**Spoiled for choice? An applicant-centred approach
to understanding UCAS decision making.**

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A thesis submitted for the award of Doctor of Philosophy.

Declaration.

I, Susan Jane McGrath, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Word count:

Thesis (including tables, figures and footnotes)….….79857

References……………………………….…………6049

Appendices…………………………………………. 8764

Abstract.

Despite the consistent rise in the number of young people entering university, statistics show that class-based disparity in progression continues. Those from advantaged families are over-represented at prestigious institutions to which the less-advantaged rarely apply. A gap in the literature on progression concerns the application process itself: how *do* young people choose the universities for their UCAS form?

Using card-sort tasks within an interview format, six cohorts of Year 13 students (56 in total), described the decision-making stages that underpinned their university choices. Some had researched, longlisted and shortlisted. Others applied only to their local universities. Significant differences in knowledge and understanding were often cohort-specific. As the educational environment became more HE-oriented, students' ability to use and evaluate resources increased. However, within-cohort variation demonstrated the power of personal motivation to expand or restrict the choice of universities.

The conceptual framework drew on two theorists. Bronfenbrenner's Bioecological Model explores how *person-process-context* interactions determine developmental outcomes, whilst recognising that less-advantaged families lack capacity to manipulate social environments. Simon's Behavioural Model of human decision-making acknowledges the need to simplify complex tasks, suggesting UCAS applicants may be *satisficing*, rather than *optimising.* Both models recognise knowledge and 'know-how' as determinants of behaviour. A synthesis of the two suggested that having a strong knowledge structure at the start of the process was linked to 'cold' reasoning and a macro-focussed approach to decision-making. A weak knowledge structure was linked to 'hot' reasoning and a micro-focussed approach reliant on family or friends. *Pragmatising* emerged as an effective decision-making style.

The 'curricular' approach to UCAS information, advice and guidance in the independent school produced discriminating, well-informed decision-makers. The state sector, 'opt-in' model left some students unaware of key resources, even the UCAS website. Providing adequate support for all UCAS applicants might be a step towards achieving parity in progression.

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List of Acronyms.

DBIS	Department for Business, Innovation and Skills.
BTEC	Business and Technology Education Council.
BTEC ND	Business and Technology Education Council National Diploma.
CF	Conditional Firm acceptance (UCAS).
CHE	College of Higher Education.
CI	Conditional Insurance acceptance (UCAS).
CSE	Certificate of Secondary Education.
CV	Curriculum Vitae.
CVCP	Committee of Vice Chancellors and Principals (UK).
DERA	Digital Education Research Archive.
DES	Department of Education and Science.
DfEE	Department for Employment and Education.
DfES	Department for Education and Skills.
DfE	Department for Education.
FE	Further Education.
GCE	General Certificate of Education.
GCSE	General Certificate of Secondary Education.
HE	Higher Education.
HEA	Higher Education Academy.
HEFCE	Higher Education Funding Council for England.
HEIST	Higher Education Information Services Trust.
HELOA	Higher Education Liaison Officers Association.
HESA	Higher Education Statistics Agency.
HMC	Headmasters' and Headmistresses' Conference.
HND	Higher National Diploma.
IAG	Information, Advice and Guidance.
ICO	Independent Commissioner's Office (UK).
ISC	Independent Schools Council.
ISCO	Independent Schools Careers Organisation.
LA	Local Authority.
LEA	Local Education Authority.
LSDA	Learning and Skills Development Agency (UK).
MORI	Market and Opinion Research International.
NAO	National Audit Office.

NCS	National Careers Service.
NEET	Not in Education, Employment, or Training.
NSF	National Student Forum.
NSS	National Student Survey.
NYEC	National Youth Employment Council.
OFFA	Office for Fair Access.
OFSTED	Office for Standards in Education, Children's Services and Skills.
PCAS	Polytechnics Central Admissions Service.
PI	Performance Indicator.
POLAR	Participation of Local Areas classification groups.
RG94-universities	Russell Group and 1994 Group universities.
SEU	Subjective Expected Utility.
TCCH	Training Colleges Clearing House.
TEF	Teaching Excellence Framework.
UCAS	Universities and Colleges Admissions Service.
UCCA	Universities Central Council on Admissions.
WP	Widening Participation.
YES	Youth Employment Service.

Introduction.

Genesis of the project.

My career to date has been based entirely in education, but falls into complementary halves. I began as a lecturer in psychology, working in further and adult education. Students often asked me for help with university applications, and it was evident that some had very little understanding of the university sector, or how to access information, advice and guidance (IAG) that could inform their decision making. In 1992, as Head of Psychology in a Further Education (FE) college, I entered a franchise arrangement with a local grammar school to deliver A level psychology. All of my sixth form students were applying to university, and it was obvious that they derived huge benefits from spending seven years in an environment designed to steer them towards university choices that best matched their needs and abilities. This focus affected every aspect of school life, curricular and extra-curricular, and was communicated to families regardless of the home background of the pupil. The contrast with the experience of some of the college students was stark. In 1993, my college entered a franchise arrangement with one of the new post-92 universities. I was now teaching on undergraduate courses and, as part of a staff development initiative, my college offered to fund postgraduate study. This provided an opportunity to test my observation that the process of moving from a school or college to university did not take place on a level playing field. I decided to explore the impact of different models of IAG provision on UCAS applicants, and began a two-year longitudinal study in four schools and colleges that had distinct structures of IAG for sixth formers. At the outset, this was intended as a PhD project in Education but, when the fieldwork was complete, two factors changed my plan. First, the findings showed that whilst IAG models did have a significant impact on progression, it was apparent that a greater focus on individual differences would have provided further insight into UCAS outcomes. Second, my supervisor decided to take early retirement, and suggested that I submit my existing data as an MPhil, then immediately begin a psychology-based PhD with a new supervisor, taking an applicant-centred approach. This appealed to me and I had the finance to support it, but by the time I had submitted my PhD proposal I had been unexpectedly promoted into my first management role, and I decided to put my research plans on hold.

The second half of my career was spent in the university sector, first as Admissions and Recruitment Manager in a small, specialist institution, and later as Head of Student Recruitment and Marketing at a large post-92 university. Having started my career by supporting applicants, I was now selecting them. From 1997, with

the advent of the New Labour widening participation (WP) agenda for higher education, my remit broadened to include WP projects. As each activity was completed and evaluated, I became increasingly convinced that these educational interventions did not have the power to redress class-based disparity in progression to prestigious universities. The projects raised awareness and often created aspiration, but they did not compensate for a home background and school environment that provided none of the activities that routinely prepare young people from middle-class families for a place at a prestigious university. Two other aspects of my work during this period fostered a growing interest in progression. The first of these was the experience of leading a practitioner-research project (McGrath and Millen, 2003) that highlighted the dramatic loss of expertise in schools following the replacement of Careers Companies by Connexions. The second was an invitation from UCAS to act as Chair of a project group investigating the feasibility of a national, online prospectus service (UCAS, 2010). These projects highlighted the increased need for young people to carry out *independent* research, because the WP agenda had resulted in the loss of IAG provision for UCAS applicants in many state sector schools and colleges.

During a decade of responsibility for admissions and recruitment, thousands of UCAS forms had passed across my desk for comment or advice, and this had often caused me to reflect on a gap in the progression literature: understanding of the UCAS decision making process itself. The mechanisms by which university applicants choose just five courses in a highly centralised entry system with thousands of options, did not seem to have been explored in any detail. Discussion with professional colleagues indicated that this was widely regarded as a topic that was under-researched. My experience of WP projects suggested this gap might be partly explained by the paradigms within which such activities were often conducted. My colleagues seemed to be operating from one of two main perspectives: a sociological approach that used inductive methods to study social and group effects, or a deductive, quantitative approach based on analysis of large scale datasets. A psychological perspective, that might have addressed individual differences, was lacking. It seemed that an applicant-centred approach to explaining UCAS choice might also have the potential to explain a paradox in the progression literature: prestigious universities are dominated by middle-class students, but some working-class students *do* enter such universities, despite their less-advantaged backgrounds.

In 2010, almost twenty years after beginning my research, I submitted a PhD proposal that would expand on my MPhil and utilize the additional knowledge and understanding gained through my professional practice. The primary aim of the study was to discover how young people navigate the decision making process that

culminates with their acceptance of a Conditional Firm (CF) and a Conditional Insurance (CI) university with UCAS. This thesis explains how 56 students, in their final year of school and college, made that journey.

Parameters of the study.

More than half a million prospective university students become UCAS applicants every year, and they form a diverse group who complete their application according to personal criteria that may be linked to factors such as age, gender, ethnicity, religion, disability, or sexual orientation. Including all of these variables would have been beyond the scope of a self-funded PhD project carried out by a single student. The study was therefore designed within parameters that were realistic and achievable. The chosen sample reflected the largest group of UCAS applicants: young people progressing directly from school or college to full-time undergraduate degrees; that other samples could have produced different outcomes is acknowledged. The sample size balanced the need to collect sufficient data to draw valid conclusions, with the demands of the fieldwork schedule. The 56 student participants included A level students in the sixth forms of two 11-18 schools (one state sector and one independent), and both BTEC and A level students in a sixth form college and an FE college. This diversity in fieldwork sites reflected the range of 16-19 provision in the UK, it also acted as a proxy for social class, since school type and curriculum are not independent of home background. The sample reflected the gender balance and ethnic diversity of the schools and colleges, but neither gender nor ethnicity were used as variables: the sample size would have been too small for any evidence-based statements to be made.

Collecting the data.

The data had to investigate how young people choose five courses for their UCAS application form, and then accept Firm and Insurance offers, conditional upon their examination results meeting the entry requirements. The objectives therefore had to measure a process that involved several distinct stages, and might have spanned several years. Five research questions were designed to achieve this:

RQ1 Which UK universities had the students heard of, and what factors influenced their knowledge?

RQ2 What sources of information had the students used, and how did they value these sources?

RQ3 How did the students generate a longlist, and which universities did they include?

RQ4 How did the students select a shortlist, and which universities did they include?

RQ5 What factors determined a student's final choice of Conditional Firm (CF) and Conditional Insurance (CI) universities?

A mixed-methods approach that collected data at a single point towards the end of the UCAS cycle was deemed to be the most suitable means of collecting the data. A longitudinal approach would have required greater access to students than schools felt able to provide during what was, for the students, a crucial year of study.

Unpicking the process by which applicants researched, longlisted and shortlisted universities required a novel approach to data collection. In the six months prior to commencing the PhD, I was able to carry out a research tools trial that investigated the potential of a range of standard techniques such as questionnaires and focus groups, along with some less common approaches such as vignettes and card-sorts. This demonstrated that card-sorting tasks, embedded within an interview format, had the capacity to elicit responses that generated a body of rich data. The research tools created for the study acted as a 'scaffold' for the applicant's reflections of a process that sometimes covered a period of several years. They measured behaviour at key stages of the decision making process, producing both quantitative and qualitative data. Analysis and interpretation of the findings provided both factual and conceptual answers to the research questions, making a useful contribution to existing knowledge.

Context of the study.

The students who participated in this research had been educated entirely within the New Labour era, which was dominated by the WP agenda. For prospective university students, a crucial initiative had been the replacement of the Careers Services with Connexions. Personal Advisers in this new service had a remit to focus on those students at risk of leaving education at sixteen. This had left sixth formers and college students highly dependent on the 'expertise' of school or college staff for IAG to support UCAS decision making.

The fieldwork took place during the 2010/11 UCAS cycle, a period of political turbulence, as the newly elected Coalition government removed many of the WP initiatives and funding. All of the state sector cohorts had staff who were facing redundancy, thereby depleting IAG teams already struggling to cope. As the UCAS

cycle got underway, the proposal to increase tuition fees to £9000 led to demonstrations, occupations and walk-outs by students and academics. The students who took part in this research were the final year to enter university before the introduction of the new tuition fees regime.

The timing of the fieldwork had an impact on the first three chapters of the thesis, which provide a historical perspective that offers a foundation for the contemporary situation. In outlining the policies and practices that moved the UK from elite to mass provision of higher education, the chapters do not cover the significant changes made since the general election of May 2010. These changes did not impact on the students who participated in the fieldwork. However, the document ends with a reflection on the situation for students applying to university in September 2017, when this thesis was submitted.

Structure of the thesis.

Chapter One gives a historical perspective on access to university provision, showing how differences between aspiring university entrants do not simply emerge at the start of the UCAS cycle, but are part of the fabric of class-based disparity in educational opportunities. Chapter Two moves to the topic of IAG services for prospective university entrants, contrasting the consistently high quality of independent sector provision with the turbulent and sometimes inadequate state sector provision. Chapter Three considers how open access to information via Google, has replaced information provided by IAG staff, leaving many young people ill-equipped to sort fact from fiction. Chapter Four describes the choice of methodology and methods for the study. Chapters Five to Nine present analysis and interpretation of data structured by the five research questions. Chapter Ten discusses the findings at a conceptual level. Chapter Eleven considers the conclusions and implications of the study.

Chapter 1: Environmental influences on progression to university.

Introduction.

This chapter considers three environmental influences on progression to higher education: the universities, schools and colleges, and home background. The chapter draws on research literature and statistical datasets to explore the evidence that shows disparity in rates of progression to university by young people from different social backgrounds. An historical perspective is adopted because it offers a foundation for understanding the contemporary situation. Development of the higher education sector, from the elite universities of Oxford and Cambridge to the mass provision of the early 21st century, has tended to benefit those from relatively advantaged backgrounds.

The final section of the chapter introduces Bronfenbrenner's Bioecological Model of human development. The model illustrates how the micro- and mesosystems of home and school are consonant for most young people, with working-class families unable to access what Bronfenbrenner described as the 'circles of power' in the macrosystem. But the model also acknowledges the importance of person-process-context interactions, which can result in behaviour that would not have been predicted by home background. This has the potential to explain an apparent paradox in the literature: whilst prestigious universities are dominated by middle-class students, some young people from working-class families *do* enter elite universities.

1.1 Elite provision to mass participation.

1.1 (i) The growth of a sector: Oxbridge, Red Bricks, Plate Glass and post-92s.

For centuries, the only form of undergraduate education in England was the teaching of a 'liberal' education, grounded in the classics, and offered by Oxford (established 1167) and Cambridge (1209) to those young men who were destined for a career in the church or civil service. The money invested in a university education was intended to pay a social dividend, and Brockliss (2016, p46) suggested that many of these early scholars had made a ''smart career move'. Records show that by 1500 the leadership of the church was overwhelmingly formed of university men. At both universities, the student intake drew upon the yeomanry, artisans, stewards and scribes, and Evans (2010) noted the absence of the gentry. Not until the 17th century (when landowners realised the usefulness of a career in the church for younger sons) did the majority of` students identify themselves as sons of clergymen or gentlemen. By the 19th century, the old universities were seen to be out of touch with an increasingly industrialised urban society, and their exclusion of many potential students (including

Catholics, Jews, non-conformists, women and the poor) motivated the founding of new, 'civic' universities (Harte and North, 1991). The civic universities were founded to offer a broader range of study and were, from the outset, liberal, secular and middle-class (Jones, 1988). Durham University, the Victoria University (which had centres in Manchester, Liverpool and Leeds) and the federal London University were joined in the early 20th century by the so-called 'Red Brick' civic universities of Birmingham, Manchester, Liverpool, Leeds, Sheffield, Bristol and Reading. By the end of World War II, despite a significant increase in the number of students, there were still fewer than a dozen universities in England, and the social mobility that had been a feature of the mediaeval university had largely disappeared. The civic universities had been inspired by a vision of college for the middle-classes and their intake shared a common social background (Whyte, 2015).

Between 1948 and 1957 five more English civics achieved university status, and between 1961 and 1967, the construction of new universities, informally termed 'Plate Glass' due to the predominant architectural style (Rich, 2001), provided sufficient university places to facilitate the first major shift towards open participation in higher education. This growth was heavily influenced by two government reports. The Robbins Report (1963) argued that university places should be available to all who were qualified for them by ability and attainment (often referred to as the 'Robbins principle'). The Anderson Report (1960) recommended a national system whereby every student enrolling on a first degree course would pay no tuition fees and be eligible for a means-tested maintenance grant. Any student who could meet university entry qualifications could now afford to apply for a place.

The majority of young people were still excluded because they did not have the qualifications required by the universities, but the publication of *A Plan for Polytechnics and other Colleges* (Department for Education and Science, 1966) offered a means of continuing education for these students. The role of this new sector was to be skills-focussed rather than academic, and funding would come from the Local Education Authorities (LEA), keeping this new form of higher education rooted in its locality and responsive to local needs. The new polytechnics were mostly formed from mergers of existing colleges: for example, Wolverhampton Polytechnic initially combined the local College of Technology and College of Art (Haynes and Meakin, 2013). The total number of higher education students steadily increased as the polytechnics expanded in line with the 'Robbins principle' (Bone, 1992), but the curriculum also expanded, partly in response to demand, and partly due to further mergers. Haynes and Meakin described how Wolverhampton rapidly doubled its student numbers. This was partly due to absorbing four colleges of education, two colleges of nursing and a school of

design, but was also the result of curriculum changes. As the new institutions recognised that what people wanted from a polytechnic education was access to the same range of degree courses as those in the university sector, the polytechnics began to provide this. This was a departure from their intended purpose of being skills-focused. Donaldson (1975) found that the student body at a polytechnic included many middle-class students who may have been unsuccessful in entering a university, and Pratt (1997) suggested that working-class students attending polytechnics were most likely to be found in those that offered part-time courses, particularly if employer sponsorship was available.

By the early 1980s, growth in the university sector itself had stalled due to the imposition of significant cuts in government funding, amounting to an overall loss of 13-15% of total income over the period 1981-1984 (Taylor, 2003). Continuing growth in the polytechnics and the emergence of Colleges of Higher Education (CHE), which were also LEA funded, resulted in the majority of higher education students being in the non-university sector (Pratt, 1997). The Education Reform Act (1988) took polytechnics and CHEs from the LEAs and put them into a new sector, creating a binary divide within higher education, and giving the universities a higher level of funding. Just four years later, the Further and Higher Education Act (1992) was intended to end this inequity. It created a single funding body, the Higher Education Funding Council for England (HEFCE), and gave polytechnics the right to become universities, awarding their own degrees. This opportunity was rapidly taken up, and by the end of 1992 the number of universities in England had almost doubled. This offered a university education for those young people who chose to follow vocationally-oriented courses or who would not quite have reached the high entry requirements of most established universities.

One largely unforeseen consequence of the newly created 'post-92' universities was that many of them, having reached the limits of their allowed capacity, expanded further by franchising the first two years of popular degrees to local FE colleges (Parry and Thompson, 2001). It was now possible to complete most of a university-validated degree course without ever attending the university itself, often with an option to convert the two years of college-based study to a Diploma in Higher Education for those who did not wish (or were not able) to travel to the parent university for the final year of the degree. Abramson (1996) described such collaboration as a way for universities to widen and deepen the pool of potential students. Franchise arrangements offered a direct, local and non-threatening route to higher level study that produced diplomates and graduates who may not otherwise have considered higher education. These franchise students in FE colleges were overwhelmingly from the working-classes.

Continued growth in the higher education sector has been described as a move from elitism to massification, though Scott (2003, p75) perhaps more accurately called it "quantitatively mass but still qualitatively elite". In reality, the 'elite' universities have maintained a clear separation from the new institutions, perhaps most obviously by the formation in 1994 of the Russell Group (Oxbridge, and most of the civics and Red Bricks) rapidly followed by the 1994 Group[1] (Plate Glass, and most of the remaining civics and Red Bricks). These groups gave cohesion, purpose and identity to those universities already favoured by independent school students. The 'new' universities, including the post-92s and the former CHEs, continue to be predominantly associated with the working-class and with non-traditional students.

1.1 (ii) Progression statistics and social class.

Growth in the number of higher education students was accompanied by concern that the middle-classes dominated university intakes. The Robbins Report (1963), in arguing that university places should be available to all with the ability to benefit had included a survey of 21 year olds classified into five groups according to father's occupation. When a father's occupation was classified as 'higher professional', 45% of the respondents had experienced full-time higher education. Where the father's occupation was described as 'semi- or un-skilled manual', participation in full-time higher education fell to just 2% of the group (Robbins, 1963, Table 21). Thirty years later, the Dearing Report (1997) noted that full-time, first degree students from the Registrar General's socio-economic groups lllm-V (manual workers) had, by 1995, accounted for 28% of the student population (Dearing, 1997, Table 7.1). The report also observed that the share of participation in higher education by those from groups I and II (professional and managerial) was much higher than their share in the economically active population, whilst the reverse was true for those from all other social groups (Dearing, 1997, Chart 7.1). It is worth noting that the increased participation of students from lower social-economic groups noted by Dearing was in part due to the 1992 Higher Education Act having brought polytechnics into the university sector: the polytechnics had always attracted a higher percentage of students from social classes lll-V (Bolton, 2010).

The Department for Education and Skills (2003a), commenting on achievements in widening participation, found that although the number of young people from social classes III-V who were participating in higher education had grown from 10% to 18%

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[1] The 1994 Group was dissolved in November 2013 after several of its high-performing members had left to join the Russell Group.

between 1990 and 2000, the participation rates of young people from social classes I and II had also increased, from 37% to 48%, suggesting a 'class gap' of 30% (DfES, 2003a p7). In 2002/03 the way in which social class participation rates were measured was changed to give a more accurate reflection of the underlying population base and new data suggested the class gap in participation rates was actually 24% (Kelly and Cook, 2007). The National Audit Office (NAO, 2008) commented on participation rates amongst young people living in deprived areas, which had seen an increase of 4.5% since 1998, compared to an increase of only 1.8% in the least deprived areas, but noted that whilst people from lower socio-economic groups made up around half the population of England, they still represented only 29% of young, full time entrants to higher education.

Data from the Higher Education Statistics Agency (HESA, 2013) for the period 2002/3 to 2012/13 showed that whilst the percentage of full-time, young undergraduate students who came from the newly defined NS-SEC groups 4-7 (National Statistics Socio-Economic Classification, 2001) rose from 28.4% to 32.3% during this period, they were not equally spread across all universities with some recruiting less than 10% of their students from these groups. The massification process that had resulted in more young people attending university had now raised a second issue in relation to widening participation: the differential in status of the institutions attended by middle-class and working-class students.

1.1 (iii) Social class and access to prestigious universities and courses.

The Dearing Report (1997) had recommended that steps should be taken to establish suitable indicators and benchmarks of performance for universities in order that social class of entrants could be monitored and, in 1999, HEFCE published the first set of performance indicators (PIs) relating to WP and retention. Since 2002/3, this data has been published by HESA under the advice of the UK Performance Indicators Steering Group (HESA, 2016). It has been widely used by institutions, researchers and policy makers, drawing on both the socioeconomic status data as a direct indicator of social class, or the type of school attended as a proxy for social class.

Statistical data has provided clear and consistent evidence that prestigious courses and universities accept disproportionately more students from advantaged backgrounds. However, the Sutton Trust (2005) warned that dramatic increases in targets for state-educated students at prestigious universities must not overstate the number of appropriately qualified students. They cited sharp increases between 2001/2 and 2003/4, when Cambridge rose from 68% to 77% and Oxford rose from 69% to 77% (Sutton Trust, 2005, p3). The Russell Group (2014) described WP Performance

Indicators as 'fundamentally flawed' because they did not take sufficient account of the subjects studied as well as the grades achieved. They pointed out that their universities could only offer places to those who applied, and claimed that a shortfall in the number of suitably qualified applicants from less-advantaged backgrounds worked against the achievement of admission benchmarks. The Russell Group cited medicine as an example of a course offered in many the Group's universities that has very specific entry requirements; even an applicant with four A* grades at A level would fail to obtain a place if they had not studied the required subjects. The medical profession added to the debate with the publication of *Selecting for Excellence* (Medical Schools Council, 2014) which drew upon UCAS and HESA data to demonstrate the very low numbers of applicants from lower socio-economic groups, stressing their ongoing mission to widen participation.

Milburn and Shephard (2013), reporting the outcomes of the Social Mobility and Child Poverty Commission report on fair access to higher education, drew on the 2013 HESA data which showed that despite an overall rise in the percentage of students coming from state schools over the previous decade (from 85% to 89.3%), some universities had recruited more than 95% of their students from the state sector whilst others had a state school intake that was little more than half of their student numbers. Milburn and Shephard commented that state school educated entrants to both Cambridge and Oxford formed less than 60% of the student body, although more than 90% of young people have been educated in the state sector. They also noted that many of the prestigious universities that make up the Russell Group had seen a *fall* in the number of state-educated and lower social class entrants between 2002/3 and 2011/12.

Concern with apparent inequities in social class has not been restricted to the academic literature; the issue is consistently aired in the mainstream press in articles that refer to 'posh' universities and 'poor' students (Halpin, The Times, 2005; Paton, The Daily Telegraph, 2010; Davis, The Guardian, 2010; Ellis, The Mirror, 2013). Individual cases have sometimes attracted considerable publicity. For example, after Gordon Brown (then Chancellor of the Exchequer) publicly expressed his dissatisfaction that Laura Spence, a well-qualified state school applicant, had been rejected by Oxford university and subsequently won a scholarship to study at Harvard, there was considerable media coverage of her case. Less frequently included in the coverage was the fact that Spence had been rejected for a vocational course, medicine, and that her scholarship offer from Harvard was *not* for medicine (Ryle, Ahmed and Bright, 2000). Spence later returned to the UK to complete a graduate

course in medicine at Cambridge, which again attracted media coverage (Daily Mail Online, 2008).

A series of reports for the Sutton Trust has analysed the over-representation of independently educated students at the most prestigious universities. The Sutton Trust (2004) reported on the 'missing 3000' state sector students who had achieved the A level grades needed for entry to the most prestigious universities but did not end up there. A further report (Sutton Trust, 2007) found that just 100 elite schools, which formed less than 3% of the schools and colleges offering sixth form study in the UK, had accounted for a third of admissions to Oxbridge during the preceding five years. Analysis of university admissions data by A level grades (Sutton Trust, 2009) found that the most important factor determining entry to prestigious university courses was the grades achieved. High grades (AAB) were related to entry regardless of social class or school type, but state sector students who had achieved these grades were much less likely to have applied to the most prestigious courses. This was particularly so when the applicant attended a college, and the report suggested that if college students with high grades applied to prestigious courses at the same rate as those in selective state schools, over 1,000 extra students from further education and sixth form colleges would be expected to enter the 500 courses with the highest average entry qualifications.

Confirmation that working-class applicants with high grades are not disadvantaged by family background if they *do* apply to prestigious universities can be seen in a range of studies (e.g. Gorard, 2008; Davies, Mangan and Hughes, 2009). Attempts to explain why so many academically able, working-class students apply only to relatively low status universities often seem to assume that such applicants are making informed choices based on a belief that certain types of university are not for them. For example, in the introduction to *'The Missing 3000'*, the Chair of the Sutton Trust commented in relation to 'leading universities':

> "Students who do well at school should not feel discouraged or lack the ambition to attend them."
>
> (Sir Peter Lampl, Sutton Trust, 2004, p2)

A further Sutton Trust report (Jerrim, 2013) investigated the under-representation of young people from less-advantaged backgrounds in the higher education sector, particularly at the most high-status universities, in the UK and America. One of the concerns expressed in the report was for the:

> "…significant numbers of working class children who, even though they have the academic ability to attend, choose to enter a non-selective institution instead."
>
> (Jerrim, Sutton Trust, 2013, p8).

Both reports were based on quantitative analysis of large scale data sets and did not provide direct evidence that working-class children made an *active* choice to avoid elite universities.

However, even where the research literature makes direct reference to the issue of reputation, there may still be an element of assumption. Callender (1997) found that most students were attracted by the academic reputation of their chosen institution (92% of full-time students at 'pre-1992 universities' and 65% at 'post-1992 universities'), but it should be noted that the questionnaire administered by Callender had asked about the importance of reputation without measuring whether the respondents had any knowledge of how their institution *did* compare to others. Research that directly measures knowledge of league table position for specific, named universities appears to be limited, but Ball et al (2002) found that independently-educated students were the most likely to be ranking-aware when asked to rank twelve universities selected from the top, middle and bottom of The Times league table. Even amongst those who have already entered university, differences in their understanding of hierarchies may persist. Tomlinson (2008) found a clear sense that final year, middle-class students at an 'elite' university were aware that they would have a significant advantage in the labour market. This contrasted with Greenbank (2009) who found that final year, working-class students at a low-status university often had no understanding of the possible disadvantages they might face when they began looking for employment.

The introduction of several UK league tables[2] has provided accessible means of comparing universities for more than a decade, but students do not necessarily know this. Pugsley (2004) suggested that working-class students may lack understanding of the hierarchical nature of UK higher education. Prestigious universities extend much further than Oxbridge, but many students may not be aware that a small number of universities form an elite group able to convey to their graduates lifetime benefits that exceed those derived from other universities. Oliver and Kettley (2010) found that teachers may contribute to lack of awareness if they act as 'gatekeepers' because of a belief (perhaps transmitted to the students) that Oxbridge would be an uncomfortable environment for them. It seems that the literature does not conclusively demonstrate that high achieving students in lower-rated universities have avoided elite institutions; it

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[2] Three national rankings of universities are published annually: The Complete University Guide, The Times Good University Guide and The Guardian. The Times Higher Education also publishes a 'Table of Tables'.

is possible that many believe the university they choose has a much higher reputation than is the case.

1.2 From school to university: seamless transition or dissonant steps?

1.2 (i) Independent schools: smooth progression to prestigious universities.

Links between the old, established public schools and the top universities can be traced over hundreds of years. In 1440, when King Henry VI founded both King's College, Cambridge and Eton College, the express purpose was for Eton to supply King's with "scholars already nurtured in religion and sound learning" (Hill, 1953, p7). Such was the closeness of the relationship that when a vacancy arose amongst the community at King's, it was immediately filled by one of the seventy scholars at Eton (Wilkinson, 1980). The College maintains seventy King's Scholars to this day (Eton College, 2016). There were many similar associations, for example, New College, Oxford with Winchester and Christ Church, Oxford with Westminster, creating a situation in which progression from public school to university was often a routine occurrence, though only for boys.

Cheltenham Ladies College opened in 1854 and rapidly became the model for public boarding schools for girls. In sharp contrast to the 'acquisition of accomplishments' that constituted the education usually provided to girls, the College had a curriculum centred on academic subjects, and an educational policy of developing girls' intellectual powers and attainment. Its first headmistress, Dorothea Beale, campaigned consistently for the opening of university education to women (Clarke, 1953). The Girl's Public Day Schools Trust (established in 1872) provided a similarly academic education for day pupils, and there seems to have been a clear intention to prepare some girls for university entry: Leeds Girls' High school, opened in 1876, was already sending students to Cambridge by the 1880s (Jewell, 1976).

Given this background, it is unsurprising that the Crowther Report (Crowther, 1959) had observed that public schools appeared to enjoy 'more than their share of luck' in getting pupils in to university, suggesting that many admissions tutors had personal knowledge of the independent schools, the qualities they would expect in a school's candidates, and the value that could be placed on individual Head Teacher's reports (Crowther Report, 1959, Vol 1, para 442).

The belief that private schooling will provide a higher standard of education seems to be widely and consistently held by parents who choose it (e.g. MORI, 1989, 2008). Gathorne-Hardy (1977) suggested that the emphasis in independent schools on achieving very high success rates in public examinations coincided with the first moves

towards mass higher education. Faced with intense and open competition for university places, the public schools intensified their work orientation in order to ensure their pupils continued to enter the top universities. Parents who choose the independent sector appear to see it as offering relative safety in terms of academic achievement when compared to local schools, which may be perceived as a risky choice (West et al, 1998). Gorard (2008) made the obvious, but sometimes neglected, point, that since university places have for many years been awarded on the basis of prior qualification, it should be expected that those from higher social classes will take up disproportionately more places.

If academic achievement is measured by A level results, there is ample evidence to support parental beliefs in the value of paying for education, since Performance Tables are persistently dominated by independent schools (Department for Education, 2015). These students continue to outperform at university, since 82% of independent sector students achieved a first or upper second class degree in 2013/14 compared to 73% of those from the state sector (HEFCE, 2015). However, when degree classifications are compared for students who entered university with the *same* A level grades, the balance shifts, with state sector graduates outperforming their independently educated peers (e.g. HEFCE 2003, 2005, 2015). It would seem that independent education may be more successful at enabling students to reach their full academic potential at secondary school, but that state sector students continue to develop academically after they enter university. Since having top A level grades is required for entry to the most prestigious universities, parents paying for a secondary education that will enable their child to have reached full potential by the age of eighteen may well feel they have had value for money.

1.2 (ii) State schools: education as politics.

While the independent sector has enjoyed a long and stable history, characterised by links with the old, established universities, the state sector, in its relatively short life, has been subject to significant change. Free, universal secondary education did not exist until the 1944 Education Act, which gave all children access to a tripartite, secondary education system. Responsibility for deciding the kind of school that appeared to best suit the aptitudes and abilities of each child was given to LEAs. The 11-plus examination was widely used to select a minority of children who would attend grammar schools, which offered the curriculum and examinations required for university entry. The majority of young people studied at technical high schools or secondary modern schools, which offered little prospect of any academic education beyond the school leaving age.

The first official move towards a comprehensive education system that could offer progression opportunities to all children came from the Labour government elected in 1964, was withdrawn by the Conservative government of 1970 and then reinstated by a Labour government in 1974. Regardless of party politics, the removal of selection and spread of comprehensive schools continued rapidly and, by 1981, 90% of children were in comprehensive secondary schools (Rogers,1980). The majority of the secondary sector has now been comprehensive for more than thirty years, although some areas always retained selective grammar schools, and government initiatives (such as the Assisted Places scheme, City Technology Colleges, and the Specialist Schools' Programme) have, to some extent, offered alternative forms of selection (Walford, 2006). The remaining grammar schools cater predominantly for middle-class children, and the grammar school debate periodically returns to the political agenda amidst (disputed) claims that grammar schools can offer social mobility for academically able children from poor homes (e.g. Conservative Party Manifesto, May 2017).

In theory, comprehensive education offered all pupils an equitable chance to succeed and progress. In practice, there was considerable variation, from those schools deemed to be 'failing' through to those with academic results that rivalled the best of the independent sector. The Education Reform Act (1988) supported the notion of parental choice, but Carroll and Walford, (1997) described the sector as a quasi-market, in which middle-class families 'play the system' more successfully than others. Waterman (2005) suggested that 'more choice for parents and pupils', which was used as the strapline of a government White Paper (DES, 2005) simply favoured those parents who already had the knowledge and resources to manage the admissions system. Waterman cited moving house, or collecting evidence of religious observance, as two means of achieving a place at a chosen school. The idea that a state sector parent can form a long-term educational plan from their child's earliest years is far from the reality experienced by many families.

Concern that some state schools were seriously failing their students was a key focus of the early years of New Labour, elected in 1997 on a manifesto that made education the number one priority (Labour Party,1997). The announcement of an academies programme (Blunkett, 2000) that would remove some underachieving schools from Local Authority (LA) control and place them in the hands of 'sponsors' (mostly successful entrepreneurs who could contribute towards the cost of new buildings) was a significant new development. In essence, these would be *independent* state schools. The first three academies opened in 2002, and by 2007/8 there were 83, but views on their achievements were mixed. The National Audit Office (NAO, 2007)

found that most academies were making good progress, although results in English and Mathematics were low. The NAO did express concerns about advanced level study, and suggested that whilst there may be a good case for an academy having a sixth form, the grounds for this would need to be solid. Gorard (2009) cast doubt on the success of academisation, which he said did not show clear evidence of improvement if such factors as the changing composition of the intake, and examination entry practices, were taken into account. Gorard suggested that it was not clear that all academies had replaced schools that had highly deprived intakes. Leo, Galloway and Hearne (2010) warned of the risks associated with further expansion of academies, particularly the bureaucratisation that might become an inevitable part of larger, multi-academy trusts. Machin and Vernoit (2011), using data from 2001/2 to 2008/9 offered a relatively positive view of academies, linking increased autonomy to improvements in pupil intake and performance.

Despite the mixed reviews, Academies had set a precedent. One of the first acts of the Coalition government elected in May 2010 was to extend the right to independence to *any* school that wished to move away from LA control (Academies Act, 2010). The original academies had numbered 203 by 2009/10 (DfE, 2012) but five years later only 40% of secondary schools were still LA schools (Ofsted, 2014). The Academies Act had also provided the legal basis for the setting up of Free Schools, which were seen by the Coalition government as a means of driving social mobility in areas of high deprivation. In practice, free schools were attractive to middle-class parents seeking to establish a high-quality school in their local area, and this view was aired in the education media when analysis of the first 24 successful proposals became available (Vasagar and Shepherd, 2011). Higham (2014) found that proposers in highly disadvantaged areas did not always have aims and expertise that could result in a successful proposal.

State secondary education, which began in 1944 with an attempt to mimic the independent sector's curriculum for a small number of academically able children has, for the past decade, mimicked it by making state schools themselves to some degree 'independent'. However, recent proposals to compel all remaining LA schools to become academies have been withdrawn in the face of pressure from schools, teachers, parents and politicians (DfE, 2016).

1.2 (iii) Qualifications and curriculum: continuity or vacillation?

In 1951, a new national qualification was introduced. The General Certificate in Education (GCE) was to be offered at Ordinary (O) and Advanced (A) levels. The GCE qualification was intended for those young people following an academic curriculum

that could lead to university, with the O level providing an earlier exit point for those who chose to enter the job market instead. The examining bodies were dominated by three universities (Oxford, Cambridge and London) and A level was rapidly established in independent schools and state grammar schools as the route from school to university.

By the 1960s, acceptance of this qualification amongst employers meant that many posts for young job seekers specified five GCE O levels including English and mathematics as a standard entry requirement. Some secondary modern schools did offer GCE at Ordinary level to their most able students, but most school leavers now lacked the key qualifications needed to enter many jobs (Roy, 1986). In 1965, the Certificate of Secondary Education (CSE), was introduced to fill this gap. The top grade of CSE was linked to an O level pass to give the new test a broader currency, but it was never accorded the same status by employers (Gipps, 1986). During this period there were frequent calls for a single method of examining pupils at age 16 (e.g. Schools Council, 1971). In 1988, the General Certificate of Secondary Education (GCSE) replaced O levels and CSEs, and has provided the main assessment for all sixteen year olds for almost thirty years. This has not happened for 16-19 qualifications, where GCE A level has remained largely unchanged for more than sixty years, despite several serious attempts to move beyond it (Hodgson and Spours, 2003). The most commonly offered vocational alternative is the National Diploma introduced by the Business and Technology Education Council (BTEC) in 1984. The BTEC is studied primarily by working-class students, often in FE colleges. Attempts to introduce 'hybrid' qualifications that would encourage mixed study have been unsuccessful.

Although state primary and secondary education has been available to all children since the 1944 Act, a National Curriculum for state schools was not introduced until the Education Reform Act (1988). Since independent schools have never been constrained by an externally imposed curriculum, and neither academies nor free schools have been required to follow the national curriculum, its role and purpose can be questioned (Morris, 2012). The independent sector has always placed a strong emphasis on traditional academic subjects believed to be favoured by the most prestigious universities. The Russell Group (2011) publicly confirmed the veracity of this belief by listing 'facilitating subjects' (maths and further maths, physics, biology, chemistry, history, geography, modern and classical languages, and English literature) with the advice that choosing at least two of these subjects at A level would ensure that a wide range of degree courses at Russell Group universities would be accessible. An emphasis on facilitating subjects may also be a factor in explaining why state sector

applicants educated in the remaining grammar schools are more likely to progress to prestigious universities. Ianelli (2013) found that in terms of social mobility, most of the advantage associated with attendance at a selective school was accounted for more by the opportunity to follow a curriculum that mirrored the independent sector (focusing on English, mathematics, languages and sciences) than by social class or individual ability. Crawford (2014) in a detailed analysis using several national datasets, found that university students who had attended *selective* state schools were more similar to their independent school peers than to the rest of the state sector.

During the New Labour era, schools were encouraged to offer alternatives to GCSEs for those students who might be better suited to vocational courses. In 2004, the Comprehensive Spending Review (H M Treasury, 2004) allowed schools to include vocational qualifications *equivalent* to 5 GCSEs at A*- C grades in school performance tables for the first time. This undoubtedly provided opportunities for some young people to achieve certificates they may not otherwise have had. However, a review commissioned by the 2010 Coalition government, described vocational qualifications as "well-meaning attempts to pretend that everything is worth the same as everything else" (Wolf, 2011, p8). The independent sector has shown very little interest in vocational alternatives for students who are less academically able. West et al (1998) found that 68% of private school parents said they would *not* want their child to gain a vocational qualification. Data published annually by the Independent Schools Council (ISC) shows that vocational qualifications only appeared in their results list for the first time in 2010, and listed just fifteen schools (less than 4% of the total) offering any BTEC qualification (ISC, 2010).

Hodgson, Spours and Rogers (2017) argued that successive governments have vacillated between a 'tracking' approach that makes strong distinctions between academic and vocational qualifications and a 'linked' approach that encourages common curricular features. It seems that vacillation has had no place in the independent sector, which has consistently sought to maximise the number of pupils achieving the qualifications expected by prestigious universities.

1.3 The influence of family and friends.

1.3 (i) Plans, expectations and social networks.

In middle-class families, many parents appear to have clear, long-term plans intended to help achieve personal ambitions for their children: Foskett and Hemsley-Brown (2000) found that entry to a 'good' university was regarded as an essential step

on the route to a high-reward career. In contrast, Pugsley (2004) found that whilst some working-class parents were very proud if their sixth former son or daughter announced an intention to apply for university, the parents' "naiveté about the university system was quite shocking" (p91) and they lacked the skills, competencies and support networks that could have enabled them to make considered choices between universities.

The capacity of a family to produce role models is also important in setting up expectations for the future. Cochrane (2010) found in a series of group interviews with Year 9 pupils that around one third already had a single career aim, and most were clear about the type of work they wanted to do. In describing possible career options, they frequently referred to role models within the family who had often been an influence from a very early age. Since such role models typically shared the same social and cultural background as the pupil, Cochrane suggested this family influence could be a mechanism in perpetuating advantage or disadvantage. Prospective university students who will be first generation entrants are unlikely to have had any familial role models who provided knowledge or expectation of a graduate career, apart from those jobs that are recent graduate roles, such as nursing.

The role of the parent in providing an environment that will support university entry can begin at a very young age. Vincent and Ball (2006) described 'enrichment' activities from the nursery stage onwards, and found that middle-class families could use their financial advantage not only to provide an expectation of extra-curricular opportunities before the child had even started school, but also to extend their time budgets by 'buying-in' such activities. The obvious benefit of such activities is the range of skills and experiences provided, but it could be argued that they also encourage the early development of expectations that the home environment will be supplemented by a growing network of external contacts, which may establish a pattern of behaviour that continues right through to university itself. Bathmaker, Ingram and Waller (2013) found that middle-class undergraduates frequently emphasized the importance of extra-curricular activities; those students who did not engage in any activities beyond their studies were entirely from working-class backgrounds and often gave financial reasons for their lack of involvement. A potentially negative spin-off was that they did not develop any new social networks at the university but simply maintained the ones they already had, thereby missing the chance to create new links and develop skills that could have assisted their career progress. Christie (2009), interviewing non-traditional students at elite universities, drew a distinction between 'being versus doing': the non-traditional students saw themselves as 'day students' in which university was just one part of their existing way of life, and contrasted this with those they perceived to be

'students', who lived in halls, did not have regular paid employment, and for whom university *was* their life.

Parental emphasis on the importance of social networks may also exert an influence on choice of school. Singer (2002) had noted that the choice of an independent school may result in smooth progression from ages three to eighteen, in which case early social networks may last for many years, with many opportunities for confirming evidence of educational expectations. Vowden (2012) found that even when choosing state education, middle-class parents were seeking a primary school where they themselves would 'fit in', seeing the school as a source of friendships and social networks that would extend into the home. Working-class families may have much less experience of choice, and lower expectations that school networks will become part of family life. For example, Exley (2013) found that advisers working with disadvantaged parents who had little consumer power spoke of a need to instil a sense of entitlement and teach them how to 'shop around' for schools, rather than simply wait to be allocated to the nearest school with places.

For middle-class families, the importance of learning how to develop social networks may well be linked to the expectation that an independent adult life begins straight after school. Clayton, Crozier and Reay (2009) found that many middle-class students had grown up in an environment where going to university and moving away from home, were 'part of an unquestioned rite of passage' (p165) and it was not uncommon for such students to stay away from home for weeks or months. In contrast, working-class students who did move away for university tended to make regular home visits. Pugsley (2004) found that comments of working-class parents often expressed a theme of 'keeping close', whilst middle-class parents tended to emphasise independence.

Overall, the proportion of students studying locally and/or living at home has been steadily rising. Davies et al (2008) found that whilst financial considerations were related to decisions about whether to stay at home, this was also influenced by attainments, with high GCSE grades reducing the probability of a student intending to study at a local university. Whilst Davies et al did not record the age at which their participants had first expected to go to university, it may be that high achievers in first generation families had been made aware of the possibility of university at a much earlier stage than less able peers, and so had some years to consider the possibility of leaving home. Where an applicant does not decide on university until the application cycle opens, choosing a university that would involve moving away and living in halls may seem too great a step regardless of whether it is affordable. Bowl, Cooke and Hockings (2008) found that students at a post-92 university, when compared to a pre-

92 university which had a much greater volume of advantaged students, were much more likely to have chosen a local university (64% compared to 37%) and to have continued to live at home (56% compared to 30%) and much less likely to live in halls (11% compared to 63%). Resident students who felt they did not fit the norm, either for reasons of social class or ethnicity, found that the experience of living in halls did not always help to build social networks. Atherton (2005) found that an on-campus residential project for Year 11 pupils could bring a sense of ownership crucial to addressing some of the fundamental barriers to widening participation, though it must be noted that projects in which pupils from under-represented groups stay together in halls are not necessarily representative of the experience they would have as university students.

The possible restrictions placed on university choice by a desire to continue living at home may be important to understanding differential progression. Students who apply only to universities within daily travel distance may have few, if any, of the most prestigious universities accessible to them. The literature suggests that for many working-class students, deciding whether to go to university and whether to leave home may constitute two separate decisions. For middle-class students, with an expectation that going to university means living in halls, there is only one decision: which university to choose.

1.3 (ii) Friends and substitutes.

In the absence of familial knowledge, friends and peers may become important sources of information, even if ill-informed, but research findings are mixed. Studies have found that whilst students claim *not* to discuss their choices with friends, social comparison within peer groups often resulted in an influential, collective process (Brooks, 2003; Reay, David and Ball, 2005). Such influences would be of a very different kind when friends have knowledge of the university sector than when they do not. Pugsley (2004) quoted a middle-class student who said that as several of his friends were looking at different universities he just "cadged a lift with them and we went all over". He then listed five Russell Group universities he had visited that way. In contrast, a working-class student who had not been aware that open days take place *before* the applications cycle opens simply said, "I know that I have missed everything now" (Pugsley, 2004, p25). Stuart (2006) using a life history approach, found that an undergraduate student from a working-class, single parent home attributed much of her success in achieving top A level grades and entering a good university to a deliberate decision at secondary school to form friendships with those from middle-class homes,

claiming that she had benefited from the knowledge and experience of higher education that existed in their families.

For a young person whose friends know no more than they do themselves, the opportunity to develop a relationship with someone already at university could be very influential. Gartland and Paczuska (2007) found that student ambassadors or mentors able to convey current information about their experience could have a significant influence on prospective students' orientation to university in general, to particular subjects and to particular universities, but there had to be sufficient contact to allow a relationship of trust to develop between the ambassador and the student. However, whilst an ambassador or mentor who shares their mentee's working-class background may be in an excellent position to form a supportive relationship, it would be wrong to assume that merely attending a university makes a student accurately-informed. Ylonen (2010) considered the potential tension between autonomy and accountability for ambassadors, who are often required to tell their personal story as a way of connecting with young people, but in doing so may convey information that is outdated, lacks relevance or is simply wrong. Prospective students may also fail to realise that the student ambassadors they meet at open days are being paid by their university and may not be impartial. Slack et al (2014) found that information gained from student ambassadors was given high credibility by prospective students because of a perceived synergy with the ambassadors.

1.4 Urie Bronfenbrenner: a Bioecological Model of Human Development.

The publishing of Bronfenbrenner's *Ecology of Human Development* (1979) has been described as a 'watershed contribution' to understanding human development (Bronfenbrenner, 2005, p xiii). The theory's integration of environments, from the family to political structures, created an interdisciplinary approach to studying development that translated into research models and social policies (Ceci, 2005). It offers a framework for exploring and understanding the dynamic links between environment and individual that can account for both typical and non-typical behaviour. This has the potential to explain why some young people from working-class backgrounds do enter prestigious universities.

Bronfenbrenner (1979) explained the impact that environmental settings have on development as a sequence of four nested, ecological systems, beginning with the immediate setting in which a child is raised (the microsystem), which gradually connects with an expanding range of settings in which the developing child comes to participate. Thus, the microsystem of the home is gradually expanded by new

environments (e.g. a nursery class or playgroup), creating a meso-system of related environments in which the child has a role. Additional settings in which the child does not directly participate (exo-systems) will also impact on development: for example, an older sibling already at school will influence a younger child still at home. The parents' work environment and social world are also seen as important exosystems that will exert significant and complex effects on the behaviour and development of the child, reflecting the social class of the family.

Bronfenbrenner's final environmental level, the macro-system, encompasses the dominant belief systems and ideologies of a culture, and the policies, agencies and bodies that maintain them. He recognised that within any society the micro and mesosystems experienced by well-to-do families are not the same as those experienced by the poor, and that the relationship with the macro-system may be stronger for some subcultures than others:

> "One of the debilitating factors in the lives of lower class families is that their social networks typically do not extend into the circles of power that control the allocation of resources and determine the capacity of parents to manipulate the social environment so that it becomes more responsive to their own and their children's needs."
> (Bronfenbrenner and Crouter, 1983, p399)

An important element for development is the transition from one ecology to others, which in turn changes the status of ecologies (e.g. when the child joins an older sibling at school, the school setting ceases to be part of the exo-system and now becomes part of the micro/meso-systems of the child). Ecologies are usually consistent across the micro-, meso- and exo-levels, exhibiting the patterns and structures typical of the culture or sub-culture in which the child is being raised, so transitions are relatively smooth because they are consonant with previous experience; if there is dissonance between the levels, transitions may be difficult. The nature and strength of the connections between the family and other settings are therefore important determinants of development (Bronfenbrenner, 1986).

Bronfenbrenner and Ceci (1994) expanded the original theory to emphasise that environmental settings alone cannot fully explain behaviour and development, proposing that Process, Person, Context and Time (P-P-C-T) must all be considered. *Process* refers to interactions between the individual and other persons, objects and symbols: reciprocal relationships that enable the development of the individual's potential. These *proximal processes* can be strong or weak, and play a crucial role in determining developmental outcomes: strong processes that are responsive to the characteristics and actions of the child, lead to realisation of human potential. However, characteristics of the *Person*, such as beliefs, motivation, skills and abilities

will reduce or enhance their power to influence the outcome of such interactions: some young people will be more effective at modifying or influencing their environments than others. *Context* refers to environmental settings, from micro to macro level, which vary in the resources needed to further the child's development; parents in a disadvantaged environment may lack the skills or knowledge or know-how to engage in proximal processes that further their child's learning. Advantaged, stable environments create the best opportunity for enduring forms of interaction that can enable the developing child to reach their full potential.

The disparity in class-based patterns of progression to university suggests that an advantaged, stable environment *does* appears to set in motion a process that facilitates access to a prestigious university (see Figure 1.1).

Figure 1.1 Advantaged, stable environments and preparation for university.

Context	**Process**	**Person**
Advantaged, stable home environment; high achieving school; academic curriculum; co- and extra-curricular activities; continuity of peer group; familial experience of university; presence of role models in a range of professional occupations.	Stable context encourages development of enduring interactions, first between parent and child, then with teachers and peer group. Strong proximal processes therefore support the acqusition of 'new knowledge and know-how'.	Maximum opportuity for realisation of potential produces a competent school-leaver, equipped to meet the expectations of prestigious universities, and with the knowledge to approach university choice in an informed way.

The converse of Figure 1.1 would be that disadvantaged environments would lack the resources that underpin strong proximal processes and would not facilitate progression to a prestigious university, but the theory does not prescribe such a simple, linear relationship between elements. Context, Process and Person are not passive elements, but interact in ways that may defy the home background:

> "If proximal processes are the engines of development, it is the characteristics of person and context that provide the needed fuel and do most of the steering. However, in the end, what matters most is the destination reached."
>
> Bronfenbrenner and Ceci, (1994, p 584)

Bronfenbrenner and Evans (2000) further defined a proximal process, describing it as a 'transfer of energy' that could be from either direction, the person or the environment. A positive developmental outcome will produce *competence*. Applying this to a progression debate in which some young people from less-advantaged backgrounds

do enter prestigious universities, the impetus for this could be driven by any one of the three elements: an independent school could offer a bursary that changes the educational context for a working-class student; an expert mentor could be the process by which knowledge and know-how are acquired; a motivated student could maximise use of staff and resources in a drive to enter a top university.

Applying the Bioecological Model to inform a study of UCAS decision making appears to be novel within the literature (though Bronfenbrenner's work on the developmental impact of ecosystems has been referenced in studies of educational success and progression (Raffo et al., 2010; Hodgson and Spours, 2013). However, the capacity of person-process-context interactions to explain how progression behaviour may be influenced by a bursary, a mentor or a highly-motivated student suggests potential to enhance understanding.

The final element of the P-P-C-T model, *Time* emphasised that development 'extends over the life course across successive generations and through historical time' (Bronfenbrenner, 2005, p3). This acknowledges that a child born into an advantaged family where university is an expectation will 'prepare' for university throughout childhood. It also accommodates the possibility that historical events may create generational opportunities for the less-advantaged. The move from elite to mass participation had created such opportunities for some of the student participants.

1.5 The influence of the macrosystem: New Labour's WP agenda.

Whilst the type of home and school environment can result in Process-Person-Context interactions that may increase or decrease progression opportunities, the macrosystem, driven and levered by the government of the day, has considerable power to influence who goes to university. For example, the tripartite education system introduced by the 1944 Education Act, by introducing a grammar school education that mimicked the curriculum and qualifications of the independent schools, gave academically able children from a working-class background an opportunity to apply to university.

A major change in the focus of the macrosystem that had particular relevance to this thesis began with Tony Blair's statement to the 1999 Labour Party conference that 50% of 18-30 year olds should have 'experience of higher education' by 2010 (DfES, 2003b). The expansion of vocational qualifications in schools after 2004, when they could be included in performance league tables, was matched by incentives to encourage universities to broaden their view of what constituted a university applicant, and to be more accepting of the qualifications and experience that young people from

working-class backgrounds might offer. The Higher Education Act (2004) allowed universities to raise undergraduate tuition fees (which had been introduced in 1998 at £1000 per year) to £3000, provided they submitted an Access agreement to the new Office of Fair Access (OFFA). This set out the ways in which they would promote and safeguard access for students from low income groups. This made some vocational qualifications, particularly the BTEC National Diploma, far more attractive to universities: 98% of BTEC ND students were studying in the FE sector, they tended to come from low income groups, and often lived in low participation neighbourhoods (HEFCE, 2007). Increasingly, university prospectuses began to state both A level and BTEC grades as course entry requirements, provided a visible route to higher education for vocational students.

Underpinning this were a range of activities that demonstrate the applicability of Bronfenbrenner's model to the concept of university progression, as the macrosystem-driven WP initiatives of New Labour began to reach into the micro-, meso- and exosystems. These initiatives culminated in Aimhigher, a national scheme that linked schools, colleges and universities through a network of staff. Individual projects and activities frequently involved the establishment of direct links between universities and working-class families. For example, a university-based project for Asian heritage parents (Houghton and Sharples, 2001) and a residential family learning project (Richardson, 2010), were typical of many schemes that gave working-class families a reach into the 'circles of power' that Bronfenbrenner had identified as rarely accessible to them. Thus, the macrosystem (particularly the establishment of OFFA) affected a change in the exosystem (the universities) that facilitated upward transition from the micro- and meso systems (families and schools). These interventions could be viewed as examples of Bronfenbrenner's 'historical events' and they created progression opportunities for a generation of young people who may not otherwise have envisaged university as an option. However, they would not have rivalled the immersive, lifetime preparation for university often undertaken by advantaged families. The older the young person when university first becomes an option, the less time they have to prepare (see Figure 1.2 *overleaf*).

Figure 1.2 WP agenda and timing of decision to apply for university.

From birth			
Typically associated with advantaged backgrounds and graduate parents.	**At primary school (5-11 yrs)**		
	Some WP activities in low participation areas aimed at primary pupils.	**At secondary school (11-16 yrs)**	
		Aimhigher, Connexions and OFFA-related WP activity in many schools.	**At 16+**
			Adding BTEC to the UCAS tariff made university accessible without A level.
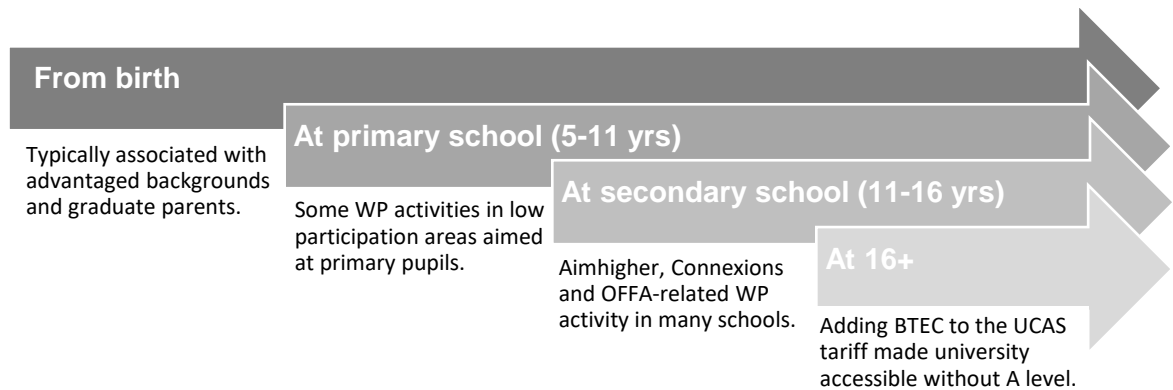
A young person becoming aware of university at secondary school or later, would have limited time to build a profile for the UCAS personal statement, and may already have made academic choices that rule out certain courses or universities. However, New Labour's WP agenda had shaped the school environment in which the state sector students in this research had been educated and, particularly for the BTEC students, had done much to create an environment in which university was a real possibility.

1.6 Summary.

This chapter has shown that disparity in progression to university between different types of student has a long history and is rooted in a range of social factors and personal expectations that influence outcomes from birth. Ever since the wealthy classes decided that a university education for younger sons was a good idea, they have ensured that the ecosystems of home, school and university are congruent, are bridged by smooth transitions, and are closely aligned to the macrosystem of policies and agencies that govern higher education and influence who can access it. As the university-sector has grown, elitism has been preserved by a hierarchical system that results in young people from advantaged homes attending a relatively small number of prestigious universities. Students from less-advantaged homes predominantly enter less-prestigious universities, particularly those close to home.

Chapter 2: Sources of information, advice and guidance for students.

Introduction.

This chapter focusses on the sources of information, advice and guidance (IAG) available to prospective university students via the macro- exo- and mesosystems. It begins with the politically driven macrosystem that has determined the historical development of state sector IAG provision and has encouraged the monopoly that is UCAS. It then considers the market-aware exosystem of the university sector's student recruitment activities. It then turns to the mesosystem of the school or college IAG programmes that support university applicants.

The chapter contrasts the well-resourced, continuously developed IAG programmes that support university entrants in independent schools, with a state sector that has been affected by a pendulum of political influences as different types of student have been prioritised and where adequate IAG provision for university entrants has never been an entitlement. It shows how this 'two-tier' approach serves to consolidate the consonance with the mechanisms of university admission procedures already experienced by middle-class families, whilst doing nothing to remove the dissonance that separates most working-class families from the prestigious universities that they may be qualified to attend.

2.1 Information, advice and guidance services for young people.

2.1 (i) The rise and fall of a state careers service.

During the first half of the 20th century, a network of public and private Juvenile Employment Offices and Bureaux helped some young people into employment (Peck, 2004) but when the 1944 Education Act brought secondary education to all young people, there was a need to ensure that higher levels of attainment were not wasted. In 1948, the Employment and Training Act created a national Youth Employment Service (YES) with a basic entitlement for every school leaver of one talk and an interview in school, followed by job-placing and follow up interviews (Peck, 2004). The importance of providing individual advice and guidance, not just generic information, was therefore present at the very start of the service and, whilst the primary focus was on assisting young people to enter the job market, YES staff became increasingly involved in sixth form activities; a report of YES activity for 1962-65 (National Youth Employment Council, 1965) noted an increasing trend for pupils to stay on voluntarily for post-compulsory schooling with a view to increasing their career prospects. The next three-year YES report (NYEC, 1968) found much progress in working with these young

people, though concern was expressed that too many were embarking on higher education courses "in a state of confusion with regard to their vocational and other objectives" (NYEC, 1968, 93, p 21). Higher education applicants themselves, however, appeared to be most concerned with simply getting a place. Fogelman (1972) found some were complaining that neither their school staff nor the YES had the knowledge to provide adequate advice about the choice of degrees, universities and colleges. Echoing these concerns, the Expenditure Committee (1973) concluded that 'bright young people need at least as much help as the person who leaves school at 15 or 16' and recommended that a national service of advice and information on higher education and employment should be set up to meet this need (Expenditure Committee, 4th Report, Session 1972-73, p xv, 23).

The links being established between the YES and schools were consolidated in The Employment and Training Act (1973) which gave all LEAs a statutory responsibility to provide a careers guidance service, inspected by the Department of Education. For prospective university entrants, the Act provided some stability for the next twenty years: every student had access to some form of professional IAG through their school or college. Most could also access local, high street careers offices which, whilst primarily of use to job seekers, often stocked university prospectuses and had staff who could offer some advice on university options (Rogers,1984; Millen, 2016). Many partnership models developed during this period, with some LEAs basing Careers Officers in schools and encouraging joint planning and innovations, and others offering centralised services to help schools develop their own guidance activities so that officers could concentrate on deeper guidance with students who required this (Killeen and Van Dyke, 1991). Many schools responded to the partnership model by appointing staff with the title Careers Adviser to work in conjunction with LEA staff, and Stoney and Scott (1984) found that school teachers who took on the role of 'careers adviser' often did so believing this would enhance their CV. However, they also found that equivalent staff in *colleges* felt their role was peripheral and of low status. Careers service provision could vary considerably between schools and in different LEAs. Rogers (1984), in a handbook advising teachers how to get the most from what was available to them in their area, warned that there was "no careers service as such, but rather a number of careers services" (p60). Provision for prospective university entrants was sometimes limited and, despite the concerns voiced by the Expenditure Committee almost a decade earlier, the assumption that able pupils progressing to higher education needed little help whilst at school often continued (Department of Employment,1980a; Barnes, 1995). When the DfE issued revised guidance for LEAs that listed 'academically able pupils' as an operational specialisation for which careers

staff would need knowledge of university courses as well as professional requirements (Department of Employment, 1980b), some LEAs developed a specialist role of Higher Education Adviser within the careers service to form a link between sixth forms and universities. However, such provision was by no means universal, and McGrath (1996) found that even within the same LEA area, some schools had frequent and 'essential' contact with the HE Adviser but the majority said contact was 'minimal'.

The Trade Union Reform and Employment Rights Act (1993) marked a significant shift in policy influenced by the 'New Right' ideology of Thatcherism (Watts, 1991). Careers services were now to be privatised, with independent companies invited to tender for the provision of services. The new service was to be more target driven than previously, would work with young people aged 11 to 18, and must "work with teachers as never before" (Widdecombe, 1994). By 1996, careers companies had been set up across England and, although there were some new private providers, many involved collaborations or partnerships that retained the former staff and expertise of the LEAs. The first government report on the new service (DfEE, 1996) and the Dearing Report (1996) both reflected a positive view of the role that the careers companies could have in delivering expanded services. For example, a proposed post-qualification UCAS application system (PQA) would have required an IAG service for students who had already left school or college, though the PQA proposal was not implemented.

The election of a Labour government in 1997 resulted in very different plans, with early indications that Blair's 'New Labour' era would focus resources on young people perceived to be in danger of being neither in employment nor education once they reached the statutory school leaving age (referred to as 'NEETs': Not in Employment, Education or Training). Between 1997 and 2001, the emphasis for the new careers companies was shifted towards those young people at risk of becoming 'NEET', thereby breaking the concept of universal entitlement that had been present since 1973 (Watts, 2001), and resulting in the reduction of services for mainstream students. This gap could not simply be filled by schools, which already varied widely in their commitment to careers work in a way that Ofsted (1998, p17) found unacceptable. The loss of provision for prospective university applicants quickly became evident. Foskett and Hemsley-Brown (2001a) questioned the ability of teachers to provide advice that was accurate and reliable, partly due to their limited knowledge, but also because they often faced pressure to act in the best interests of the school. In 2001, this shift in emphasis for the careers services was consolidated with the closure of the careers companies and the establishment of Connexions partnerships. This marked a fundamental change in the focus and purpose of IAG provision. The Connexions

partnerships were staffed by personal advisers, who were drawn from a range of backgrounds, did not necessarily have any careers expertise or qualification, and had a clear mandate to work with young people who might not progress to post-compulsory education or enter the job market (DfEE, 2000). The notion of career guidance being an entitlement for all young people was subordinate to the social inclusion agenda and the previous partnership model between schools and the careers service was lost. The quality and quantity of support for prospective university applicants now appeared to rest on the degree of expertise of school and college staff, and the ability to commit resources to keeping this expertise current.

Loss of careers expertise in relation to high-achieving students rapidly became evident, and the literature suggested a growing awareness that, for the type of student expected to progress to university, careers education and guidance was minimal. Morris (2003) in a survey of school careers and guidance co-ordinators found that 62% of respondents felt Connexions advisers spent insufficient time in their school, with many commenting on the lack of *any* support for high achievers. McGrath and Millen (2003) found that Connexions advisers who had previously worked in the LEA Careers Service often sought to retain their knowledge of the higher education sector (despite seeing very few students likely to ask about it), and expressed concerns that in some schools it was very difficult for *any* student to find HE advice. Foskett (2004) described IAG for young people as being complex, confused and lacking credibility. A national survey (NAO, 2004) found that two-thirds of so-called careers advisers in secondary schools had no relevant qualifications and were not careers specialists. A Teachers Omnibus survey conducted for the Sutton Trust (Ipsos MORI, 2007) found that many teachers were unaware of basic facts about HE application processes. The NAO (2008) said that the variable quality of IAG and lack of one-to-one engagement could lead to young people making unrealistic applications to HE or not applying at all. Hibbert (2010) found that young people were seeking career support from teachers, youth workers, parents, family and friends, but their knowledge of Connexions was limited. The evidence from academic research and government reports seemed to indicate that fifty years of progress in delivering IAG to state-educated students via a professional careers service had all but disappeared. This was the context in which the state sector students who took part in the current research had been educated.

After almost a decade without a statutory careers sLEA ervice, two government reports published in 2009 included recommendations that would have restored the concept of personalised help from an expert as an essential aspect of IAG. The Milburn Report (2009) recommended that Connexions should be replaced with a new professional careers service, and that schools should be inspected on their delivery of

IAG as part of the Ofsted framework. A national strategy for IAG (*Quality, Choice and Aspiration*, Department for Children, Schools and Families, 2009) noted the potential for interactive technology such as social networking, web-chat and on-line video to provide additional personalised delivery of IAG. Neither of these reports had indicated the need for specific, expert help with UCAS applications, though the proposal that IAG should now be inspected might have had a strong impact on delivery. None of the recommendations in these reports were implemented, however, before New Labour left office in May 2010.

The new Conservative/LibDem Coalition government rapidly announced the closure of Connexions and Aimhigher, followed by the announcement of a new National Careers Service. This was initially well-received (e.g. Watts, 2011), until it became apparent that provision for young people was to be only by telephone or on-line. Face-to-face delivery of IAG became the responsibility of schools, who were expected to meet the careers needs of their students. This was not successful, with Ofsted (2013) rating IAG provision as 'inadequate' in the majority of schools they visited.

Over a period of sixty years, a recurrent theme in the literature is of a service that has been politically determined, and has lacked continuity. In the context of this thesis, it should be noted that the student participants had been schooled entirely during the New Labour era. Generic higher education awareness and aspiration raising activities were prioritised above the specialist IAG needs of young people choosing universities and making applications. During the fieldwork visits, the three state sector fieldwork centres all had Connexions or Aimhigher funded staff who were under notice of redundancy. These staff did not necessarily work with UCAS applicants directly, but their departure depleted the staff IAG resource for the school or college.

2.1 (ii) The rise and rise of an independent careers service.

Whilst the closure of the careers companies in 2001 marked the start of a period in which support for university applicants in the state sector was reduced or removed, there was no such effect in the independent sector. Independent schools have a long, continuous history of well-resourced careers education and guidance, that has never been subject to political and ideological change. In the 1920s, the Head Masters of several public schools had set up appointments services to assist boys seeking to enter employment (Peck, 2004) and during the 1930s and 1940s several organisations developed to fill a growing need. The Careers Advisory Bureau was a commercial organisation with services that included careers interviews at member schools, whilst the Public Schools Careers Association charged its member schools

one guinea per year for a regular bulletin and invitations to events and conferences offering discussion on careers. This early careers provision, in keeping with the pattern of the independent schools themselves, was initially only for boys, but a Women's Employment Federation set up in 1933 offered similar services to girls' schools (Hicks, 2000).

In 1942, the incorporation of the Public Schools Employment Board as a company limited by guarantee marked the start of an unbroken careers service for independent schools. Renamed as the Public Schools Appointments Board in 1950, it rapidly developed a national structure and staffing with regional offices providing placements, courses and training schemes. By the mid-1960s, 90% of eligible schools (i.e. those that formed the Headmasters' Conference) had joined the Board. In 1971, a special resolution of the Annual General Meeting agreed to change the Articles of Association in order to replace 'qualified schools' with schools the Council 'thinks fit' to be a member. This paved the way for an expansion of the service across the independent sector and in 1973, following further relaxation of the membership rules and a second name change (to the Independent Schools Careers Organisation, ISCO) the service was made available to independent, voluntary and direct grant schools. By 1980, ISCO was offering individual tests and profiling to thousands of students within its 261 member schools, and sending a careers Bulletin to around 20,000 parents. In 1993, the Women's Employment Federation, after sixty years of operation with girls' schools, merged with ISCO (Hicks, 2000).

ISCO has become one of the best-known providers of independent careers services and now has a global presence: the websites of many independent sixth forms refer directly to ISCO membership as an assurance of their commitment to offer the best possible progression opportunities for their students. The range of services offered by ISCO is comprehensive, including training for school and college staff, rapid response to queries about any aspect of careers and higher education, diagnostic tests for students, access to a wide range of events, and services for parents (ISCO, 2015). Membership of ISCO effectively ensures that a school has professional expertise on higher education and related career opportunities at the end of a phone line. Whilst ISCO does not publish a list of member schools, Walford (2006) claimed that most of the major public schools are now members of ISCO, with careers guidance forming a major part of school life (and indeed beyond, since ISCO provides a continuing service from the age of 15 until the young person reaches their 23rd birthday).

The Sutton Trust (2007) commented on the advantage conveyed by the tailored preparation and guidance for university applicants commonly found in the independent sector, including individual help with picking the right subject choices and assistance

with drafting personal statements and preparing for interviews. In contrast, McCrone et al (2009) found that in a survey of 1208 state-school careers coordinators, 59% had four hours or less per week to manage careers and IAG for their entire school, with some having as little as two hours for the task. The Silver report (2010) described an example of good practice in an independent school where the Head of Careers was given 1/3 remission from teaching duties and was supported by a Deputy Head of Careers, a full-time Careers Administrator and a Work Experience Assistant (Silver, 2010, p31). The Silver report also cited McCrone's survey, but did not comment on the huge disparity between the two sectors in the resource available for this work and the likely advantage to independently-educated students.

In a further development of its services, ISCO rebranded as The Inspiring Futures Foundation[3], and launched 'Futurewise'. This is modelled on the provision routinely offered in independent schools, but it offers a direct service to any parent who wishes to buy individual guidance for their child. A current objective of the Inspiring Futures Foundation is to "enhance the charity's capability to grow and develop its services in the state sector" (The Charity Commission, 2017).

Consistent, adequate funding for IAG in the independent sector appears to have been assured because it is viewed as part of the curriculum and therefore is one of the things parents expect to be included in the annual fees. The history of its employment and careers services suggests there has been a single, enduring goal: the progression of its students into top jobs.

2.2 The origins of UCAS and its role in providing information.

UCAS, created in 1993 in response to the ending of the binary divide that had separated universities and polytechnics, is one of the most centralised higher education application systems in the world. The history of centralised admissions in the UK stretches back to the 1930s, when the Training Colleges Clearing House (TCCH) was established to coordinate teacher training applications so that colleges could be confident of filling their places, and students had more opportunity to find vacancies (Kay, 1985). The basic principle was that each student completed just one application form in which they named a restricted number of college preferences, with places being offered and accepted through the TCCH; the system was further improved by the introduction of a summer clearing pool for those not placed in the first round of applications (Association of Teachers in Colleges and Departments of Education,

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[3] ISCO was retained as the working name of the service for independent schools

1958).These are the same basic principles by which the UCAS process operates today, more than eighty years later.

Although introduced to resolve practical issues for the colleges, the TCCH had another benefit: through the Clearing House the Ministry of Education had access to national figures on recruitment and student choices. This demonstrated the huge potential value of centralised admissions for policy makers. The TCCH had formed a model that gradually spread across all forms of higher education, encouraged by government reports that pointed out the benefits for institutions and students. The Kelsall Report (1957) had found that c2,500 university places for 1955 entry were unfilled, despite there being a similar number of non-admitted applicants who held at least the minimum degree entrance requirements. The Crowther Report (1959) expressed concern that the complexity of university admissions procedures was causing unnecessary problems for applicants (who now considerably outnumbered the university places available), and that qualified applicants were being turned away. The expansion of the university sector that followed the Robbins and Anderson reports made the issue of admissions critical, and the Committee of Vice Chancellors and Principals (CVCP) recognised that the existing system would soon reach breaking point (Kay, 1985).

Borrowing from the TCCH model, the universities set up UCCA (Universities Central Council on Admissions) and other providers followed suit: for example, the Polytechnic and Colleges Admission Service (PCAS), the Art and Design Admissions Registry, and the Nursing and Midwifery Admissions Service. In 1993, UCCA and PCAS merged to form UCAS, which has since absorbed the admissions services for teaching, art and nursing. In 2011 (the year the student participants in this thesis entered university), UCAS handled 700,161 undergraduate applicants, applying to 304 institutions (UCAS, 2011). UCAS now produces a large volume of annual statistics that can be used for political and planning purposes by government and other agencies, and its size and scope give it the power to wield huge influence over schools, colleges and prospective students, particularly in relation to the timing of the UCAS cycle: applications open one year ahead of university entry, but the UCAS calendar begins eighteen months before an applicant would start their course (see Table 2.1 *overleaf*).

Table 2.1 Key deadlines in the UCAS application cycle.

Time period in relation to A level or BTEC studies.	Activity.
March to July of year 12.	National programme of UCAS higher education conventions, representing almost all UK universities, and open to group bookings from schools and colleges.
June year 12 and October year 13.	Most university open days take place during these two months, frequently on Wednesdays or Saturdays, requiring careful planning if a student wishes to attend several events.
September to 15 October of year 13.	Main UCAS applications cycle for applicants whose form includes medicine, veterinary science/medicine, dentistry or any course at Cambridge or Oxford.
September to 15 January of year 13.	Main UCAS applications cycle for all other applicants.
Late October to May of year 13.	Universities may call applicants for interview, invite them to an applicant visit day, and will make offers and rejections which are conveyed to the applicant via UCAS.
May of year 13.	UCAS deadline for student decisions on choice of their 'firm' university and 'insurance' university.
July and August of year 13.	Main results periods (July for BTEC, August for A levels and any GCSE re-sits).
From July of year 13 to start of university term.	UCAS Clearing process operates to allow unplaced applicants who now have their results to find a vacancy.

(Source: UCAS Advisers Guide 2010/11.)

The UCAS timeline suggests that a young person who has decided on university by the Spring Term of Year 12 can take full advantage of the UCAS process, but even this may not allow sufficient time, since places at UCAS higher education conventions have to be booked in advance, and some degree of prior preparation is necessary to make sense of a convention where more than 100 universities will be distributing prospectuses and suggesting courses. In schools where progression to higher education is the norm, initial preparation for UCAS may begin as early as years 10 or 11, with serious application planning starting immediately after GCSE. In state schools and colleges sessions on planning the UCAS application are often scheduled for the end of year 12, after students have attended the local UCAS convention. Pugsley (2004) found that schools with strong progression fully appreciated the importance of

working within the UCAS time frame whilst Becket (2002) found that many non-traditional students entering college knew only that higher education was a possible option, leaving much ground to be covered in the six months before the relevant UCAS cycle would commence.

UCAS is a registered charity and has always aimed to provide impartial and authoritative information on study opportunities in higher education (McLaren, 2001). As a charity it is independent of government and autonomous in its operations, but this does not necessarily make it immune from the prevailing beliefs of the macrosystem. When the first centralised admissions for the university sector took place in the 1962-3 applications cycle, the system was devised by the CVCP in order to meet the needs of Oxbridge, the civics and the Red Bricks. The governance of UCCA (and then UCAS) was therefore heavily influenced by the universities, particularly the Russell Group. The current constitution does allow for some representation of students and schools (UCAS, 2017a), but the UCAS system has changed very little. Given this background, it is probable that a middle-class applicant may find a greater degree of consonance with the UCAS process than a working-class student, who may be encountering educational choice for the first time.

The primary purpose of UCAS is managing applications on behalf of the university sector, and its stated activity as a charity is 'the promotion, administration and development of shared applications and admissions services for higher education providers in the UK' (Charity Commission, 2017). However, it is also the comprehensive source of information about university options in the UK, and its current mission is to 'inspire and facilitate progression in education through information and admissions services' (UCAS, 2017b) which implies a direct service to *applicants,* not just providers. Certainly, the range of services for young people goes well beyond simply listing the available courses: the UCAS website, its associated social media channels, its call centre, a range of publications and a nationwide events programme all provide access to information on all aspects of the UCAS process for students, parents and advisers. Paczuska (2002) described UCAS as offering an 'equal rights' approach, enabling maximum awareness of possible options to students, but cautioned that this overlooks the fact that students approach the UCAS task with different levels of understanding of the selectivity and elitism of the higher education sector. An applicant unaware of differences in status and reputation would be unlikely to discover this from the UCAS website.

Although UCAS itself is a charity, its commercial arm, UCAS Media Ltd, is a major advertising platform. UCAS Media claims that 'No-one else offers education providers better access to the verified student market' (UCAS Media, 2017). With

unrivalled access to a huge annual database of prospective students, this is undoubtedly true. Profits from UCAS Media are donated to UCAS, which helps keep down the costs incurred by both students and universities when using the admissions service. From the applicant's perspective, UCAS can seem to convey mixed messages: course information is presented in a standardised way for all universities, but those with a sufficient marketing budget can choose to have full colour adverts on the UCAS site with direct links to their university website, or to send direct messages to individual applicants to help sell their brand messages and, by implication, recruit students. Whilst it is not illegal for UCAS to use their student database for commercial activities, ethical concerns have been raised about the way in which UCAS have carried this out. In 2014, The Guardian newspaper (Ward, 2014) highlighted an issue of such concern that it was investigated by the Independent Commissioner's Office: the UCAS website gave applicants the opportunity to opt out of receiving marketing from commercial companies (a legal requirement), but applicants were warned that choosing this option would mean they would not receive information about career opportunities and education providers or health information, all of which might have been perceived as valuable and therefore an incentive to opt in. The ICO concluded that UCAS had breached both the Data Protection Act and the Privacy and Electronic Communications Regulations, and UCAS agreed to change their registration form and privacy policy in order to come into line with legal requirements (Ward, 2015).

It would appear that for a student to fully appreciate the role and influence of UCAS they may require input from staff who already have this knowledge, once again advantaging independent-sector applicants because of the high priority afforded to professional careers services by their schools. This issue is rarely addressed in the literature and does not yet appear to have been the direct subject of academic research, but could be a contributing factor to differential progression rates.

2.3 The universities: a source of information or a marketing ploy?

As the university sector began to develop and the courses on offer moved beyond the classical syllabus of Oxbridge, the new universities set out in prospectuses the proposed structure and funding of their institution, along with the subjects they would teach. These early documents appear to have been written with the intention of attracting subscribers, rather than as a source of information for potential students. The University of London prospectus produced in 1826 was a three-page document setting out the reasons why the city should have a university, the returns for subscribers and the curriculum to be followed (Harte and North, 1991). As the sector grew, so did

recognition of the importance of communicating with potential students: Keele university, opened in 1950, had a prospectus that went beyond the academic, detailing an impressive range of activities, clubs and classes that students were expected to take some part in, and Keele offered Open Days for prospective students in June and September (Kolbert, 2000).

From the 1980s, the growth of the polytechnic sector and associated rise in the number and type of courses offered, increased the need for sixth formers to be well-informed about their options, and higher education institutions began to identify specific staff, usually academics, to act as school liaison contacts. Rogers (1984) described how school careers co-ordinators could assist their students by making use of university Schools Liaison officers. These staff would visit feeder schools, in addition to organising lectures, visits and conferences at the university. Rogers concluded that it was generally accepted that universities, polytechnics and CHEs "offer these services in a spirit of altruism – calculating that they will get their fair share of applicants and that they will tend to be better informed and more highly motivated as a result" (p72). There was no suggestion that marketing or recruitment were the primary purpose of such activities.

By 1990, most universities were providing liaison services free of charge to schools and colleges. In a desire to promote cooperation and sharing of good practice between universities, a group of liaison staff set up the Higher Education Liaison Officers Association (HELOA). The association pioneered free HE fairs for prospective students (taken over by UCAS in 1995) and offered regular events and regional meetings for education liaison staff. Over the next two decades as the higher education sector expanded and became increasingly competitive, the nature of education liaison work also changed. School Liaison Officers drawn from the academic staff were replaced with full-time, 'professional' liaison personnel, who began to form the core of most university liaison teams, with academic staff providing 'casual' subject-based support. When the Careers Service was disbanded in favour of Connexions, university education liaison teams became a crucial part of IAG provision for UCAS applicants in many state schools. Through outreach work and university visits they replaced many aspects of the role that was previously held by careers specialists, but there were two key differences: there was no expectation that they would have training or qualifications in careers work, and they were not impartial in the way that local authority or careers company employees could be. HELOA has responded to changes in the sector and expanded beyond its original target group. It now provides training and development opportunities for staff working in marketing, recruitment and admissions roles across the HE-sector (HELOA, 2015).

Alongside this, many universities began expanding the work of their 'prospectus teams' to include additional ways of communicating with prospective students, such as mailshots and websites. In 1987, a second practitioner-led organisation emerged to support this new group of staff: the Higher Education Information Services Trust (HEIST). Based at Leeds Polytechnic, which had just appointed the first Head of Marketing at a UK higher education institution, HEIST appeared to fill a need in the sector. Throughout the 1990s it supported staff in higher and further education, offering training, delivering and funding research and publishing books and reports. At the start of the decade, few universities had marketing departments and many functions were carried out by academic staff. By the end of the century, professional marketeers had been appointed across much of the sector, bringing commercial expertise and approaches into the universities.

The value of this approach was not universally agreed. Stamp (2001) contrasted the traditional images of universities based on anecdote, illustrious alumni and public success, with the modern approach of 'brands' based on differentiation, consumer awareness, and considerable financial investment, whilst Bay and Daniel (2001) cautioned that the student is not a 'customer' and urged a collaborative partnership mode. However, the resources devoted to the marketing of universities have steadily risen as the resources publicly available for IAG have gone down. Stamp (2006) surveyed university marketing departments and found that annual budgets were often substantial, with 20% of respondents spending between £500k and £1m, 13% spending more than £1m per year on marketing, and 65% saying their marketing budget had increased over the past three years, typically by 11-20%. As a comparison, the amount spent on widening participation outreach activities across the university sector during the same period was just £21m (National Audit Office, 2008). A further confirmation of the importance the sector places on a corporate approach to marketing can be seen in the fortunes of HEIST, which is now part of Havas, a global communications and marketing company. The name still exists, but current-day marketeers know HEIST as a high-profile annual marketing event that rewards universities and colleges for a range of recruitment and marketing 'successes' (Havas Education, 2017).

Concerns that transplanting business marketing frameworks into a higher education environment destroyed the relationship between student and university continued to be expressed (Ramachandran, 2010). Nonetheless, the need for a university to *have* a brand seemed to have been accepted without question and the literature was more concerned with its use and development: for example, Pinar et al (2011), presenting a 'brand ecosystem framework' that could help universities develop

their branding strategy, appeared to assume that every university had already identified their brand.

The techniques and the terminology of corporate marketing are now widely used across the higher education sector. For example, Hemsley-Brown and Oplatka (2010) considered the crucial element in marketing higher education institutions of RM (relationship marketing), which should commence with a commitment to MO (marketing orientation), and suggested that an improved degree of MO would achieve improved levels of RM. Durkin, McKenna and Cummins (2012) described an 'emotionally driven' approach to brand repositioning, that used an animated character in a television advert to create meaningful connections with potential undergraduate students that could positively influence choice.

However, Temple and Shattock (2007) cautioned that branding and reputation are not synonymous, and the latter is of much greater importance for a university. Universities in large UK cities, simply by association, had obvious advantages in the race to develop brand recognition, but this would not compensate for a poor reputation. In a later paper, Temple (2011) pointed out that reputation has to be earned: Oxford's reputation as one of the best universities in the world is not because of its ability to 'hire smarter branding consultants'. From the perspective of a potential student, however, unless they are aware of the mechanisms for ascertaining reputation, such as league tables, it could be argued that a highly visible brand may well be confused with reputation: most university prospectuses and websites claim some degree of excellence. The literature on marketing of higher education refers to the difficulty of producing 'valid, reliable and accessible information about product quality' (Brown, 2011, p20), but also suggests that if students and their families are aware of status, they may well value reputational hierarchy more highly than product quality (Locke, 2011). Brennan and Patel (2011), applying market terminology to prospective students, found that 'shoppers' choosing 'up-market universities' had used league tables to check reputation whilst 'down-market university' students had not, though the latter often spoke positively about the education they were receiving and what it might lead to, without evident awareness of the low ranking of the university. The literature does not appear to directly address the potential ethical dilemma that may be inherent in 'selling' a low-ranked university to a young, vulnerable and often ill-informed customer base.

Most universities would no doubt claim that the function of their liaison teams is to help prospective students make informed decisions, but 'free' services are usually expected to reap some reward, and liaison work may be closely linked with the university's marketing and recruitment activities. It is true that money spent on

marketing could potentially be of benefit to prospective students if it provided accurate, relevant information, but Stamp (2006) had found that the most common measure of marketing performance was simply the number of students recruited. Fuller and Paton (2008) pointed out that providing impartial and unbiased information for young people would inevitably raise awareness of 'rival' universities and courses and therefore may not be compatible with market-driven institutional behaviour. Moogan (2011) suggested that institutions could do more for potential students if they tried to offer the most relevant information to satisfy student information needs, but even this paper concluded that offering tailor made communication strategies could also enable universities to better position themselves within a competitive market.

It seems that the altruistic approach described by Rogers in the 1980s has not survived in today's crowded marketplace; the largely ethical basis on which universities originally contributed to applicant awareness has given way to a competitive and market-driven approach that may create a tension between the interests of the university and the capacity to impartially advise and inform, leaving the applicant to distinguish plain facts from attempts to persuade.

2.4 School and college IAG programmes for university entrants.

In addition to the IAG services that may be available from external sources, every school and college must have some form of internal IAG for university applicants, because each institution has a role in managing the UCAS online application process for their students. The nature of what is offered can vary considerably, from a minimal service in which students are simply given the factual information required to submit an application, through to a curriculum-embedded programme of support for every aspect of university choice. The content of such programmes is largely a matter for individual schools or colleges, and state provision of 16-19 IAG has never been inspected or profiled in a way that would endow it with the institutional importance attached to achieving strong A level results. The availability of external careers and guidance services inevitably has a strong influence on what schools themselves can offer. In the independent sector, therefore, with the stabilising presence of organisations like ISCO, excellent support for university applicants appears to be the norm. In the state sector, where the political climate has both provided, and removed, IAG services for university applicants, schools and colleges have at times struggled to provide support that is merely adequate.

The delivery of school-based IAG activities may, at its best, form an additional curriculum that supports and structures the UCAS process alongside sixth form

studies. Paczuska (2002) described an approach to developing an 'admissions curriculum', citing school and college handbooks that effectively became a one year course of preparation for the UCAS process. However, the amount of work and degree of initiative required by the student could be considerable. Paczuska also cautioned against assuming that all students would derive equal benefit, since what learners learn from any curriculum is influenced by what they already know.

Pugsley (2003) found a heavy emphasis on the process of choosing and applying to universities in independent schools, with one to one guidance provided throughout the two years of the sixth form, supported by a network of contacts involving universities, businesses, professional organisations and former students now at university, resulting in applicants described as 'privileged choosers'. In effect, the IAG provision described by Pugsley appeared to form a two-year curriculum. In contrast, a typical comprehensive school would provide generic advice on the application form at the start of the UCAS cycle, but then expect students to carry out their own research on possible courses and universities. This approach, according to Pugsley, produced 'disconnected players' who, given the huge number of courses and universities to choose between, did not really have adequate time for fully informed decisions, and missed important opportunities because they started the process at a late stage. Pugsley suggested that competency in engaging with the UCAS process might be expected to have significant consequences in terms of outcomes, with a "definite advantage to be gained by pupils who are rigorously tutored through the application process" (Pugsley, 2004, p33).

Smyth and Banks (2012) compared guidance provision for final year students in a fee-paying, middle-class school, with that in a school where the intake was working-class and, although academic achievement was good for the type of school, progression to university did not seem to be expected. Smyth and Banks found a very structured approach to guidance in the middle-class school, with a one-to-one guidance interview in the first term followed by weekly guidance classes and opportunities to visit universities. This included an 'elite' university with which the school had a direct link and where the social networks of the guidance staff had enabled a special open day to be tailored to the needs and preferences of the students. In the working-class school, the need for information was great because familial knowledge of higher education options was low. A less-structured approach, however, resulted in the students attending few guidance sessions, and typically just one open day. Consequently, they had significant knowledge gaps in relation to the difference between college and university and the types of course they might apply for. Smyth and Banks noted that whilst the independent school assumed a seamless transition to

higher education, the working-class students sometimes appeared to have higher aspirations than their staff seemed able to support.

Where a teacher or tutor has personal experience of attending a prestigious university there may be considerable benefit to students. Ridley et al (2005) surveying how teachers prepared Oxbridge applicants, found that comprehensive schools were least likely to have had a visit from an Oxford or Cambridge representative, least likely to advise students on choosing a college and were the most likely to think (incorrectly) that Oxbridge would be more expensive than other universities, suggesting limited personal experience and lack of connections with universities or agencies able to compensate for this. Greenbank (2006) found that old, established universities were often willing to be flexible where there was a low demand for a course, meaning that some applicants might obtain an offer below the stated entry requirements, but noted that a strong informational network would be required for a school to know this and to benefit from it. Oliver and Kettley (2010) described how an Oxbridge Mentor in a sixth form college confirmed the importance of resources: her previous posts had all been in top independent schools, and she commented on the lack of advantages for gifted students in her college compared with independent schools, where 'every help' was given to potential Oxbridge entrants.

The potential importance of activities beyond the academic also appears to be well understood by the independent sector. The quality of the UCAS personal statement, which allows the candidate to convince an admissions tutor (in only 4,000 characters) why they should be offered a place on the course, can be crucial in determining the success of an application. Independent schools typically devote considerable time and resource to supporting this activity. Riddell (2007) found that the timetabling of 'period after period on completing the UCAS form' was common practice, and that schools often concentrated effort on how best to *present* achievements. An assumption that their students already had achievements worthy of presenting would be understandable, since independent school prospectuses often describe sport, music and the arts as 'co-curricular' (rather than extra-curricular), and the sector publicizes its success in this regard: for example, half of the UK's medals at the 2012 Olympics were won by former students of the prestigious Headmasters' and Headmistresses' Conference Schools (HMC, 2015).

There is evidence that this investment of time may achieve the desired results. Jones (2013) analysed the content of personal statements from private and state sector applicants with equivalent A level results and found that independent school applicants produced statements that were more carefully written, more academically appropriate and contained more relevant activities, which were often of high status. In

terms of outcome, whilst 70% of the independent applicants were accepted at a high rank university, only 50% of those from state schools and colleges achieved this. Jones concluded that the personal statement does not level the applications playing field, but rather tilts it further in the direction of those who are already advantaged. In a later paper, Jones (2016) reported on the successful introduction of an Academic Apprenticeship project that had a positive impact on personal statement writing. Project group students were more successful than a control group in gaining offers from Russell Group universities. However, when the two sets of statements were read by *teachers*, many could not distinguish between them. Jones concluded that the IAG some students receive at school may not reflect the content or style expected by Admissions Tutors in prestigious universities.

Shuker (2014) interviewed UCAS applicants to investigate self-marketing practices in the production of personal statements, and found that the school could play a crucial role in the orientation to this task. For example, independent school students often had an integrated and prospective approach, in which they considered all aspects of their life as potential material and had deliberately chosen activities that would be valuable when the time arrived to complete the UCAS application. College-based, vocational students were the most likely to be retrospective, looking at past activities to see how they might be shaped as suitable selling points for the personal statement. Shuker proposed that the resources and support offered by the school or college contributed to these patterns of orientation, and warned of the risk that might face students following a route that was not typical of their cohort. A vocational student who did *not* follow the expected vocational progression route might be ill-prepared to project an ideal image to an admissions tutor expecting A levels in relevant subjects.

Overall, the evidence appears to reinforce the view that the UCAS process is a culmination of eighteen years of educational experience, in which the most advantaged have spent many years preparing for university entry, whilst the least advantaged may have engaged with the task for only a few months.

2.5 Summary.

This chapter has shown that the independent sector has continuously developed its IAG in accordance with the changing needs of students and the demands of the world around them. In contrast with this, state sector provision of IAG has experienced turbulence and discontinuity as it reflected the prevailing policy of different governments. This has left many state schools dependent, for some of their IAG services, on a university sector that has moved from a largely altruistic, informational

approach delivered by academic staff, to a model based on market-driven imperatives, making it harder for less well-informed applicants to judge what is on offer. Those young people whose family background is already favourable to university progression are therefore most likely to have access to professional expertise. They receive IAG that is consonant with the mechanisms of UCAS and the dominant ideologies of status and reputation in the microsystem. This enables smooth transitions between the ecologies of home and school and the university sector.

This suggests that being middle-class may not, of itself, be the determining factor in applying to prestigious universities. Provision of expert, university-focussed IAG in all schools and colleges might have the potential to produce well-informed university applicants equipped to make decisions commensurate with their needs, interests and predicted grades. The current literature rarely acknowledges the considerable disparity in IAG provision and the impact this may have on progression.

Chapter 3: The complexity of UCAS decision making.

Introduction.

Whatever the environmental background or lifetime opportunities a young person has experienced, all prospective university students are eventually faced with the completion of a UCAS form. This chapter focuses on the decision making process, starting with the acquisition of knowledge about universities and courses. It considers how the internet created a dramatic change in the knowledge environment, making it possible for a student to carry out all of their research without recourse to the teachers, tutors and specialist careers staff who had previously occupied a pivotal role in the provision of information about universities. This potentially leaves prospective students to navigate their own path, through a plethora of online information that is confusing and sometimes misleading. The chapter then turns to the UCAS website, the most comprehensive and independent source, and explores its capacity to support informed decisions.

The chapter then focusses on the strategies a young person might employ when faced with a task of such complexity that a truly rational, optimal outcome would be beyond the limits of human capacity. Simon's Behavioural Model of human decision making is proposed as a theory that may be particularly applicable to understanding how young people select just five university courses from thousands of options.

The chapter ends by linking both Simon and Bronfenbrenner, showing how a synthesis of their approaches may be pertinent to understanding university choice in a way that acknowledges the role of both environmental influences and personal agency.

3.1 Learning about higher education: from guided study to Google.

Studies that have explored what applicants know about higher education appear to have followed a pattern of alignment to key features of the political era in which the research took place. During the 1970s and 1980s, a period characterised by strong links between schools and local authority careers services, there seemed to be an implicit assumption that university applicants would seek information from teachers and careers staff, who had a responsibility to provide it. A literature review of this period shows a concern to determine how best to structure IAG provision within sixth forms and colleges so that students could make informed decisions about higher education (Webster, 1974; Watts, 1977; Watkins, 1982; Stoney and Scott, 1984). The literature suggests that every school or college preparing university applicants had a physical resource, such as a Careers Room or Library, which held the current

university prospectuses and generic publications from the Clearing Houses (such as UCCA, and PCAS). This was often supplemented by materials from a growing range of independent publications that enabled comparison of courses, subjects, entry requirements and career options (Rogers, 1984; Lambert, 1988). Whilst the amount of information was limited compared to the present day, students had ready access to a standard set of texts that were annually updated and relatively free of marketing hype. Literature of the period also included publications specifically aimed at assisting sixth form tutors and careers advisers to structure their IAG sessions, including fact and activity sheets designed to enable informed choices to be made (Ball and Ball, 1986). This confirmed the expectation that schools and colleges would both provide the information source and teach their students how to use it.

During the 1990s, research with applicants confirmed the continued dominance of prospectuses and the UCAS Directory, which consistently featured as the most commonly used sources of information and the most useful. These were usually followed in importance by open days, school and college careers rooms (now enhanced by the addition of CD ROMs and videos) and Higher Education Fairs (Keen and Higgins,1992; McGrath, 1996). Towards the end of this period, informal sources of advice, such as parents and friends, were sometimes cited by students as the most influential *people* as sources of information. This coincided with the privatisation of local authority careers services, which had weakened some of the links between schools and professional careers staff. By the late 1990s, a decline in the use of CD ROMs and video sources appeared to be explained by a very rapid increase in use of the Internet. Roberts and Allen (1997) found little use of the internet, but Connor et al (1999) found that 28% had used it. The development of university websites and the growing number of students who could access them created a dramatic change in the knowledge environment. Previously, students searched for universities by using resources that had been 'vetted' for authenticity and veracity by staff in charge of the school or college careers room. Now they were free to find and choose universities on the basis of whatever information they found on-line, which left the student to discriminate, unadvised, between 'information' and 'hype'.

Initially, however, most students did not have ready access. Moogan, Baron and Harris (1999), in a study of prospective university students, found that on-line information was accessible via just one computer in the school library. The students therefore found it easier to use hard copy material, with the UCAS directory a frequent starting point for their search for universities, followed by university prospectuses. Home access would also have been limited: UK household internet access was 9% in 1998 and 13% in 1999 (Statista, 2017). The 28% internet usage that was found by

Connor et al in 1999 was therefore relatively high, but it was still one of the least used of all sources in the study. Those who *had* used websites to find out about universities gave them a relatively low rating for usefulness, because much of the information was simply a replication of the prospectus or was intended for current, rather than prospective, students.

Increases in the quantity and type of information about higher education during the 1990s did not necessarily produce applicants who were better informed. Roberts and Allen (1997) found that many young people had only a superficial knowledge of higher education. Differences related to social class and school type were sometimes noted. Connor et al (1999) found that students from independent schools and selective state schools had used more sources of information about universities than those in comprehensive schools and colleges, particularly in relation to quality assessment of institutions. Connor and Dewson (2001) found that even current university students from working-class backgrounds felt they still had knowledge gaps. Moogan and Baron (2003) found students at a boys' independent boarding school were the most likely to have made an early decision to apply to university and had spent the longest time searching for information.

The New Labour inclusion agenda, which had replaced careers companies with Connexions, and introduced a series of widening participation initiatives, has sometimes been described as having contributed to a deficit model that attributed blame to those who had not progressed to university (Alexiadou, 2002; Thompson 2006). The research literature appeared to reflect this, with studies often focusing on lack of knowledge in general amongst young people from working-class backgrounds. Hutchings (2003) found that in focus groups with young people who had *not* progressed to university there was often a lack of understanding of very basic distinctions, such as the difference between a further education college and a university, or between a degree and a Higher National Diploma (HND). Amongst those who *had* progressed to university, the value of a degree was often described in a way that suggested the removal of working-class deficits rather than the achievement of a qualification that would deliver specific skills or knowledge.

However, Hutchings also suggested that simply providing prospective students with more information about higher education might not increase participation, since information is not neutral, but is selected and interpreted in a way that fits with the user's perspective. Working-class participants demonstrated a preference for knowledge gained from people they knew, rather than knowledge obtained from official sources. Tate, Hatt and Baxter (2005) found that widening participation cohort students were aware that they lacked information, but did not have sufficient knowledge of

higher education to formulate coherent questions or identify their areas of ignorance. Thus they were often unclear about their information needs. When participants did begin to access information, some noted that there was far too much to read, and a lack of opportunity for face-to-face contact that would explain things and enable them to ask questions. This echoed the preference for 'unofficial' information noted by Hutchings. Poor understanding of progression opportunities was sometimes shown to have implications beyond the choice of a course. Forsyth and Furlong (2003) found that many disadvantaged young people were drawn towards courses (particularly at post-92 universities) with titles that appeared to be vocational (e.g. tourism, media, information technology), mistakenly believing that such courses were similar to apprenticeships, and would lead to a job and financial security.

The New Labour widening participation initiatives were taking place alongside a rapid increase in use of the Internet by young people: household access rose from 30% in 2000 to 73% in 2010 (Statista, 2017). Computer rooms in secondary schools became almost universal and, in theory, young people could now be expected to search independently for information on courses and universities that would previously have been delivered via their school or college. However, any assumption that access to digital resources would necessarily correlate with digital *literacy* would appear to have been mistaken. Williams & Rowlands (2007) in a review of literature on information seeking behaviour of young people, observed that many did not consider 'authority of source' when evaluating websites, and tended to stop searching when they found something that appeared to match what they were looking for. Green and Hannon (2007) also noted that young people had a tendency to uncritically accept the top results from a Google search. Hargittai and Hinnart (2008) expanded on this and found that whilst recreational use of the internet was commonplace amongst young people, engaging in capital-enhancing activities that could potentially influence their upward mobility (such as job hunting) was less common. The less education that a participant had, the less likely they were to use capital-enhancing sites, suggesting that social inequalities may be perpetuated online. Eynon (2009) added a note of caution, by finding that even when young people had high levels of *confidence* in their ability to use technology, this was not the same as *competence.* The study concluded that appropriate support from teachers was often needed. Smith (2011) builds on this by noting that prospective university students from low socio-economic areas sometimes referred directly to the need for help with understanding official knowledge, such as university websites, citing teachers or a sibling already at university as a 'decoder'.

Prensky (2001) described young people as 'digital natives', asserting that they 'think and process information fundamentally differently to older people' (p1), whom he

described as 'digital immigrants'. However, Helsper and Eynon (2010) argued that this was misleading, and proposed instead a continuum of engagement dependent on experience and usage, not just age. Eynon and Malmberg (2011) confirmed a finding of significant diversity amongst young people in their use of the internet, with those who had less internet access perceiving themselves as less skilled in using it. A key factor often noted in these studies was the importance of autonomous access to high-speed internet connections in developing digital literacy, something that would tend to be linked with socially advantaged backgrounds.

However, even if all young people were skilled and literate internet users with access to high speed connections, concerns would remain about the quality of information they may find in relation to higher education. The National Student Forum's first annual report focussed on IAG (NSF, 2008) and found that whilst there was an abundance of online information, there was no framework that could enable a student to make effective use of the material. The Forum found that with no single portal for information about higher education and little control over the quality of content and interaction, information gleaned from social networks, message boards, videoblogging, etc. may be highly subjective, confusing or misleading. Material provided by universities was not immune from this, and the report called for best practice guidelines on pre-entry information. In their third and final annual report, the NSF returned to the topic of IAG, emphasising the need for:

> "Increased visibility of the information on UCAS and Unistats, and improved advice about how to interpret the information on UCAS and Unistats e.g. better links from UCAS to the Unistats website to raise the latter's profile and advice about which site provides what information"
> (National Student Forum Annual Report, 2010, p15.)

However, the NSF did not appear to think that online information alone could provide the necessary IAG for applicants to make informed university choices, since the 2010 report also called for all schools and colleges to have access to a dedicated Higher Education Adviser, and for 'more structured and stringent quality assurance monitoring for IAG in schools' (p15).

3.2 Making the application: the UCAS website.

In theory, the comprehensive, independent nature of the UCAS website could mean it is sufficient to support informed decision making in the absence of other sources of knowledge. The 'Getting Started' section of the site contains generic information about higher education and choosing universities, with sections for both students and parents, and is supported by a video wall, student blogs, a newsletter and

information about open days and other events. UCAS was an early adopter of social media, with a presence on Facebook and Twitter. In 2007, UCAS introduced its own social media platform, yougofurther, to encourage and facilitate online interaction between students (Emerson, 2010). All of this could provide valuable underpinning knowledge about higher education.

Once a student has decided to apply, they are faced with the task of choosing no more than five courses from more than 30,000 possibilities at over 300 institutions. A fully informed decision, in which the applicant considered all possible options in order to find the most suitable courses and universities, would seem to be beyond the mental processing capacity of even the most able student and, in reality, UCAS decisions are probably based on a limited sub-section of what is on offer. The UCAS website Course Search facility enables applicants to tailor their search by filtering against three initial criteria: degree subject; name of institution; location. It then offers a further choice of degree type and mode of study. This appears to offer a valid way of ensuring that every possible option within a subject is available to an applicant when they first begin to look for a course, but the search process is complex, confusing, and time consuming, and the results are sometimes incomplete.

As an example, a search using the filter 'history' (UCAS Course Search on 5/07/2016) brought up 131 providers and hundreds of possible courses, including history of art, European history, mediaeval history, archaeology, fashion and dress history, war and conflict and many other titles that had some history content. Using the second stage filter, it was possible to reduce these numbers a little by selecting single subject history courses (which brought up 117 providers) or reduce the numbers more dramatically by selecting courses that offered history with one or more other subjects. The available filters are: joint; combined; major with a minor; major with more than one minor; triple subjects. This level of definition may be challenging for many applicants. Adding a location to the first stage filter (by country, county, city or town) dramatically reduced the number of options but, for many prospective students, these search filters would not be helpful. For example, to find history courses offered in the northwest of England would require an applicant to know that they should search for Cumbria, Lancashire, Greater Manchester, Merseyside and, depending on their definition of 'northwest', Cheshire, parts of West and North Yorkshire and parts of Derbyshire. Entering the term 'northwest' into the location filter did not return anything meaningful.

A further complication is that the result of UCAS searches may not always include every option. As an example, Manchester Metropolitan University offers sport courses at their Cheshire campus, but none of these appeared in a search using the filter Cheshire, neither did they appear when using the filter Manchester. The only way

of finding these courses was by filtering for Sport *and* Manchester Metropolitan University, a search combination most likely to be used if seeking to confirm a degree of existing knowledge, rather than to find possibilities. This type of search problem seems to be due to the way in which individual institutions present their data to UCAS, because searching for sport courses in Manchester *did* bring up Buckinghamshire New University, showing five courses delivered at the Etihad stadium, the home ground of Manchester City football club (UCAS course search on 5/07/2016). If Course Search was the only source of knowledge available to an applicant, some suitable options might be missed.

Another source of potential complexity for the applicant is that because UCAS holds the definitive information set for all providers of degree level study, the search results may include all types of university, colleges of further and higher education, specialist colleges such as agriculture or drama, and private colleges. Discovering the differences between these various types of institution could be done by leaving the UCAS site and checking the individual websites, but this would be time consuming. It might also require some degree of prior understanding of reputation: most institutions describe their 'excellence' in one form or another. Using the generic search mechanism on the site for terms such as 'status' or 'reputation' does not produce information that would indicate the differences between institutions. Even the term 'Russell Group' (which could only be used as a search term by an applicant with some awareness of the UK hierarchy) generated only four returns: two were mentions in student blogs, one was a reference to a UCAS Board Member, one was a referral to a classroom resource for teachers (UCAS Course Search on 6/07/16). For an applicant with limited prior knowledge of higher education, the site would not demonstrate the considerable disparity between institutions in status and reputation.

The UCAS website does have a mechanism for comparing courses at different institutions across a range of variables, via direct links from UCAS course level information to the Unistats[4] data for that course on the direct.gov site. For example, a comparison of History courses (UCAS Course Search on 5/07/2016) showed that six months after graduation, Russell Group universities typically had three-quarters or more of their graduates employed in management or professional roles, whilst at the post-92 universities it was usually less than one-half and could be as low as 15%. At one of the former CHEs only 5% of graduates were employed in professional or managerial roles. The same search produced a range of average annual salaries that

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[4] This is the data that the National Student Forum (2010) had said should be more visible, with improved advice for students on how to interpret the information.

varied from £13,000 at a post-92 university to £26,000 at Oxford or Cambridge. These were very different outcomes for the same qualification title, and should alert a student to discrepancy in relative opportunities. However, generating this level of data *before* choosing courses would require considerable effort, as well as an awareness that this comparative data even existed.

One could argue that an even more important prerequisite for conducting this level of course research would be an understanding that becoming a graduate does not, of itself, guarantee an entry route to 'graduate employment'. Research suggests that students from working-class backgrounds may be particularly likely to over-estimate the extent to which a degree will enhance their job prospects. Jerrim (2011) compared data from the UK student Income and Expenditure Survey for 2004-2005 with the HESA Destination of Leavers Survey for 2006, and found a general tendency for final year students to have overestimated their likely salary compared to the salaries actually received by graduates the following year. Overestimation was greater, however, amongst students enrolled in subjects and institutions with higher intakes of lower-achievers and students from lower socio-economic groups. Christie (2009) found that students made assumptions about the importance of higher education for financial success, and lacked awareness of the dangers of an overcrowded graduate labour market. This misunderstanding may be fostered by the consistent trend for graduates of *prestigious* universities to earn a high graduate premium (Chevalier and Conlon, 2003; De Vries, 2014).

The availability of an informed adviser, who recognises the relative value future employers may place on specific degree subjects and certain universities, may be crucial in determining what a student understands about financial prospects. The UCAS site has the information, but an applicant would first need to be aware that a degree does not necessarily confer a financial advantage in the labour market.

3.3 Herbert Simon: A Behavioural Model of Human Decision Making.

The publication of *Models of Man* (Simon, 1957) challenged major elements of the neoclassical view of rationality. Its author, Herbert Simon, was awarded a Nobel Prize for economics in 1978, but his work spanned political science, public administration, management science, organisational theory, psychology and computer science. He has been described as a 'scientist's scientist' who was 'resistant to demands for disciplinary loyalty' (Augier and March, 2004, p4). The unifying factor in his work was his interest and contribution to the study of decision making.

Simon is probably best known for the concept of 'bounded rationality' which emerged from his criticism of neoclassical economics, particularly Subjective Expected Utility theory (SEU), which assumes that humans will make rational decisions they believe will maximise outcome. He felt that theories such as SEU overlooked the limitations imposed by human knowledge and computational capacity, which preclude the consideration of all possible alternatives, requiring us to make decisions that are rational within the limits of what *is* possible. He also rejected the notion that decision making can be explained simply by considering the outcome of tasks, suggesting instead that the *process* of decision making, in which the psychology of the decision-maker is explored, could lead to a greater understanding. Reflecting on the development of his theory over a fifty-year period, Simon presented a concise view of the concept for which he is best known:

> "Bounded rationality is simply the idea that the choices people make are determined not only by some consistent overall goal and the properties of the external world, but also by the knowledge that decision makers do and don't have of the world, their ability or inability to evoke that knowledge when it is relevant, to work out the consequences of their actions, to conjure up possible courses of action, to cope with uncertainty (including uncertainty deriving from the possible responses of other actors), and to adjudicate among their many competing wants. Rationality is bounded because these abilities are severely limited."

(Simon, Mind and Society 1, 2000, Vol 1, p25)

Simon (1983) posited a behavioural alternative to theories of rationality, based on four assertions about real-life decision making: 1) decisions are generally concerned with specific issues deemed important at the time, rather than comprehensive, whole-life matters, 2) decision making is based not on detailed scenarios of how a decision may affect the future, but on general notions of lifestyle and prospects, 3) when making any decision, attention will be diverted towards relevant aspects of life and values, to the neglect of others, and 4) much of the time and effort devoted to the decision making process is spent gathering facts and evoking preferences: the actual choice may take very little time. Simon used examples as varied as buying a car or learning to play a game to illustrate the behavioural approach, describing them as instances of bounded rationality because they made no attempt to consider all possible alternatives, but focused instead on gathering facts and generating *some* alternatives relevant to whatever need or issue was uppermost in an individual's mind at the time. He argued that when faced with a complex decision that offers many choices, human decision makers look for ways to simplify the process. Considering a limited range of options means that a truly optimal solution may not be reached, since some possibilities will not even have been considered. Simon proposed that decision makers, rather than

optimising, are often *satisficing*, choosing 'an alternative that meets or exceeds specified criteria, but that is not guaranteed to be either unique or in any sense the best' (Simon, 1997, p295). The way in which any individual satisfices will be determined by a range of factors, including both internal cognitive limitations and external social constraints.

The four elements of this behavioural model appear to align closely with the task facing UCAS applicants. Firstly, completing the UCAS form is a very specific, intense and time-bound issue that tends to obscure the fact that this is a decision about the whole course of one's future life. Secondly, understanding the detailed scenario that might play out from any UCAS choice would require thorough investigation of employment and salary outcomes for each possible course and university, but applicants may focus instead on generic issues, such as choosing a business degree because they want a career in business. Thirdly, applicants do appear to focus on aspects of life and values that seem particularly relevant to them, resulting in the neglect of others. An example might be a young person whose family values emphasise remaining at home may limit their search for courses to just one or two universities, whilst an applicant placing a heavy value on status may choose the highest ranked universities regardless of other factors. Fourthly, the time and effort spent gathering facts and evoking preferences to make an informed UCAS decision can be considerable because there are thousands of options, but the choice of five courses may then take very little time, because the search process itself has refined an applicant's understanding and, in effect, eliminated many options. Simon's concepts of simplifying and satisficing also appear to offer a convincing explanation of how young people might select just five courses for their UCAS form, since a fully rational choice based on optimising is probably impossible, given the large number of universities and courses in the UCAS system.

Another consideration for Simon was the role of emotion in selecting certain aspects of the environment for our attention (Simon,1983). He distinguished between 'hot reasoning' where a position declaimed with passion will arouse emotion, and 'cold reasoning' which relies on the presentation of facts. The former directs and fixes attention on facts that support the position presented by the hot reasoning, increasing the likelihood of an immediate decision being made. In UCAS terms, a friend who "loves their university" or a parent who says "please stay at home" might trigger a rapid decision with little research. Cold reasoning, which Simon felt was relatively free from intense emotion, makes more use of searching and fact-gathering and is likely to produce a more rational decision. The perceived importance of a decision can also impact on attention and reasoning style. When a decision is thought to have significant

consequences, the decision-maker will direct attention towards a search for fact-based, 'cold' information sources.

A further element of Simon's approach that underlines its suitability as a framework for understanding UCAS decision making is his emphasis on the role and development of knowledge structure. He emphasised the constant building up of knowledge structures as information relevant to each new decision was gathered and stored, and the frequent reference to prior knowledge as a primary source of information when faced with the next decision. The ability to make any decision is therefore influenced by the individual's prior experience. The quality of outcome is linked to the relevance of that experience to the current decision: 'if you put bad data or incorrect knowledge into a human thought process, you will get wrong conclusions out the far end' (Simon, 1983, p93).

In UCAS terms, a young person from an advantaged home might be expected to have a strong, existing knowledge structure relating to higher education. This would be further enhanced if they had experienced high-quality IAG at school. Simon's model would predict that this would enable the young person to 'make sense' of the UCAS task. A strong knowledge structure would impact on both reasoning style and simplifying strategy, equipping the student to choose appropriate courses at suitable universities (see Figure 3.1).

Figure 3.1 Prior experience and UCAS decision making.

Knowledge	Reasoning	Strategy
A strong knowledge structure, based on family experience of university and high-quality IAG at school, will support active research, 'good' judgments and informed decision making.	Understanding the importance of university choice results in high levels of attention to the task. Knowledge of the HE-sector results in a focus on 'cold' reasoning and information sources.	Knowledge, understanding and active research will underpin an approach that seeks to 'optimise', gaining entry to the university that best matches personal goals or aspirations.

The converse of Figure 3.1 would be that disadvantaged environments would not provide familial knowledge of university and would be unlikely to provide high-quality IAG that could compensate for this lack. Simon (1990) associated the lack of an appropriate knowledge structure with the use of 'weak methods' such as satisficing, to reach decisions. A student with poor knowledge at the start of the process might

therefore rely on hot reasoning, and satisficing, choosing five courses that seem 'good enough' rather than searching for the 'best'.

A final link between Simon's model and the mechanisms of university choice is that the UCAS process is not a simple 'purchase' but is founded on the "uncertainty deriving from the responses of other actors" that Simon described (2000, p25). The value of any UCAS choice depends upon whether the application results in an offer from the university, meaning that applicants must compromise between preferred (or optimum) choices and realistic (or satisfactory) ones. An additional complication is that determining what *is* the optimum choice in the UCAS process is potentially difficult. To an external observer, the optimum may seem to be the most prestigious university at which an applicant meets the entry requirements. The research on patterns of progression cited in Chapter 1 does, at some level, make the assumption that this should be the desired goal. When the Sutton Trust titled its 2004 Report 'The Missing 3000' there was surely an implication that the *correct* destination for high achieving state-school applicants was a prestigious university. However, whilst for some applicants a high-status university may be crucial, for others, the key factor may be the university at which they feel most comfortable, or the university which best fits with other commitments. Simon's concept of satisficing, rather than optimising, warns against any assumption that a person's goals can be assumed.

Simon's model does not appear to have been directly linked to the UCAS process, but his work has been referenced in relation to educational choice. Foskett and Hemsley-Brown, in *Choosing Futures* (2001b), reviewed studies of educational decision making. They concluded that traditional models of decision making based on assumptions of rational behaviour did not reflect the reality of the decision making process. The studies they cited frequently referenced Simon's work.

3.4 Linking Bronfenbrenner and Simon: an applicant-centred approach.

A congruent feature of Bronfenbrenner and Simon's models is the importance of knowledge structure and 'know-how' in guiding our decisions and actions, and a recognition that the lifetime experience of a young person determines the content, quality and relevance of what is known. Both theorists would predict that an environment which frequently references aspects of higher education would produce a young person with a greater store of potentially relevant knowledge, and that the *content* of that knowledge would determine its value as a decision making tool. Simon warned that the quality of any decision is limited by the quality of the information on which it is based. In UCAS terms, the availability of accurate, current information,

whether from the home, school or universities themselves, might reasonably be expected to influence the quality of the knowledge that is being imparted. A decision to aim for a prestigious university requires a) an understanding that universities are not all considered equal, and b) a knowledge of *which* universities are regarded as superior. Bronfenbrenner's acknowledgement of consistencies *across* settings warns that a young person with little or no direct familial experience of prestigious universities is likely to attend schools or colleges where direct experience of such universities is also limited.

However, whilst environmental settings and learning opportunities build the knowledge structures from which applicants make their decisions, the contribution of personal agency cannot be overlooked. Simon's emphasis on procedural rationality, which focusses on the actual process of decision making rather than simply the outcome, recognises that the psychology of the decision maker is central to understanding. Bronfenbrenner's focus on the developing child's potential to influence the enduring interactions that shape proximal processes, means that any explanatory model must also acknowledge the personal goals of individual applicants, and the skills and achievements they bring to the creation of a UCAS application.

At the simplest level, an applicant-centred model of UCAS decision making must offer a framework for exploring how young people find universities, choose five courses and submit an application. A synthesis of Bronfenbrenner and Simon could provide a framework for this (see Figure 3.2).

Figure 3.2 The applicant and the environment in UCAS decision making.

Differences in knowledge structure, simplifying strategy and choice of reasoning style, further influenced by a range of person-process-context variables, could produce many variations in approach to decision making. Contributing to a fuller understanding of UCAS choice requires quantitative measurement of what applicants know and how they behave, but also requires qualitative measurement of the cognitive and emotional processes that underpinned their actions.

3.5 Summary.

This chapter has shown how young people in the digital age face both opportunities and risks from the huge volume of online information that relates to higher education. Independent searches conducted by prospective students with limited knowledge can return information which, if there is an absence of informed guidance, serves only to misinform or mislead the student. The UCAS website itself is potentially an excellent source of current information allowing comparison of universities, but to take full advantage of its resources and facilities the applicant would need a level of understanding that the site itself does not provide. In this situation, those young people who have appropriate IAG at a sufficiently early stage to predate any independent attempts to find courses would appear to be at a considerable advantage, as might those who begin their search from a home environment in which parents understand the university sector and are themselves digitally literate. Once again, it appears that a middle-class background conveys advantage, even at a stage in the application process that is supposed to be transparent and fair.

Given all this, a greater understanding of the mechanisms that underpin the choice of five universities would add to current knowledge. At a methodological level, the research described in this thesis will provide data that describes each stage of the UCAS process. At a conceptual level, Simon's behavioural approach to explaining decision making, synthesised with Bronfenbrenner's Bioecological Model, is proposed as a way of framing this understanding.

Chapter 4: Methodology.

This chapter describes the process by which the methodology for the study was chosen and implemented. Beginning with the prevailing paradigms in the literature, it presents the case for a pragmatic worldview as the best way to implement the study. The choice of a mixed-methods design, and the creation of a set of research tools able to produce data that could answer all five research questions, is then described from conception to delivery of the project. Key considerations described include ethical issues, reliability and validity, sampling, and the merging of data strands for analysis and interpretation to develop themes that could be related to the theoretical concepts underpinning the study.

4.1 The Research Questions.

The primary aim of the study was to discover how young people navigate the decision making process that culminates with their acceptance of a Firm and an Insurance university with UCAS. The logic of the conceptual framework suggested two requirements for the research. First, the study had to determine the environmental influences that could impact on UCAS decision making and how these might be influenced by person-process-context interactions. Second, it had to identify the content of the UCAS-related knowledge structure an applicant possessed, and uncover how this knowledge was used by the decision-maker. Given the complexity of the UCAS process and the need to measure behaviour over a time-period that might span several years, it was decided to break down the primary aim into objectives that related to five stages of the UCAS process. This resulted in five research questions:

> **RQ1** Which UK universities had the students heard of, and what factors influenced their knowledge?
> **RQ2** What sources of information had the students used, and how did they value these sources?
> **RQ3** How did the students generate a longlist, and which universities did they include?
> **RQ4** How did the students select a shortlist, and which universities did they include?
> **RQ5** What factors determined a student's final choice of Conditional Firm (CF) and Conditional Insurance (CI) universities?

The questions provided a framework through which the contribution of applicant and environmental characteristics to the decision making process could emerge. Breaking down the decision making process by UCAS stages was intended to provide a 'scaffold' that could support the gradual recall of actions. Referring to *named* UK universities at each stage ensured accurate measurement of the universities that each student had knowledge of, or interest in attending. This level of detail would enable valid conclusions about understanding of relative status to be drawn, because it allowed for comparison of *perceived* status with comparative data such as league tables.

Selection of the most appropriate methodology to answer the questions began with consideration of approaches used in the current research literature.

4.2 Paradigms, Worldviews, and their practical implications.

The literature reviewed in Chapters One to Three had shown that existing knowledge on progression to higher education could be broadly divided into research that derived from two very different paradigms. A postpositivist worldview using empirical, quantitative techniques, had produced analysis of application and entry statistics that consistently showed class-based disparity in patterns of progression. A constructivist worldview, using inductive methods, had identified a range of class-based differences in experience and perception that could offer explanations for disparity in progression. Both approaches had strengths and weaknesses.

Drawing on Creswell and Plano Clark (2011) and using hypothetical examples relevant to this study, it is possible to demonstrate how each approach might contribute to the university progression debate in different ways (see Table 4.1 *overleaf)*.

Table 4.1 Worldviews and practical implications of the prevailing paradigms.

	Postpositivism	Constructivism
Ontology	**Singular reality:** e.g. a hypothesis that working-class students do not aspire to prestigious universities may be supported by quantitative data that show disproportionally high progression rates from independent schools.	**Multiple realities:** e.g. a range of perspectives on progression to prestigious universities may be presented by quoting students from different social backgrounds and different types of school.
Epistemology	**Distance and impartiality:** e.g. progression to higher education studied by analysis of statistical evidence drawn from national datasets.	**Closeness:** e.g. researchers may visit schools and colleges to gather data first-hand on progression aspirations and intentions.
Axiology	**Deliberate strategies to remove bias:** e.g. social class determined by POLAR 2 classifications.	**Acceptance of bias and interpretation:** e.g. participants may be invited to self-declare their social class.
Methodology	**Deductive:** e.g. research suggesting that working-class students with high A level grades have 'underachieved' if they do not enter a prestigious university rests on an a priori assumption that the student's aim should be to enter the 'best' university.	**Inductive:** e.g. research may begin by seeking working-class views on what makes a university desirable, and then use this to build theories about outcomes. A student with high A level grades may have personal criteria for the 'best' university for them.
Strengths	Progression data would be comprehensive and accurate. Criteria for selection of 'prestigious' universities and social class determination of students would be transparent.	Stated reasons for choosing some universities and avoiding others would reflect the actual experience and opinions of prospective students. The meaning of 'prestige' would emerge.
Weaknesses	Any judgments about *why* lower-class students are less likely to enter prestigious universities would be speculative as there is no data from the students themselves.	Criteria for determining social class of students and 'prestige' of a university would be subjective, some comments may therefore be spurious, rather than illustrative of the progression data.

Adapted from Creswell and Plano Clark, 2011, p42.

The strengths and weaknesses identified in each approach do, to some extent, compensate for each other, offering the possibility that a more complete understanding of progression might be offered by combining elements of both approaches, but there might still be knowledge gaps: a post-positivist approach using national progression datasets would not confirm whether students know *which* UK universities are regarded as prestigious, and a constructivist approach might offer only limited data based on universities that respondents happen to be aware of. Drawing valid conclusions that working-class students actively avoid prestigious universities would first require some measurement of their knowledge and understanding of prestige and hierarchy (for example, knowledge of Russell Group members, or league table positions of universities they have chosen). In the absence of this data, many interpretations are possible. Some students may believe they *have* chosen prestigious universities when the reality is that they have not. To answer the research questions in a way that could clarify meaning and understanding, it seemed that the methodology should not be constrained by a worldview associated with just one paradigm, but *synergistic* (Hall and Howard, 2008) such that the effect of combining both research approaches would be greater than the sum of the parts.

Mixed methods as a research technique can offer a 'dialectical' perspective that combines both paradigms within a study (Greene and Caracelli, 1997) or rely on a single, pragmatic worldview in which methodological choices are guided by a practical, applied research philosophy that embraces both quantitative and qualitative methods (Tashakkori and Teddlie, 2003). In reviewing these two approaches, Creswell and Plano Clark (2011) suggested that the choice of either multiple paradigms or a pragmatic approach should depend on the type of design selected for the study, arguing that if a study gathers both types of data simultaneously and merges the results, *pragmatism* is the appropriate worldview, offering a pluralistic stance that enables collection of whatever types of data can best answer the research questions.

4.2 (i) Pragmatism as a Worldview for the study.

Pragmatism appeared to offer an appropriate way of conducting the research, but to explore this more fully, the practical implications of using pragmatism as a worldview for the study were considered in the context of the progression debate (see Table 4.2 *overleaf*).

Table 4.2 Worldview elements and characteristics of Pragmatism.

	Characteristics of Pragmatism
Ontology	**Singular *and* multiple realities:** e.g. national datasets do confirm class-based differences in progression but evidence from many perspectives could be sought to explain this finding, since all sources of evidence provide acceptable versions of reality.
Epistemology	**Practicality:** e.g. data collection is determined by 'what works' to address the research questions and is not constrained by a belief in distance or closeness, meaning that national datasets *and* data collected directly from individual applicants could both contribute to research.
Axiology	**Multiple stances:** e.g. unbiased knowledge of prestige obtained by means of a controlled experiment, and biased knowledge gained by a focus group discussion would be equally acceptable as research data. .
Methodology	**Combining:** both deductive and inductive reasoning may generate research, meaning that evidence may be both data-driven and theory-driven.

Adapted from Creswell and Plano Clark, 2011, p42.

At an ontological level, pragmatism offered a means of accepting the value of diverse elements of the current research and thinking, all of which had contributed to the progression debate although coming from different perspectives. The practical, epistemological approach of pragmatism facilitated the use of both objective sources of progression data, and the knowledge gained from my twenty years of practitioner experience in the field, in shaping the study. In terms of axiology and methodology, this perspective accepted that both biased and unbiased knowledge, deductive and inductive reasoning, can provide valid data. An approach grounded in this paradigm would therefore create multiple opportunities to devise innovative ways of collecting data that might illuminate the many issues that potentially underpinned each of the research questions.

A final consideration, however, was to confirm that the theoretical basis of the study could be justifiably linked with the paradigm, methodology and methods being proposed. Crotty (1998) juxtaposes the theoretical stance chosen for a research study between paradigm and methodology. Drawing on this approach, the proposed synthesis of Bronfenbrenner's Bioecological Model with Simon's Behavioural Model, suggested that pragmatism would offer an appropriate 'lens' for the proposed study (see Figure 4.1 *overleaf*).

Figure 4.1 Locating the theoretical lens within the paradigm and methodology.

Paradigm worldview
Pragmatism, using a problem-centred,
pluralistic approach, oriented towards
'what works', and real-world practice.

Theoretical lens
Bronfenbrenner's Bioecological Model,
encompassing P-P-C-T influences on behaviour,
but recognising the constraints and limitations
acknowledged Simon's Behavioural Model.

Methodology
Mixed-methods, collecting quantitative
and qualitative data from the same students.

Methods
Drawing on a wide range of
techniques to create research
tools that best demonstrate
capacity to answer the
research questions.

The theoretical lens itself drew on approaches that questioned whether methodologies framed within a relatively narrow worldview could offer adequate explanations of human behaviour. Bronfenbrenner had long expressed concerns about the use of laboratory studies, which he described as 'the science of strange behaviour of children in strange situations' (1979, p19). Instead, he favoured the use of investigative techniques that had the power to consider behaviour across more than one setting, taking account of transitions from one setting to another, and recognising the potential impact of the nature and degree of the interconnections between settings. Behaviour may be shaped by links *between* elements of the mesosystem and the respective *influence* of each setting. In the context of the thesis, parental views might differ from those expressed at school, and behaviour would be shaped by whichever of these was the most influential. Bronfenbrenner's P-P-C-T approach recognised that any young person is both a product and a partial producer of their own environment. This implied a need for tools that could unpick the contribution of both environment and applicant in determining aspects of behaviour. Simon (2000) reflecting on a career that had largely disregarded the boundaries created by strict adherence to subject discipline, criticised economists for their heavy reliance on the collection of aggregated data analysed by statistical regression. He urged them to adopt the wide range of techniques practised in

psychology, such as methods of observing and interviewing, of taking and analysing verbal think-aloud protocols, and especially the use of non-numerical data expressed in natural language. Simon emphasised procedural rationality (the *process* of decision making), in which the psychology of the decision maker was an important element. He called for 'empirical inquiry at the micro level – detailed study of decision-makers engaged in the task of choice' Simon, 1997, p369).

Both Bronfenbrenner's and Simon's approach to studying human behaviour therefore appeared to sit comfortably within a mixed-methods study.

4.3 Choosing a mixed-methods design.

In determining the most appropriate type of mixed methods design for the study, Creswell and Plano Clark (2011, p64) recognised four key decisions: 1) the level of interaction between the strands, 2) the relative priority of the strands, 3) the timing of the strands, and 4) the procedure for mixing the strands. Since the main argument for employing a mixed-methods design was that neither postpositivism nor constructivism had the capacity to fully explain the UCAS decision making process, these four decisions were influenced by a desire for maximum integration. The study would therefore have: 1) direct interaction at every stage, beginning with research questions that included both quantitative and qualitative elements, and ending with interpretation based on themes derived from both strands, 2) equal priority for both quantitative and qualitative elements, 3) concurrent timing, since the explanatory power of the qualitative strand would be dependent on interview comments being directly related to the quantitative data as it was being collected and, 4) data merging immediately following initial analysis, since explanatory or predictive themes that added to current knowledge would be most likely to occur if the interpretation resulted from a merging of numbers and narrative. The outcome of these four decisions indicated that the most appropriate mixed-methods approach would be to use a convergent design.

4.4 Designing the study: an overview.

The design of a study that could gather sufficient quantitative and qualitative data in a single data collection exercise to answer all five research questions, required considerable thought and planning. Sections 4.6 to 4.9 explain each stage of this process, but to aid understanding of a relatively complex design, a diagram that synthesises the relationships between tools, products, analysis and interpretation follows (see Figure 4.2 *overleaf*)

Figure 4.2 Outline of mixed methods convergent design used for the study.

QUANTITATIVE tools
Card-sort Tasks 1-4
1: universities known (RQ 1) universities longlisted (RQ 3) universities shortlisted (RQ4).
2: sources of information used to research UCAS choices (RQ 2).
3: order of preference in the longlist (RQ 3).
4: confidence in long/short-listed universities (RQ 4, 5).

Procedure

Select 8-10 students in each of six cohorts from different types of school/college.

Conduct interviews according to schedule that integrates QUAN and QUAL tools.

QUALITATIVE tools
Interview questions 1-5
1: first thoughts/plans for university (RQ1).
2(a-e): how possible universities were found (RQ 2-5).
3: reasons for selecting or discarding universities (RQ 3, 4).
4: CF/CI decisions (RQ 5).
5: main influence? (RQ 3, 4).

Products
Numerical items: counts, rankings, ratings.
Nominal items: names of universities.

Products
Transcripts: spontaneous comments and responses to prompt questions as made during interview.

Analysis
Numerical items:
Descriptive statistics at sample and cohort level. Inferential statistics to measure the effect of between and within-group differences.
Nominal items: popularity of individual universities ranked by sample and cohort at 'knowledge', 'longlist' and 'shortlist' stages.

Analysis
Transcripts annotated to highlight key themes (e.g. parental influence, teacher guidance) and decision making stages (e.g. longlisting, shortlisting). Interview comments tabulated to produce personal data (horizontal axis) and theme data (vertical axis).

Merge results
Cross tabulate QUAN and QUAL data by key themes and decision stages.

Interpretation
Consider how QUAN and QUAL data integrate to illustrate and explain how results answer the research question.

4.5 Ethical issues considered in the design of the study.

Since the fieldwork would measure decision making at a single point in the UCAS cycle, which was still an ongoing process, a prime consideration was to ensure that no participant would leave the interview feeling their behaviour had been measured against any external standard or had fallen short of expectations in any way. This requirement was considered at every stage of the conception, design and conduct of the study and strongly influenced the form of the research tools. The proposal was approved by the Institute of Education Ethics Committee, and adhered to the British Psychological Society Code of Ethics and Conduct (2009), which outlined standards of conduct under four key principles: respect, competence, responsibility and integrity.

4.5 (i) Respect.

Respect for all participants on grounds of gender, ethnicity, religion, family background or socio-economic status was carefully considered in the creation of tasks and questions, to ensure that no part of the interview might suggest a lack of respect for any approach taken. Prior to the fieldwork, discussion with at least one manager and one practitioner in each centre explored how the UCAS process was managed, in order that the culture and policies of the school or college and the expert knowledge of the staff would be respected throughout the fieldwork period.

Informed consent was ensured by the provision of information about the study before volunteers participated (Appendix 1) and its repetition before the consent form (Appendix 2) was signed. The option for a participant to leave the interview, or decline any task, was emphasised at the start of the interview. No participant left an interview, but one participant declined part of card-sort Task 3, which he found hard to complete.

Confidentiality of the interview process was assured by using a private room that could not be overlooked or overheard. Participants were told that only generic information, that did not identify any individual would be shared with their school. Record sheets were marked only with a pseudonym, which reflected gender, but no other personal characteristic that might have enabled identification, such as ethnicity. School and college descriptions were framed within the need to avoid identification.

4.5 (ii) Competence.

Salient factors were the researcher's professional background in the field, and experience of conducting and recording interviews, which ensured the proposed research was well within the bounds of competence. The initial discussions with fieldwork centres provided sufficient details of the researcher's background and

professional roles to demonstrate the necessary competence and suitability, including evidence of current Criminal Records Bureau (CRB)[5] clearance.

4.5 (iii) Responsibility.

The wellbeing and personal dignity of participants was considered at each stage of the interview process: for example, participants were asked if they had 'made their firm and insurance choices', rather than being asked if they had 'received offers or rejections'. It was made clear that declining any part of the interview would have no adverse consequences of any kind. Each interview ended with a debrief that restated how the outcomes of the research would be used, and provided an opportunity for participants to ask any questions or offer comments. It was common for participants to make positive comments about the value of the interview experience, often saying they now felt more confident about the way they had chosen their universities.

4.5 (iv) Integrity.

Care was taken to ensure that the data collected was an accurate reflection of the process that had been described (for example, verbal resumes of recorded comments were given during the interview so that participants could confirm accuracy) and that the research findings were represented honestly. Possible risks to integrity by merging the boundaries of researcher and professional were acknowledged, and it was made clear to staff and students that my role was to conduct the research, not to give professional advice or comment.

4.6 The quantitative strand: research tools, products and analysis.

The quantitative tools were required to produce data that measured: a) the number and type of universities recognised, longlisted and shortlisted by the students, b) the sources of information used to research their chosen universities, c) students' preference ratings amongst universities they had longlisted and, d) their confidence that they could obtain a place at these universities. Each of these measures had to offer objective ways of describing and comparing behaviour, such that inferential statistics could identify any significant between- or within-group effects. The first two measurements would require consideration of large amounts of data, which could exceed decision making capacity unless carefully handled.

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[5] The CRB was replaced on 1st March 2013 following changes to the Independent Safeguarding Authority to form the Disclosure and Barring Service (DBS).

During a six-month period immediately before registering for my PhD, I was able to work with UCAS applicants in two schools and two colleges to explore the value of questionnaires, focus groups, interviews, vignettes, diary studies and card-sorting as research tools. It was apparent from these trials that card-sorting had the power to elicit quantitative responses that described the UCAS process in a way that other research tools did not.

Card-sort tasks are most often employed to help determine clusters or categories, and can be either an open, generative process (in which cards are sorted into clusters determined by the participant) or a closed, evaluative process (in which cards are sorted into categories pre-determined by the researcher). The data is often at a nominal level of measurement: cards are simply counted as being in one category or another. They are commonly used by information architects as a tool to create user-friendly web structures (e.g. Hannah, 2005) and by psychometricians as a diagnostic tool, (e.g. the Wisconsin card sort test, Grant and Berg, 1948) They can also be found in some on-line careers services, such as the Escalate card sort resource (Higher Education Academy, 2007). They have been used to measure self-assessment of skills or attributes (e.g. Ackhurst and Paton, 2007) which may involve placing cards against a pre-determined, ordinal scale rather than a sort into nominal categories. The wide range of fields within which card sorts are used demonstrates their versatility as a research tool and, although they do not typically appear in the field of progression to higher education, several factors indicated their suitability as a tool that could enable the students to describe how they made their UCAS decisions.

Firstly, card-sorts are effective when considering large amounts of data, and UCAS applicants may have considered many universities using a wide range of sources of information. Secondly, card-sorts offer a degree of flexibility to determine the order and flow within a task, and the card-sort trials had shown that students used this flexibility to suit their preferred style. Some worked systematically through each possible source, some focussed on one university art a time, and some operated in an organic way, with one memory triggering another. Thirdly, card-sorts facilitate adjustment and modification of choices, which was particularly appropriate when, for example, students were asked to place universities in rank order of preference. Finally, although card-sorting was envisaged as a quantitative tool, the trials had demonstrated an unexpected potential of card sorting as a 'thinking aloud' technique that could generate additional qualitative data. For example, when placing an 'open day' card the sorter might comment that it had been a terrible event that changed their perception of a university, or when placing a 'website' card might recall that the keyword search for that university had been very poor. It appeared that spontaneous comments during the

card sort would have the potential to link the quantitative and qualitative elements of the design, helping to achieve the aim of a seamless interview experience generating both numbers and narrative.

4.6 (i) Card-sort Task 1: knowledge of, and interest in, UK universities.

The first card-sort would identify the universities that were recognised, longlisted or shortlisted, and required two sets of cards: a) a set of category cards and, b) a set of university name cards. The category cards encompassed four possible outcomes for each university: I applied to this university; I did consider this university but decided not to apply there; I have heard of this university but did not consider applying there; I have not heard of this university before. Students taking part in the pilot interviews confirmed that these were clear and distinct (see section 4.10).

The university name cards had to make the task as comprehensive as possible, whilst recognising that the limitations of human decision making capacity (Simon, 1983; 2000) must govern the complexity of the task. The most comprehensive source of information for institutions offering undergraduate degree courses was the UCAS datasets for 2010, which listed over 300 providers that accepted students through UCAS on at least one full-time undergraduate course. Sorting 300 plus cards would have been unrealistic, but inspection of the datasets by type of provider showed that many were not universities. The datasets were filtered to remove providers who met one or more of the following criteria: fewer than 100 accepted applicants; colleges of further education; 'small and specialist' institutions such as agriculture, drama or theological colleges; federations or satellite campuses of universities already listed. This reduced the data to a realistic, and meaningful, list of 114 universities.

However, a further consideration was the need to identify those universities that could be regarded as 'prestigious'. Restricting the definition to the Russell Group, which requires very high grades and favours traditional courses, would have been a narrow definition. The research-intensive universities of the 1994 Group often appeared in the top twenty of the subject league tables but offered a wider range of less-traditional courses, with slightly lower entry requirements. Combining the two provided a broad definition of prestige, not elitism. Checking the 114 universities already selected against membership of these groups found one anomaly: SOAS (the School of Oriental and African Studies), which had been removed because it fell below the criteria of 100 accepted applicants, was added, giving a set of 115 university name cards.

One final consideration was highlighted by the decision to include SOAS: when should acronyms be used in place of full names? This decision was guided by 'official'

usage (e.g. title used in UCAS datasets) and 'common' usage (e.g. materials and communications produced by a university), but the most important consideration was how a university was known by applicants and advisers. This was established during the six-month exploration of possible research tools by asking student applicants which version they recognised, (e.g. University College, London was consistently known as UCL, but the University of Central Lancashire was *not* known as UCLAN, even though their marketing materials sometimes used this acronym).

One final set of cards was created to cover the possibility that a participant might have considered or applied to one of the providers that was not listed. These cards were blank, and were placed on the table with a pen for the creation of any additional cards if needed. A list of the 115 universities, showing membership of the Russell or 1994 Groups (referred to collectively as RG94-universities), can be found in Appendix 3. Standardised instructions for all four tasks can be found in Appendix 4.

Image 4.1 Cards being sorted in Task 1.
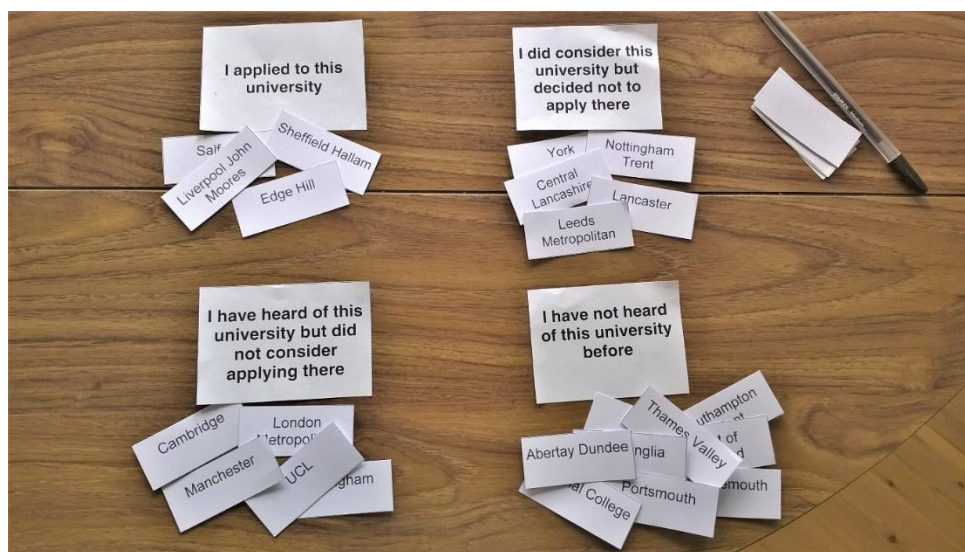
4.6 (ii) Card-sort Task 2: sources of information and communication.

The second card-sort measured the sources of information (e.g. websites, prospectuses) and means of communication (e.g. telephone calls or emails) used by the students to research their UCAS choice universities. In contrast to Task 1, there was no 'official' source of items to use as a starting point, but three potential sources were available; a) items identified in studies included in the literature review, b) items suggested provided by colleagues working in a university recruitment and admissions team and, c) items recorded in student diary entries recorded as part of the research tools trial. This produced more than sixty possible items which, since the task would

involve simultaneous consideration of all cards, had to be reduced to a manageable number whilst still covering the most common ways of researching universities. Seven advice and guidance staff were asked to select a maximum of 30 items they felt would reflect the behaviour of their students. Items that were selected by at least five staff were considered and, after merging some very similar items (e.g. using the generic word 'staff' rather than teacher, tutor, adviser, etc.) twenty items emerged as the basis of the card set. Three additional items (Twitter, Facebook and YouTube), were also included for the following reasons: a) practitioners had commented that these were new but rapidly gaining popularity, b) recruitment and admissions colleagues had spoken of a policy to encourage use of social media by their universities and, c) during the six months in which possible research tools were being trialled, students' use of social media to interact with universities had risen rapidly, from 1% to 10%. A set of blank cards, for the creation of any less common sources not already listed, brought the set to 24 cards (see Appendix 5).

Image 4.2 Cards being selected for Task 2.
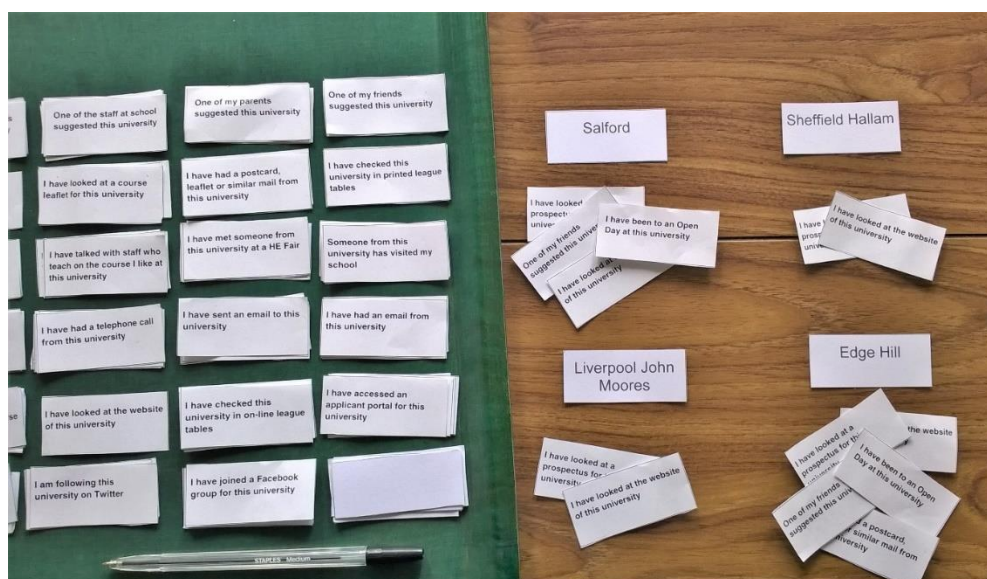
4.6 (iii) Card-sort Task 3: order of preference amongst longlisted universities.

The third card-sort task used only the university name cards sorted as 'I applied to this university' and 'I did consider this university but decided not to apply there'. The students were asked to sort these cards from their most preferred to least preferred university, if the *only* issue had been how much they *liked* each one, and such things as entry requirements, course content, or distance travelled, had not formed any part of their decision process.

Image 4.3 Cards being ranked in Task 3.

4.6 (iv) Card-sort Task 4: confidence of obtaining a place at the universities.

The fourth card-sort used the name cards of all the longlisted universities, but required a new set of category cards to indicate strength of confidence in obtaining a place at each longlisted university. These were determined by producing four attitudinal statements that ranged from high confidence to low confidence, and refining the wording during piloting of the interview (see Appendix 6) to achieve categories that students felt were clear, easily interpreted, and offered 'equal appearing intervals' (Coolican, 2009).

Image 4.4 Cards being sorted in Task 4.
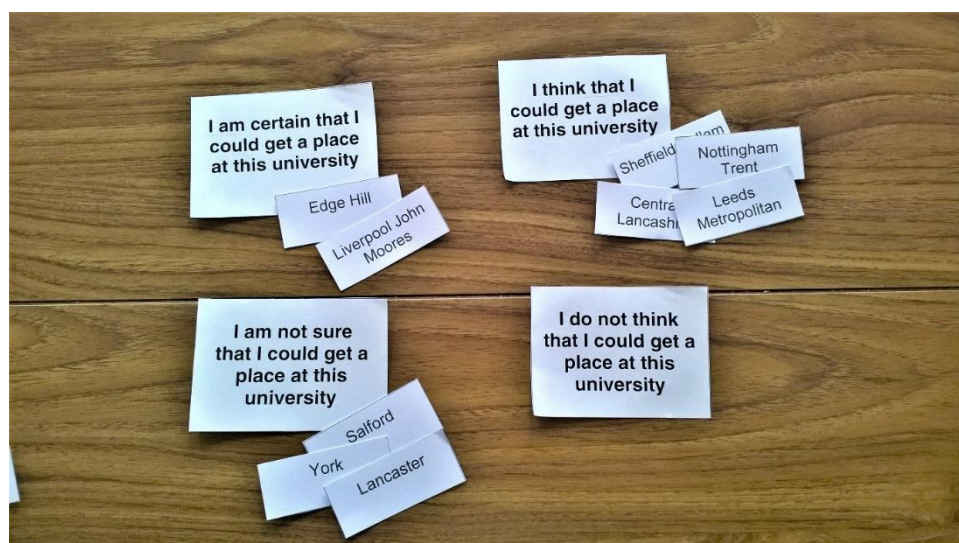
4.6 (v) Quantitative strand: the products.

Each task produced numerical data that measured behaviour at one or more stages of the decision making process. The products of the four tasks therefore comprised four main datasets that could be used for analysis of whole sample data and then broken down at cohort level or by themes, to enable a series of between-group comparisons. Task 1 was particularly complex because it addressed three of the research questions, and even at the design stage (i.e. before any themes from the qualitative strand were known) it was evident that the data could be meaningfully divided into 63 subsets (see Figure 4.3).

Figure 4.3 Total number of data subsets drawn from card-sort Task 1.

Product: Task 1

The actual universities recognised, longlisted and shortlisted by each participant.

RQ1 analysis

1 Whole sample frequency distribution of number recognised.
2 As above for RG94-universities
3-8 Six cohort distributions of number recognised
9-14 As above for RG94-universities
15 Frequency with which each UK university was recognised
16-21 UK universities recognised by each cohort

RQ3 analysis

22 Whole sample frequency distribution of number longlisted
23 As above for RG94-universities

24-29 Six cohort distributions of number longlisted
30-35 As above for RG94-universities
36 Frequency with which each UK university was longlisted
37-42 UK universities longlisted by each cohort

RQ4 analysis

43 Whole sample frequency distribution of number shortlisted
44 As above for RG94-universities
45-50 Six cohort distributions of number shortlisted
51-56 As above for RG94-universities
57 Frequency with which each UK university was shortlisted
58-63 UK universities shortlisted by each cohort

The anticipated breakdown for Task 2 data produced fourteen subsets: the whole sample plus six cohorts for the total number of cards selected, and the whole sample plus six cohorts for the percentage usage of each item on the cards. Task 3 produced seven subsets: preference adjustment scores for the whole sample plus six cohorts. Task 4 produced fourteen subsets: confidence in gaining a place at UCAS choice universities for the whole sample plus six cohorts, and confidence of gaining a place at the universities discarded at the shortlisting stage, again for the whole sample plus six cohorts. Establishing this level of detail was important, because ensuring that there would be appropriate quantitative data for purposes of statistical comparison on a wide range of themes suggested by the qualitative data was a key strength of the chosen mixed methods design.

4.6 (vi) Quantitative strand: the analysis.

Every card used by a participant in each of the tasks was recorded in Excel, and spreadsheet entries were cross-checked by a colleague to ensure the accuracy and integrity of the quantitative data sets. Excel was chosen for analysis of the card sort data because of its ease of manipulation, enabling data to be sorted by task, by cohort or by participant. Excel also facilitated the calculation of 'adjustment' scores based on preference rankings (Task 3) and 'relative confidence' scores (Task 4), and the application of statistical tests.

The choice of statistical procedures was influenced by the level of measurement. Tasks 1 and 2 produced data that was nominal at the point of categorisation (e.g. a university was either recognised or not, longlisted or not) but completion of these tasks generated a set of scores for each student that could legitimately be treated as ordinal (e.g. the students could be ranked by the number of universities they longlisted or the number of source cards they used). Tasks 3 and 4 generated data at an ordinal level, since the cards were sorted into categories that were already rank ordered (i.e. most preferred to least preferred; very confident to not confident).

The median, range and semi-interquartile range, were appropriate for both whole sample and cohort data, with frequency distributions offering a visual interpretation. As the study was predicated on the idea of cohort differences and trends, inferential statistics that could determine the probability of each data comparison were required. Since none of the data would be measured at interval level, only non-parametric tests were considered. These included: Chi-square test of association, Kolmogorov-Smirnoff one sample test, Kruskall-Wallis one way analysis of variance and Jonckheere's trend test (Siegel and Castellan, 1988; Coolican, 2009).

4.7 Qualitative strand: research tools, products and analysis.

The qualitative strand was required to produce data that could complement the card-sort, offering a greater understanding of similarities or differences found in the statistical analysis, and providing a more nuanced description of how universities had been chosen than could be seen in the numerical data. A key decision that preceded the creation of the qualitative tools was to focus on 'how' questions, rather than 'why' questions. This was influenced by two factors: firstly, the primary objective of the research was to uncover *how* UCAS choices were made, secondly, the research tools trial had shown that asking students *how* they chose their universities generated fuller, more detailed responses than asking *why* they had chosen them. A second key decision was to use open questions that posed no restrictions on the content of the reply, since this acknowledged the very wide range of influences that could have contributed to UCAS decision making. One possible disadvantage of open-ended questioning is that participants may not speak of topics the researcher is interested in, and the use of prompts or prompt cards is sometimes advocated as a solution (Robson, 2016). Because of the direct integration of strands, the tray of 'sources' cards used in Task 2 provided a non-directive method of indicating that a wide-ranging answer to questions about choice of universities would be appropriate, without the risk of generating 'false positive' comments that could arise in response to direct prompts.

The two main criteria for creating the open questions were, a) that they generated data on all stages of the UCAS process, and b) that they encouraged consideration of the full range of applicant and environmental characteristics that might have contributed to the choice of universities.

4.7 (i) The interview questions.

The session began with 'warm up' questions that were designed to create a co-operative, non-threatening atmosphere before the interview began, and ended with 'cool off' questions to signal the end of the 'question and answer' part of the session, and lead in to the debrief, thanks and close (Robson, 2016). None of these were expected to provide answers to the research questions, but were used in a standard way and were included in the interview script (see Appendix 7).

The five questions designed to answer the research questions aimed to cover the entire decision process, from a participant's first interest in university through to the choice of firm and insurance universities with UCAS, and to encompass all influences known to be important from existing research literature. Question 2, which explored how the students had found out about possible universities, was broken down into five

parts based on feedback from the pilot students, who often gave long answers and expressed concern that they may have been 'saying too much'. Parts 2b to 2e asked about the role of school, parents, family and friends in contributing information, advice or guidance about universities. Question 2b, the role of the school, was supported by supplementary questions, if needed, to ensure that teachers, tutors and guidance staff were covered. For example: You've mentioned teachers and your tutor, did any of the Student Support Centre[6] staff have a role?

In wording the questions, care was to taken to avoid a) biased language that might presuppose a degree of involvement, for example, choosing 'role' rather than 'influence', b) potentially leading questions that identified specific actions such as website or prospectus use, or open day attendance and. c) jargon, including acronyms and abbreviations that might be used by staff but not recognised by students: for example, the pilot study indicated that whilst HE as an abbreviation for higher education would be understood, IAG as an abbreviation for information, advice and guidance would not. Consideration was also given to the use of terminology that might need to be 'school or college-appropriate': guidance staff may be known as 'careers staff' at one fieldwork centre and 'student support staff' at another.

The form of each question was also considered in relation to the card-sort task currently on the table. For example, '*these universities*' in Question 3 could be accompanied by a gesture, because it referred to the longlisted universities, name cards of which were on the table in front of the participant when the question was asked. Taking all of these factors into consideration, the six questions were:

Q1 Can you remember when it was that you first thought you might, or would, go to university? What can you tell me about that?

Q2a When you began to look for possible universities, how did you start, what did you do, and what was important to you?

Q2b Did any of the staff here at school (or college) have a role in finding universities or applying?

Q2c Did your parents have any role in this?

Q2d Did anyone else in the family have any role in this?

Q2e What about friends, did they have any role?

Q3 Can you talk me through the reasons for choosing some of these universities and discarding others?

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[6] References to staff roles and IAG services always used terminology that was appropriate to the school or college.

Q4 Can you talk me through the current situation with your application. Are you in a position yet to make decisions about your Firm and Insurance choices?

Q5 If you had to choose just one thing that was the most important influence on how you chose your universities, what would it be?

Q6 Finally, I'd like to ask if there is anything more you would like to tell me…are there any questions I should have asked you but didn't…or anything else I should have written down?

The session ended with a debrief question that provided a further opportunity for students to question any aspect of the research or the use it might be put to (full interview script Appendix 7).

4.7 (ii) The interview schedule.

The interview schedule aimed to create a coherent experience that could facilitate the unpicking of a decision making process that covered many months, or even years. The quantitative, card-sort tasks gave structure to the interview and were always completed in the same order. The interview questions were scheduled to contribute to the flow of the session, asking the students to reflect on issues relevant to the card-sort task just completed. However, since the questions were open, the schedule had to offer some flexibility in timing to accommodate individual variation in the order in which the students recalled information (see Appendix 8).

Interviews were scheduled for 60 minutes and timetabled during free study time, the lunch break, or immediately after the school day ended. All interviews were held in a private room with the participant and researcher sitting at two sides of a table, at right angles to each other. A sample interview transcript can be seen in Appendix 9.

4.7 (iii) Qualitative strand: the products.

The card-sort trials had shown that the tasks themselves would create time gaps in which it was feasible to write, review and augment comments, and to cross check against questions still to be asked to determine whether any amendments or prompts might be needed to ensure the interview protocol was fully delivered. Manual recording was therefore chosen.

During the session, comments were written in full view of the participant and, at the end of each card-sort task, the researcher gave a verbal resume of what had just been recorded before asking the next question or moving on to the next task. This ensured that the records accurately reported what had been *said*, and accurately reflected what the participant had *meant* (e.g. a student who initially said 'gap year' corrected this by saying he meant 'sandwich year' after hearing the resume, see

Appendix 9). If any of the supplementary parts of Question 2b were asked, this was noted on the record sheet.

4.7 (iv) Qualitative strand: the analysis.

The verbal responses were read and annotated immediately after the interview ended, to ensure clarity and accuracy. This immediate engagement also began the process recommended by Braun and Clarke (2006) of *immersion* in the data, to become familiar with the content and to note initial ideas. A transcript of the notes was typed up within 24 hours of each interview. Drawing on Saldana (2016) each transcript was then coded manually by identifying patterns of phrases or sentences that were clearly related to the research questions, using a cyclical technique in which transcripts were re-coded as the salient features of the qualitative data emerged with greater clarity (see Appendix 10). During this repeated reading and recoding, initial codes were merged or split as patterns and meanings were identified. For example, information about universities gained from family or from friends was placed in the same category because of the many similarities in meaning attached to comments about these two sources, whilst references to being close to home were spilt into two categories when it became clear that planning to continue *living* at home meant something rather different to a desire not to move too far away. At the end of this process, 23 codes had been identified and, again drawing on Saldana, these codes were synthesised to move towards consolidated meanings that led to the formation of six categories (see Appendix 11).Three of these emergent categories could be described as explicit in that they related to tangible or practical elements of the UCAS process (sources of information; sources of help and advice; constraints on choice) and might have been anticipated from the research questions and the current literature. The other three (purpose of university; status and reputation; attitudes and emotions) were more tacit and were 'data-driven' (Braun and Clarke, 2006), resulting from clear patterns in the verbal responses despite there being no research question that specifically asked about these topics.

4.8 Merging and interpreting the results for thematic analysis.

Microsoft Excel was used as a repository for data from both strands so that each row contained data from an individual participant and each column contained data from a card-sort task or a coded comment (Saldana, 2016). The merged analysis could then be manipulated to look for patterns that appeared to link elements of quantitative

and qualitative data, and that identified similarities or differences both between and within groups. For example, a spreadsheet sorting the data by Q5 (most important influence), suggested that answering 'league tables' was associated with: extensive longlists favouring the RG94-universities, frequent coding of [5a]*league table position,* deciding on university at an early age, shortlisting of prestigious universities, and complete absence of coding [4a]*living at home.* Those who answered Q5 with 'living at home' showed a very different pattern (see Appendix 12 for a spreadsheet extract).

An important contribution of the quantitative data was that numerical data located within a pattern (such as the number and type of universities longlisted or shortlisted), could be tested for statistical significance, adding further weight to the argument that these manipulations of data had identified potentially important patterns of behaviour that differentiated between groups of students. An important contribution of the qualitative data was the identification of a series of patterns in the data that often overlapped, reflecting the thematic analysis approach of Braun and Clarke (2006), and the codes-to-theory model of Saldana (2016), in which codes and categories can generate conceptual *themes* in the data that may be linked to the development of theory. Finally, Braun and Wilkinson's (2003) 'define and refine' approach was used to identify the *essence* of each theme. This resulted in the emergence of thematic approaches that could be discussed in relation to the conceptual basis of the thesis.

As might be anticipated from the design of the study, the card-sort tasks related strongly, but not exclusively, to a single chapter, as did certain of the qualitative categories (e.g. sources of information). Some of the qualitative categories were, however, referenced in every chapter because they pervaded the entire UCAS process (e.g. status and reputation). The conceptual themes, which could only fully emerge when all analysis was complete, would be presented in the discussion chapter.

4.9 Piloting the tasks.

The interview schedule was piloted with five volunteer students at one of the colleges involved in the research tools trial period. The students had completed the UCAS main cycle process and were holding offers from both firm and insurance choice universities.

The pilot confirmed that: a) the interview schedule was realistic and could be comfortably achieved within one hour, b) 115 university name cards was an acceptable number to sort in Task 1, c) the Task 1 category cards were unambiguous, and d) 23 source of information or communication cards plus the blank cards were adequate to ensure that all possible responses could be accommodated.

Elements that were modified following the pilot included: a) slightly changed wording for the category cards in Task 4 (see Appendix 6), b) removal of the word 'university' on the name cards because students said this was unnecessary and made the task more complex, and c) the breaking down of interview Question 2 into five parts, when feedback showed that students often had a great deal to say on this topic but feared they were 'talking too much' for an answer to just one question.

One element was changed completely following the pilot. It had been hoped that since the interview comments were recorded in full view of the participant, accuracy could be confirmed by simply asking the participant to read and confirm the record sheet. However, the pilot students sometimes crossed out their *accurately* recorded verbal comments and replaced them with something they perceived as more 'correct', which created an *inaccurate* record of the interview that had taken place. Periodic verbal resumes, to be verbally confirmed or corrected, were therefore used instead.

4.10 Population and sample.

The population for this research was, from the outset, defined by certain parameters. The study did not concern the total pool of university applicants, because the purpose of the research was to investigate how young people still at school or college make applications for full-time undergraduate courses via the UCAS main cycle applications process. Within this defined population, the literature review had shown that the type of school or college attended is linked to the type of university entered, therefore a key factor in selecting an appropriate sample was that the students came from a variety of educational environments, ranging from those with a limited history of preparing applicants for entry to any university (e.g. vocational students in colleges of further education) through to those with the strongest record of progression to prestigious universities (i.e. independent school sixth forms).

The number of schools, colleges, and student participants, had to be determined by balancing the need for a sufficiently large, varied sample, with the practical considerations of having a single researcher to collect the data. An appropriate minimum number of centres was deemed to be four, since this would allow for college vocational students, college A level students, school sixth formers and an independent school, covering the main types of full-time student applying to university. In view of the time needed for the interviews and the need to collect all data within a narrow period of the UCAS schedule, a maximum number of study cohorts was deemed to be six. An appropriate sample size was deemed to be between eight and

ten students in each of the cohorts, since this would suit the planned range of inferential statistics and could be achieved within three days at each fieldwork centre.

4.10 (i) The schools and colleges.

The six-month period in which possible research tools were being trialled had provided opportunities to discuss with staff the issues that might be involved in gaining permission to carry out a series of one-hour interviews with students who would shortly be taking examinations or assessments. Their responses suggested that access was most likely to be agreed where a supportive gatekeeper could be found. For this reason, the initial list of possible schools and colleges was based on institutions where I had an existing contact with a member of staff in a management position that included the remit for oversight of UCAS applications. Before contacting any establishments, the list was filtered (by using Ofsted and DERA data) to remove any school or college that appeared to be unsuitable for some reason (for example, one had a recent unsatisfactory Ofsted report, and another had A level results that were very low for the sector). The intention was to recruit schools and colleges that were representative of their type.

A letter and information sheet giving an overview of the project (see Appendix 13) was sent to the member of staff responsible for managing the UCAS process, and this was followed up by a telephone call to ask if they would like more information. In total, 47 schools and colleges were contacted and further discussions were held with three schools, one sixth form college and two colleges of further education. The discussions gave ample opportunity to explore the practicalities of the research, and resulted in two schools, a sixth form college and a college of further education being selected to participate. Both colleges offered A levels and vocational courses, and both agreed to host up to six fieldwork days to allow for two cohorts (A level and BTEC) to be included in the study. The study would therefore have six cohorts, the maximum number deemed to be feasible.

An important element in the final selection of fieldwork centres was that the six cohorts would not only be experiencing different types of 16-19 education, but that these environments would be *incrementally* different. This would enable a more nuanced understanding of the impact of environments. A description of the student body, curriculum, and the staff and resources available to UCAS applicants at each fieldwork centre is provided in Appendix 14. An overview of the centres is given in Table 4.3 (*overleaf*).

Table 4.3 Key features of the fieldwork centres.

	Type	Standard Curriculum	Average Grades	IAG support
Newtown College:	College of Further Education, in northern city.			Cross-college team led by Head of Guidance worked at both campuses to deliver UCAS advice programme.
Vocational Centre		BTEC National Diploma.	Merit	Vocational Centre also had full-time Connexions advisers. A Level Centre had Oxbridge programme for high achievers. All teachers and tutors were based at just one of the centres.
A Level Centre		A Levels in 3 subjects.	High Grade C	
Greenfields College	Sixth Form College, semi-rural, in north of England.	BTEC National Diploma, or 3 A levels[7].	Merit Grade C	Head of Guidance led small team to deliver UCAS programme and support the personal tutors. Connexions staff had desk space part-time. Oxbridge Group for high achievers.
Borough Sixth Form	Joint sixth form of two (11-18) state schools in London.	A Levels in 3 'academic' subjects.	High Grade C	Head of guidance delivered cross-school UCAS programme and managed the joint sixth form team and resource centre, where Connexions Adviser had part-time office.
The Croft School	11-18 Girls' boarding school, in south of England.	At least 4 AS levels, then 3 or 4 A levels in 'facilitating' subjects.	High Grade B	Head of Guidance led large team including external experts to deliver UCAS programme that began in year 10. Regular use made of Independent Schools' Careers Organisation. Strong links with UCAS and Russell Group.

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[7] Students took *either* BTEC *or* 3 A levels as their main qualification, but 'blended learning', in which BTEC students also took an AS, or A level students also took a BTEC unit was a popular option with students.

The differences in relation to qualification type, peer groups and history of progression produced incremental differences between cohorts. From the Newtown Vocational Centre, where progression to university was a recent development, to The Croft, where progression to a Russell Group university was routine, the six cohorts could be arranged on a continuum of HE-orientation, from least traditional to most traditional (see Figure 4.4).

Figure 4.4 HE-orientation of school or college: from 'least' to 'most' traditional.

Newtown Vocational Centre.	→	Greenfields BTEC group	→	Greenfields A Level group	→	Newtown A Level Centre	→	Borough Sixth Form	→	The Croft school
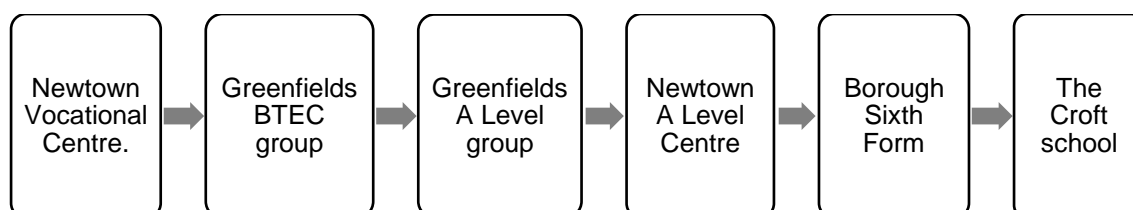
4.10 (ii) The students.

Discussion with staff at each school and college emphasised the need to aim for a cohort that was broadly representative of their UCAS applicants, and did not consist simply of highly motivated, high achieving students. The study was therefore promoted to all current UCAS applicants using a standard information letter, distributed via whatever was the usual method of communicating with students (see Appendix 15). If the initial request for volunteers produced a cohort of less than ten, a reminder of the project was disseminated. At the end of this process, four of the cohorts had ten volunteers, and two had nine, giving a total of 58 participants. However, two students were unable to attend their interviews and could not be replaced, giving a total of 56 participants across the six cohorts at the completion of the field work.

The only information that schools were asked to provide about the students was their name and the type of course they were following. This complied with institutional responsibilities for data protection at the four fieldwork centres. The students themselves were not asked to provide any information about prior examination success, but the nature of the research meant that all of the students voluntarily gave some information about their GCSE profile and the predicted outcomes of their A levels or BTEC. This confirmed that staff had attempted to provide a representative sample, since all six cohorts had both higher and lower achievers.

For identification purposes, a list comprising the 56 most popular names given to children born in 1993, the year when most of the students were born, was randomly

assigned to provide each student with an appropriately gendered pseudonym. If the pseudonym selected was the *actual* name of anyone within the cohort, another choice was made. The students would be identified only by their pseudonym throughout the thesis.

4.11 Establishing reliability and validity.

The concepts of reliability and validity have different implications for quantitative and qualitative designs, because they are grounded in different worldviews and espouse different beliefs about what is acceptable knowledge (Creswell and Plano Clark, 2011). Reliability is concerned with the degree to which the measurement of a concept is stable and consistent, and is therefore an essential prerequisite of validity (Bryman, 2004). Validity can take many forms, but construct, content, and criterion validity seemed particularly relevant to the quantitative strand, whilst trustworthiness and authenticity were important in the qualitative strand. External validity, the ability to generalise from the sample to the wider population, was important to both.

Reliability in quantitative studies is commonly checked by the 'test-retest' and 'split-half' methods, but these were not appropriate for the data. However, the integrated convergent design of the study meant that quantitative and qualitative tools often measured the same element of behaviour, which created opportunities for checking consistency by looking for any evidence of 'contradictory data' (Coolican, 2009). Consistency could be shown, for example, by a participant selecting 'open day' cards for just four of her chosen universities in Task 2, and then commenting in answer to Question 3 that she had not felt the need to attend an open day at her fifth university because her brother already studied there. Contradiction would be shown by a participant saying they had attended open days but selecting no such cards.

Construct validity refers to the extent to which a study is measuring the theoretical constructs on which it is based. Applicant and environment characteristics that can influence UCAS decision making were unpicked to produce a set of measurable behaviours or attributes indicative of each influencer, and compared to the tasks, questions and sampling procedure, to confirm that every indicator was being measured (see Table 4.4 *overleaf*).

Table 4.4 Linking the proposed theoretical model with the research tools.

Applicant and environmental influences on progression		Measurable indicators of influencer	Research tools relevant to these influencers
Applicant characteristics	Qualification profile.	A levels or BTEC? Existing results. Anticipated achievement.	Sampling procedure T3, T4, Q3, Q4.
	Extra-curricular profile.	Additional 'qualifications' relevant to course choice. Skills, attributes and experience.	T3, T4, Q3, Q4.
	Knowledge and understanding of higher education sector.	Number/type universities known. Number/type sources used. Awareness of hierarchy. Appropriateness of choices.	T1, T2, Q2. T1, T2, Q3. Q3, Q4. Q4.
	Family background.	Parental support/involvement. Other family members/friends.	T2, Q1, Q2b. T2, Q2c, Q2d.
	Attitudes, emotions and motivation.	Age at deciding on university. University preferences. Realistic/aspirational choices.	Q1, Q3. T3, T4, Q3, Q4, Q5. T3, T4, Q3, Q4.
Environment characteristics	Type of school or college.	State/independent, 11/18, 16-19. Curriculum and resources.	Sampling procedure.
	Extracurricular activities.	Profile building for UCAS form. Careers advice.	T4, Q2. T1, Q2, Q3.
	IAG model and resources.	Generic advice for UCAS process. Personal statement advice.	Sampling procedure, T1, T2, Q2, Q3.
	Experience of work.	Part-time employment. Work experience.	Q2, Q3, Q5. Q2, Q5.
	Social life, hobbies, sports.	Links with course/application. Status quo/make a new start.	T2, T3, Q2, Q3, Q5.

Content validity considers whether the instruments used to gather data are representative of *possible* items. In devising the quantitative tasks, care was taken to ensure that each element was representative of the ways in which UCAS applicants

make their decisions. For example: the selection of 115 universities for Task 1 was based on UCAS datasets to identify the institutions most likely to have been recognised or considered, and the 23 sources of information used for Task 2 were drawn from prior research in the field and refined by guidance staff. In devising the qualitative strand, the use of open questions and an interview schedule that enabled the students to return to topics if they recalled further information helped to ensure comprehensive measurement of each stage of the process and reduced the possibility of omissions. Finally, the pilot interviews had confirmed that students felt the process enabled them to adequately describe how they had chosen their universities.

Criterion validity confirms validity of quantitative tools by considering their performance against criteria predicted by the theoretical construct being tested, often by comparing with tools already in existence, for example, comparing scores on a new maths test with scores on an established test. In this case, there were no comparable, existing tools that measured how applicants make UCAS decisions, but it was possible to incorporate an element of *predictive* validity (Coolican, 2009) by drawing on existing evidence of UCAS behaviour: if the study was successfully operationalised, the research tools should be expected to identify differences between groups that were already known to have different progression outcomes, for example, independent school students would have the greatest knowledge of, and interest in, prestigious universities.

Criterion validity is not generally applied to qualitative studies, but the concept of 'disconfirming evidence' (Creswell and Plano Clark, 2011) in which a perspective *contrary* to that indicated by established evidence may confirm the accuracy of data (because, in real-life, evidence for themes does diverge) may be relevant. A BTEC student applying to a Russell Group university for philosophy, when established evidence indicates that BTEC students typically apply for vocational courses at less prestigious universities, would be an example.

The trustworthiness of participant contributions, and authenticity of researchers' conclusions, are primary concerns of qualitative research (Guba and Lincoln, 1994) and were established by two forms of respondent checking. During the interview, verbal resumes of key facts ensured that recorded information was accurate. After the fieldwork, guidance staff who had worked with four of the study cohorts were given summaries of key findings and asked whether the results reflected their experience and offered a credible account of the UCAS process as it operated within their college. The design of the study, which provided frequent opportunities for cross checking of findings from different persons, in different places, using different types of data, also reflected a *triangulation* approach, which has been cited as a way of strengthening

validity in qualitative studies (Cohen, Manion and Morrison, 2011; Miles, Huberman and Saldana, 2014).

External validity considers the extent to which results can be generalised to the population. In choosing the sample, a range of fieldwork sites that covered state and independent sectors, included both schools and colleges, and offered vocational courses in addition to A levels, ensured that most types of 16-19 study centre contributed to the research. In selecting participants, staff took all reasonable steps (within the confines of a volunteer study) to ensure that the sample included a range of achievement levels, which therefore ensured a range of UCAS experiences and outcomes. The research was designed to encourage the students to describe the UCAS process in ways that took account of their real-life experience, offering a degree of ecological validity that would support generalisability of the findings to UCAS applicants in the wider population. As an additional means of confirming that the study would have external validity, two former colleagues of the researcher read a summary of the research and gave feedback. Both had recently retired after a lifetime of working in 16-19 education (one in FE, the other in a grammar school sixth form) and both said that the study conclusions would, in their opinion, be relevant to the broader population.

4.12 Summary.

The adoption of pragmatism as a worldview for the project was compatible with a theoretical lens that merged a theory derived from developmental psychology, with a model that began as a rejection of neoclassical economics. The choice of a mixed methods, convergent design was a logical progression, but blending card-sorting with an interview format was a novel approach that emerged from a research tools trial showing the potential of card-sorts to elicit rich data capable of illuminating UCAS decision making in a way that was not apparent in existing research. This was furthered by a strong emphasis on adherence to ethical principles in the design and conduct of the study, which created an atmosphere that fostered the development of a sense of involvement in the research process and frequently resulted in positive debrief comments from participants. The involvement of different types of 16-19 students and study centres, produced a sample representative of the population of young, fulltime UCAS applicants. The results could therefore offer an in-depth perspective on decision making behaviour, with the potential to add new understanding to the literature on differential progression routes and the apparent links with family background.

Chapter 5: Knowledge of UK universities.

Introduction.

The first part of this chapter presents evidence that is pertinent to Research Question 1 (Which UK universities had the students heard of, and what factors influenced their knowledge?). It begins with analysis of the quantitative data provided by card-sort Task 1, in which cards assigned to categories 1, 2 and 3 together formed the list of every UK university that was known by each of the 56 students. The data is analysed by sample and cohort, using descriptive and inferential statistics to explore the number and type of sources used. It then explores the qualitative data generated by Question 1, showing how the responses often identified possible explanations for the numerical findings. The chapter shows how merging the two strands of data had the capacity to explain both limited and extensive recognition of universities. It also shows how links between two elements of behaviour began to emerge at an early stage in the interviews: the life-stage when university was first considered and the style of reasoning adopted by the student.

The second part of the chapter does not relate directly to any of the research questions, but considers the qualitative data for the one theme that emerged only during analysis: the purpose of university. This had not been included as an interview question because of the decision to focus on 'how' questions rather than 'why' questions, but many of the students did, at some point during the interview, speak about why they were applying to university or what they thought the benefits might be. This emergent theme suggested that a student's preferred style of reasoning, and the ecosystem level on which they focussed a search for information, might have played an influential part in the decision making process. However, it also suggested that the role of the school or college might be an important determinant of knowledge.

5.1 The number and type of universities the students had heard of.

The 115 university name cards were sorted by the 56 students into four, discrete categories indicating whether they had applied there, considered applying there, heard of the university but not considered it, or had never heard of that university before. The option to create additional cards for any institution not amongst the 115 cards was taken up only once, when Liam wrote an extra card for the Rose Bruford drama school. Of the 6,441 cards that were sorted, 3,496 (54.3%) were placed into the 'I have never heard of this university' category. The remaining 2,945 cards (45.7%) were distributed across the three categories that implied a degree of knowledge.

Student comments showed that a broad spectrum of knowledge states existed in relation to name-cards that were assigned to Category 3 (I have heard of this university), ranging from those where a participant knew the name of a university but very little about it, through to universities they knew quite well:

"Some of these *(pointing to the Category 3 pile)* I don't really know anything about the university itself, but all the big cities seem to have a university and I know there is one *here (as she added Birmingham to the pile)*. Is that OK?"

(Stephanie, Newtown A Level Centre)

"My ex-boyfriend goes here *(as she added the Huddersfield University card to the Category 3 pile)* so I haven't considered it even though I really like the university and it's good for my course."

(Katie, Newtown Vocational Centre)

There was considerable variation in the total number of universities students had heard of. The scores ranged from 10 to 97, with a median score of 53, and an inter-quartile range of 28 (25th percentile at 39 and 75th percentile at 66). Statistically, there were two outliers in the data (Marsh and Elliot, 2008), one at each end of the distribution (scores of 10 and 97). Visual presentation of the scores produced a distribution with considerable symmetry either side of the median (see Figure 5.1).

Figure 5.1 Frequency distribution for number of universities known.
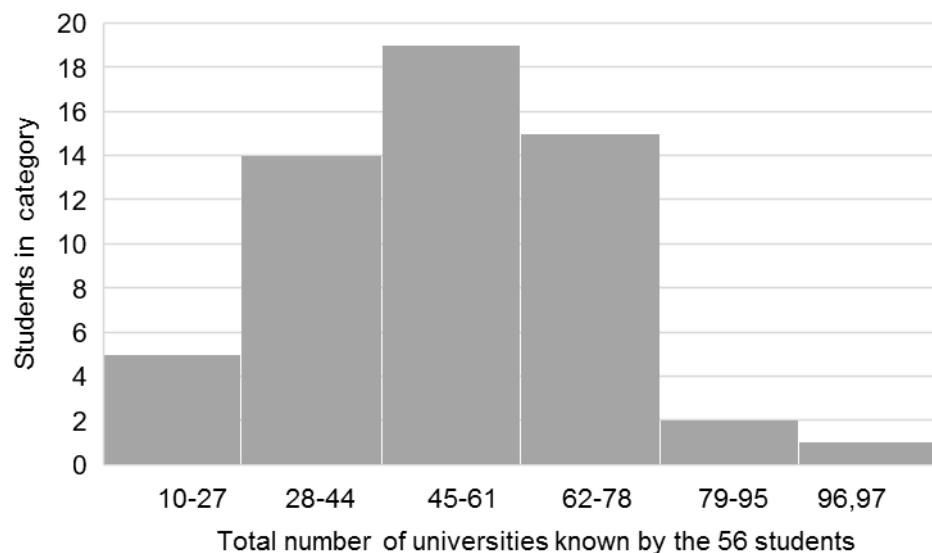
When the data was broken down by *type* of university, counting only the name cards for the 37 RG94-universities, the number that students had heard of ranged from 5 to 37 with a median score of 24 and an inter-quartile range of 15 (25th percentile at 17 and

75th percentile at 31). There were no statistical outliers. Presenting the data visually showed that many of the students recognised most of these universities (see Figure 5.2).

Figure 5.2 Frequency distribution for number of RG94-universities known.
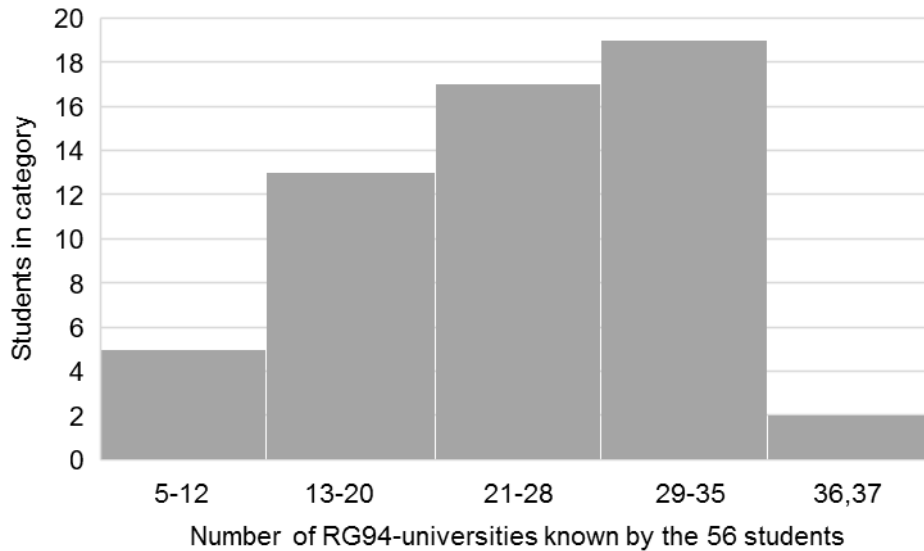
The frequency distribution for the RG94-universities indicated that this sub-group was recognised more often than other universities. Comparison of the percentage recognition rates confirmed this: 64.3% of the name-cards for RG94-universities were placed in categories 1, 2 or 3 (1333 from a total of 2072 cards), but only 36.9% of the name-cards for the remaining universities were placed in these categories (1612 from a total of 4369 cards). It appeared, therefore, that prestigious universities were much better recognised than universities in general. However, when the data was broken down by cohort, a more complex picture emerged.

5.1 (i) Cohort differences in the number and type of universities known.

Presenting the number of universities students knew by their cohort, suggested both within-group and between-group differences, and these appeared to be particularly evident in relation to the number of RG94-universities known (see Table 5.1 *overleaf*).

Table 5.1 Number of universities 'heard of' (RG94-universities in brackets).

	Newtown Vocational Centre		Greenfields BTEC group		Greenfields A Level group		Newtown A Level Centre		Borough Sixth Form		The Croft School	
Number of universities	10	(5)	29	(16)	27	(15)	29	(15)	39	(26)	42	(32)
	16	(8)	31	(12)	34	(17)	33	(13)	52	(22)	43	(31)
	17	(7)	48	(19)	34	(19)	39	(19)	57	(29)	48	(30)
	18	(6)	55	(23)	39	(17)	48	(22)	60	(29)	49	(31)
	39	(15)	61	(21)	39	(17)	53	(24)	61	(25)	50	(35)
	45	(15)	63	(23)	40	(21)	61	(24)	71	(33)	66	(35)
	50	(17)	72	(23)	53	(22)	65	(32)	75	(33)	70	(33)
	59	(22)	75	(26)	61	(28)	66	(30)	76	(37)	74	(35)
	60	(25)	77	(30)	66	(31)	97	(36)	81	(35)		
	69	(24)			67	(30)			87	(33)		
Range	60	(21)	49	(19)	41	(17)	69	(24)	49	(16)	33	(6)
Median	42	(15)	61	(23)	39.5	(20)	53	(24)	66	(31)	49.5	(32.5)

The range and median scores for the total number of universities known showed that every cohort had considerable variation, although those who knew very few universities were concentrated at the Newtown Vocational Centre. Knowledge of the RG94-universities appeared to show clearer differences between cohorts: thirteen of the school sixth formers (i.e. 72% of them) knew more than 80% of these universities, but only five of the college A level students (26%) had this level of knowledge, and only one of the nineteen BTEC students (5%).

The scores for the total number of universities heard of by the students were tested for trend across cohorts, from least traditional (Newtown Vocational Centre) to most traditional (The Croft), and the result was significant at $p < 0.05$ (using Jonckheere's trend test for large samples, $z = 2.02$). The scores were then tested for variation *within* cohorts, and none of the six analyses reached significance (using Kolmogorov-Smirnov one sample test for goodness of fit).

The analyses were then repeated using only the scores for the number of RG94-universities known. Testing for trend across cohorts produced a highly significant result with $p < 0.001$ ($z = 5.29$). Testing for within-cohort variability produced two results that were significant at $p < 0.01$ (Borough Sixth Form, $D = 0.5$, The Croft School, $D = 0.667$).

Interpreting these results in the context of the thesis, they indicate firstly that as the educational environment became more traditionally HE-oriented, students were likely to have heard of a greater number of universities. However, the behaviour of any

one student could not have been predicted by knowing the type of cohort they were a member of, because there was also considerable variation *within* cohorts. None of the six goodness of fit tests departed significantly from the anticipated distribution, because all cohorts had some who knew more, some who knew less.

When knowledge of the RG94-universities was compared, the trend across cohorts was very pronounced. The more traditionally HE-oriented the environment, the more RG94-universities were known. The goodness of fit tests showed that the number of prestigious universities that might be recognised by a college student could not be predicted because all four cohorts had some who knew many and some who knew few. If a student was in a sixth form cohort, however, they were likely to recognise a high number of RG94-universities.

5.1 (ii) Common themes amongst those who knew of few, or many, universities.

During this first card-sort task, many of the students made spontaneous comments that gave an early insight into their knowledge of the higher education sector and their probable strategy for finding universities. The task was followed by Question 1 (When did you first think you might go to university) which also elicited comments that could explain why they might know many, or few, universities. Two aspects of this qualitative data seemed particularly relevant to understanding differences at this basic level of knowledge: a) the stage at which university had first been considered, and b) a preference for either 'hot' or 'cold' reasoning.

Amongst those who had heard of very few universities, a relatively late decision to apply combined with an apparent reliance on information that came from family and friends was common. Christopher, whose recognition of ten universities made him the statistical outlier at the lower end of the distribution, had been so strongly influenced by the positive experience of a school friend that he made an immediate decision to apply to the same department, and did not research any other possibilities:

> "I knew when I came here to college, because my friend from high school got a scholarship to go to the School of Sound, and I went and saw everything and was amazed by the facilities…. I suppose other places could have had something to offer but I didn't check any out."
>
> (Christopher, Newtown Vocational Centre)

Jade, who placed 16 cards in the 'known' categories, was focused entirely on finding a nursing course that would be within daily travel distance. For her, UCAS was simply a means to an end, an acronym she became aware of only when she had to complete the application form, and her interview comments suggested that she, like Christopher, had been strongly influenced by friends:

> "I only came to college to get the university qualifications for nursing…you have to do that *(i.e. go to university)* now to train as a nurse. I was a bit in the dark about what to do, but I have two friends who've gone to local universities they say are good, so I typed in the names of those universities online."
>
> (Jade, Newtown Vocational Centre)

The other universities that Christopher and Jade had heard of included Oxford, Cambridge, Manchester, and other city universities that had high recognition rates overall. This appeared to support Christopher's statement that he had not looked for other possible universities. Jade stated clearly that she had never considered leaving home due to family responsibilities, and did not expect to have any involvement in university life beyond the requirements of her course. Researching universities beyond the two that had been suggested by friends may therefore have served no useful purpose for her, though Christopher's comment did acknowledge that he might have missed other opportunities.

At the opposite end of the number of universities 'heard of' was Andrew, whose recognition score of 97 universities made him the statistical outlier at the top of the distribution. Andrew was unusual in that because of a major change in his subject interests, he appeared to have carried out two sequential search processes, relying heavily on two sources of factual (i.e. 'cold') information:

> "I was always told I'd go to university. At first it was all about science…but that wasn't for me. Then my teacher suggested theology and philosophy so I began again. UCAS is not that helpful if it's the standard of university you are looking for, so I used league tables as well."
>
> (Andrew, Newtown A Level Centre)

Jake, who had heard of 87 universities, had started with the UCAS website to find every university offering the LLB degree qualification, the law course that grants some exemptions from professional training as a lawyer, and had then used a further source of cold data to refine his choices against personal criteria:

> "I always thought I'd go to university but someone I met at a friend's house suggested law when I was in year 10 or 11. UCAS Course Search was my first port of call, then the university websites…I eliminated any that didn't have good NSS (*National Student Survey)* ratings."
>
> (Jake, Borough Sixth Form)

It seemed that students who recognised a high number of universities had a strong preference for cold sources, often starting with UCAS Course Search. However, those students who said they had used league tables but made no reference to UCAS Course Search, often recognised a moderate number of universities overall, but a very high number of the RG94-universities. Alice had heard of 59 universities, which placed her close to the median, but she knew 29 of the 37 RG94-universities:

"I don't think I've ever **not** wanted to go. I thought it would be maths from about age 11, but in year 12 decided on economics. I started with the league tables so I could avoid any with low grades."

(Alice, Borough Sixth Form)

The nineteen students who knew more than 80% of the RG94-universities were linked by an aspect of their response to Question 1: thirteen said they had 'always known' they would go to university, and all but one had known before they made their GCSE choices.

As each interview progressed, and the students elaborated the strategies they had used to longlist and shortlist universities, it was apparent that many factors could influence the decision making process, but the stage at which university was considered, and a preference for either hot or cold information sources, were often consistent elements.

5.1 (iii) Recognition of individual universities.

The 115 universities were all recognised by at least one participant, but there was considerable variation in recognition, with some universities known to almost everyone and others recognised by only a few (see Table 5.2 *overleaf*).

Table 5.2 Frequency of recognition of the 115 universities.

Universities	Number of times 'heard of'
Cambridge*, Edinburgh* Leeds*, Liverpool*, Manchester* and Oxford*.	50-56
Birmingham*, Bristol*, Cardiff*, Exeter**, Glasgow*, King's College*, Leeds Metropolitan, Leicester**, Liverpool John Moores, London Metropolitan, Manchester Metropolitan, Nottingham*, Sheffield*, UCL* and York**.	40-49
Aberdeen, Bath**, Bolton, Brighton, Chester, Cumbria, Durham**, Essex**, Huddersfield, Hull, Imperial College*, Keele, Kent, Lancaster**, Newcastle*, Plymouth, Portsmouth, Reading**, Salford, Southampton*, Warwick* and Westminster.	30-39
Bangor, Birmingham City, Bournemouth, Bradford, Central Lancashire, Coventry, Derby, Dundee, East London, East Anglia**, Edge Hill, Gloucestershire, Greenwich, Kingston, Lincoln, Loughborough**, LSE*, Middlesex, Northampton, Nottingham Trent, Queen Mary**, Sheffield Hallam, St Andrews**, Staffordshire, Surrey**, Sussex**, Swansea, Thames Valley and University of the Arts.	20-29
Aberystwyth, Anglia Ruskin, Bath Spa, Bedfordshire, Brunel, Buckinghamshire New, Canterbury Christchurch, Chichester, City, De Montfort, Glamorgan, Goldsmiths College**, Hertfordshire, London South Bank, Northumbria, Oxford Brookes, Queen's Belfast*, Roehampton, Royal Holloway**, SOAS**, Stirling, Sunderland, Teesside, University for the Creative Arts, UWIC Cardiff, West of England, Winchester, Worcester.	10-19
Abertay Dundee, Aston, Edinburgh Napier, Glasgow Caledonian, Heriot-Watt, Liverpool Hope, Robert Gordon, Southampton Solent, Strathclyde, Swansea Metropolitan, Ulster, University of Wales Newport, West of Scotland, Wolverhampton and York St John.	1-9

(Note: universities presented in alphabetical order within each frequency category; *indicates a member of the Russell Group; ** indicates a member of the 1994 Group.)

The top of the table was dominated by city universities, mostly in the Russell Group, and some of the large 'metropolitan' universities, particularly those in the north, which were relatively local to four of the six cohorts. The only university recognised by every single participant was Manchester, probably due to four of the cohorts being in northern

colleges. Oxford and Cambridge (with 55 and 54 recognitions respectively) took second and third place. Given their global reputation It was surprising that any English UCAS applicant could be unaware of these universities, but a possible explanation lies in the use of the term Oxbridge. The three students who placed either Oxford or Cambridge in Category 4, (I have not heard of this university before) were all students at Newtown, where use of the term 'Oxbridge' by staff may, for some, have obscured the identity of the two separate institutions. Samuel gave the impression he thought it was a single university:

> "Performance in league tables could be important but I didn't check it out.
> If you were applying to somewhere prestigious, like Oxbridge for example,
> you'd want to check it out to see if other universities were similar to it."
>
> (Samuel, Newtown Vocational Centre)

City universities (e.g. Liverpool or London Metropolitan) tended to be better known than those named for a county or region (e.g. Essex or Central Lancashire). Having a name that conveyed no information about location (e.g. De Montfort or SOAS) was often associated with poor recognition, though University College London was well recognised even though it typically uses the acronym UCL. Many of the well-known Russell Group universities had the double advantage of a city name and a strong reputation. Having a prestigious city name as part of a university title was not a guarantee of high levels of recognition amongst the students, for example, London South Bank and Oxford Brookes were not well known, despite having names that include cities widely recognised as centres of higher education. Reputation could have a positive impact on recognition, even without the advantage of a city name (e.g. King's College). Scottish and Welsh universities were often poorly recognised, unless they happened to be in the Russell Group.

Whilst a city name might have contributed to a university being well-known, it was clear from observing the card-sorting behaviour that the existence of *more than one* university in many large cities sometimes resulted in confusion for some students. Elizabeth had originally placed the Manchester name card in her Category 1 pile (I applied to this university) but when she reached the Manchester Metropolitan card she paused and asked:

> "Is there more than one university in Manchester? This one, *(Manchester Metropolitan)* is the one that I've applied to, I didn't know there were *two* in Manchester."
>
> (Elizabeth, Newtown A Level Centre)

Elizabeth then moved her Manchester University card to the 'considered' pile and placed her Manchester Metropolitan card in the 'applied' pile. After completing the task she referred again to her confusion about the Manchester universities. It seemed that

whilst she was aware of the names Manchester and Manchester Metropolitan, she hadn't fully realised that the names referred to two separate institutions. This error was perhaps reinforced by the fact that a UCAS Course Search filtered by Manchester, would have returned a title and code for her chosen subject only at Manchester Metropolitan: for many subjects, a search would immediately indicate to applicants that there was a choice to be made between the two universities. Awareness that many cities *did* have two universities sometimes conveyed only partial information, however:

> "I want to be in a city and I really like Sheffield, Liverpool and Leeds… but I wouldn't have looked at Nottingham because it's out on a campus."
> (David, Greenfields BTEC group)

David was interested in the post-92 universities and knew that in addition to Sheffield, Liverpool and Leeds, the cities had Hallam, John Moores and the Metropolitan, but he was not aware of Nottingham Trent, which might also have met his search criteria.

5.1 (iv) Universities that were known by every student within a cohort.

When the card-sort data was broken down by cohort, it appeared that each group of students had common knowledge of some universities. Identifying just those universities that were known to *every* member of a cohort produced a data set that suggested there may have been an element of 'shared knowledge' within each group, and these varied by number and type (see Table 5.3 *overleaf*).

Table 5.3 Universities known by entire cohort (RG94-universities in brackets).

Cohorts	Universities	Number 'heard of'
Newtown Vocational Centre	Bolton, Central Lancashire, Manchester* and Salford.	4 (1)
Greenfields BTEC group	Birmingham*, Cambridge*, Leeds*, Leeds Metropolitan, Liverpool John Moores, Manchester*, Nottingham*, Oxford*, Salford and Sheffield*.	10 (7)
Greenfields A level group	Cambridge*, Edinburgh*, Leeds*, Leeds Metropolitan, Liverpool*, Liverpool John Moores, Manchester* Manchester Metropolitan and Oxford*.	9 (6)
Newtown A Level Centre	Bolton, Leeds*, Leeds Metropolitan, Liverpool John Moores, Manchester* Manchester Metropolitan, Oxford*, Salford and Sheffield*.	9 (4)
Borough Sixth Form	Birmingham*, Bristol*, Cambridge*, East London, Edinburgh*, Imperial College**, King's College**, Leicester**, LSE*, Manchester*, Middlesex, Oxford*, Queen Mary**, UCL*, Warwick* and York**.	16 (14)
The Croft School	Bath**, Birmingham* Brighton, Bristol*, Cambridge*, Cardiff*, Durham**, Exeter**, Imperial College*, King's College*, Liverpool*, LSE*, Manchester*, Newcastle*, Nottingham*, Oxford*, Oxford Brookes, St Andrews**, Sheffield*, UCL*, Warwick* and York**.	22 (20)

One of the most striking features of this data was the very low number of universities known by the entire cohort at Newtown Vocational Centre. However, this was largely a consequence of the cohort containing all four students who had heard of fewer than 20 universities: the remaining six students had common knowledge of nine universities, which would have made them comparable to the other college cohorts.

In all four of the northern cohorts, shared knowledge was focused heavily on northern universities: Leeds, Leeds Metropolitan, Liverpool John Moores, Manchester, Oxford and Salford all appeared three or four times, and only 15 different universities featured in the shared knowledge lists of all four cohorts. Apart from Oxford and Cambridge, the only universities not in the north of England were Birmingham, Edinburgh, and Nottingham.

The two sixth form cohorts had the highest number of universities known to everyone in the group. The London-based cohort all knew five colleges of the University of London, in addition to East London and Middlesex, but there were also

nine universities outside London in the shared knowledge, indicating less emphasis on local universities than at the colleges. At The Croft the concept of 'local' was not really relevant, as most of the students were boarders. However, both sixth form cohorts had shared knowledge that was very heavily focussed on the RG94-universities, and the eleven universities that were recognised by all of the sixth formers were entirely from this prestigious subgroup. At Borough, only the local universities of East London and Middlesex were not members of either group. At The Croft, where Brighton and Oxford Brookes were the only universities not in the RG94-universities, the explanation possibly lay in their high league table positions for architecture, which would have ensured that both of these universities appeared in some of the personalised lists of suggested universities provided for every student at the school.

The sixth formers' greater awareness of prestigious universities was evident from an early stage in many of the interviews, particularly at The Croft, where every participant referred to the 'list' provided as a starting point for their research. Informed by league table positions and destinations of previous students, and tailored to the subject interest and academic performance of the applicant, the 'list' steered the students towards the RG94-universities. At Borough Sixth Form there were no personalised lists, but several students spoke of being 'guided' towards *suitable* universities by the careers staff (i.e. towards the most prestigious universities for which they would meet the grades).

College students often spoke of individual staff suggesting a possible university or a course, but comments suggesting they had been guided towards certain *types* of university were very rarely made. As the interviews progressed it became apparent that college students often had little understanding of the hierarchy that exists amongst UK universities, a theme that is developed in the following chapters as this lack of understanding began to have an impact on their longlisting, shortlisting and the outcome of their UCAS application.

5.2 The purpose of university: subjects, jobs and careers.

The card-sort tasks and interview questions focussed on exploring how the students had found possible universities, created a longlist and shortlist, and finally chosen a firm and insurance university with UCAS. None of the research questions asked about the broad purpose of university, because this was outside the scope of the project. However, when the qualitative data was analysed it became clear that there were sufficient comments that referred to the purpose of university for this to emerge as a category encompassing three main codes: to study the subject; to get a 'good' job;

to follow a career plan. These comments often provided insight into students' generic knowledge and understanding of the university sector, and are considered here.

5.2 (i) Purpose of university: to study the subject.

There were five students who spoke of a decision based primarily on a desire to study a favourite subject idea, but a belief that subject interest *alone* might be sufficient justification for going to university with no consideration of what the degree might lead to was rare, and the only two students who came close to expressing this view were Hannah and Benjamin, who both enthused about their subject but said nothing about future plans:

> "There is a politics and philosophy element on the BTEC, but no one at all has influenced me to choose that at university. There are lots of examples of topics on my course that link to the degree content *(he then listed several of these with evident enthusiasm)*."
>
> (Benjamin, Newtown Vocational Centre)

> "In year 9 I thought it would be history at university so that was a long-standing desire, and then when I started Italian at college I decided to add that. I was looking for specific things in the history degree and it was hard to find some of them *(she then listed several topics she regarded as essential)."*
>
> (Hannah, Greenfields A level group)

The remaining three students all expressed some concern that following a favourite subject might not offer good career prospects, but they were all considering subjects where common knowledge might suggest that job opportunities would be sparse:

> "Mum encouraged me to do drama…I did have doubts when I started at college because it's not a secure job…but there were no other subjects I really wanted to do."
>
> (Georgia, Newtown A Level Centre)

> "When I decided to do music I thought about whether there are career pathways from that…teaching would be a possible choice."
>
> (Samantha, Borough Sixth Form)

> "Even at school I knew that you can't just get a job if you do art…but ten years down the line I see myself as an art teacher."
>
> (Elizabeth, Newtown A Level Centre)

Neither Samantha nor Elizabeth made any comment to suggest that teaching would be a career choice if they had other options available to them.

5.2 (ii) Purpose of university: to get a 'good' job.

Most of the students seemed to believe that the enhanced prospects assumed to be available to graduates would be instrumental in the future, but comments sometimes expressed nothing more than a vague notion that graduates get better jobs. Amongst the less-informed were Matthew and Olivia, neither of whom articulated any specific career plans:

> "Even at school I knew that I wanted to go to university…I see it as a way into a profession."
>
> > (Matthew, Greenfields A level group)

> "I wasn't picked for the Aimhigher course in year 9 so I thought I'd go to university and prove them wrong…I want to get a good job."
>
> > (Olivia, Newtown A Level Centre)

Others appeared to believe that some degree subjects would be more useful than others, but did not refer to any research that could have confirmed advice that appeared to be based on 'hot' and possibly ill-informed suggestions. Joseph's father had specifically advised against following his own career path:

> "My Dad did an apprenticeship and has quite a good job as an engineer, but you can't do that now. He wants me to work with my brain, not my hands…and he's happy with me choosing history."
>
> > (Joseph, Borough Sixth Form)

Joshua's desire to accommodate family views about what might lead to a 'good' job seemed to have resulted in an uneasy compromise, but he gave no indication of any research to investigate job prospects in either of the proposed subject areas:

> "I really like sport but a family member said it's not easy to get a job. My Mum was not too keen on the sport side and prefers media because there are more jobs…so I applied for both."
>
> > (Joshua, Greenfields BTEC group)

Most students seemed to view university as an essential next step, without considering whether a degree was necessary. Some gave examples of career plans that may not have required a degree:

> "I really liked the marketing units in the BTEC, and my part-time jobs have all been in retail…shoes and clothes. I've enjoyed that so it encouraged me to apply to university. I might open my own business even."
>
> > (Sophie, Greenfields BTEC group)

Many students who spoke of a degree leading to a 'good' job appeared to be basing this assumption on a general belief that graduates enjoy a salary premium without having checked any relevant facts. There were no references, for example, to the Unistats data on graduate destinations and average salaries, despite this information being available on the UCAS website. However, some of those prioritising reputation

and status did express the view that employers may regard some subjects or some universities more highly than others:

> "I'm concerned about how employers see all of the universities…but particularly by how they see Sheffield."
>
> (Kirsty, The Croft)

Only one student said that a degree was *not* an essential part of his career plans. Alexander had applied for deferred entry because he had been offered a six-month coaching placement immediately after college:

> "My tutor said I'd better apply *(to university)* just in case, but I'm not sure I want to go. I'm already a lifeguard and gym instructor and I could do that when I get back from the coaching instead of university…they haven't said anything about wanting a degree."
>
> (Alexander, Newtown Vocational Centre)

Alexander was the only student who seemed to feel that university would not improve his prospects in the labour market, but he said nothing to suggest that he had considered any employment options other than converting his current part-time work at the gym to a full-time role.

5.2 (iii) Purpose of university: to follow a career plan.

Those who claimed to be following a career plan could be divided into two categories: 1) those who intended to follow a vocational course, such as nursing or teaching, that would include a professional qualification giving them a 'licence to practise', and 2) those who were looking for course titles that *sounded* vocational, but did not realise that this would not fully qualify them for entry to a profession.

Those students who were seeking a licence to practise varied in their knowledge of what was required to enter the course and what might be delivered by the profession. For some, the university application appeared to be simply a form to be completed:

> "I only realised on 14th January that the form had to be done so I did it at college with a friend and we encouraged each other. It was quite tricky…and the internet went down."
>
> (Katie, Newtown Vocational Centre)

Others appeared to have chosen a vocational degree with little or no experience to support their application or provide an understanding of the job they hoped it would lead to:

> "I want to teach, but I've never had any jobs that involve working with children, and I realised quite late that I would need relevant experience before I could even be accepted at university."
>
> (Rebecca, Greenfields A level group)

> "I didn't really want to do sociology or politics and when my girlfriend suggested social work I thought it was a good thing to focus on."
>
> (James, Greenfields A level group)

Courses that offer a 'licence to practise' are often linked to public sector employment for which current salary scales are publicly available. Such students could therefore gain current information on the likely financial return on their investment. Chloe was the only student who said she had used these:

> "My teacher told me that if I apply for nursing the NHS pay the fees so not to worry about costs…but actually I'd still borrow if I had to because I looked at the salary and the bands, and paying it back is not too bad if you're earning £18 thousand or so."
>
> (Chloe, Greenfields BTEC group)

Chloe's research may have been motivated by a desire to persuade, since her mother apparently felt that a desire to work in a nursing role could be met by taking NVQ whilst working in a local care home, as she had done herself. Laura also referred to salary expectations, but in a way that suggested she had been only partially informed:

> "My work experience was in a nursery, which I liked, but it's a minimum wage job and you can't live off it. Then I made an appointment with Choices *(a Connexions initiative)* to ask about something similar, and they told me about childhood studies courses and said it could lead to teaching or social work."
>
> (Laura, Greenfields BTEC group)

Laura did not appear to have seen any information on employment destinations of childhood studies graduates, but Unistats for her chosen courses would have shown her that a small minority of graduates entered managerial or professional roles and that typical starting salaries were only a little higher than the minimum wage. She also gave no indication that she had researched the feasibility of completing a second qualification to become a teacher or social worker.

Students with a career plan that did not require a course offering a 'licence to practise' did not always seem to recognise that vocational-sounding degrees are often just a first step on the career ladder, and employers might require further, post-degree study to acquire professional qualifications. Daniel and Amy were typical:

> "I liked the accounting units on the BTEC, and accountants are always needed by business. There's been a slump recently but things might improve, and I've applied for Accounting and Finance sandwich courses so I'll have experience as well as the qualification."
>
> (Daniel, Greenfields BTEC group)

> "I actually applied last year to do criminology and sociology because I've really got in to that at college, but I didn't get the grades so I came back to college. With the recession and stuff, my sister said do something more useful career-wise this year, and her brother-in-law talked to me about human resources so I decided to go for that."
>
> <div align="right">(Amy, Greenfields BTEC group)</div>

Occasionally a student demonstrated greater awareness of career routes and employer expectations, and this was usually attributed to direct intervention of some form. Danielle had discovered at her work experience placement that a degree in accounting was not the only route to becoming an accountant, and that alternative degrees might even be preferred by some employers:

> "I'd always liked the idea of accountancy, but my work experience was a very important factor for me…staff at Barclays encouraged me to take economics for a career in accountancy."
>
> <div align="right">(Danielle, Borough Sixth Form)</div>

One advantage of a vocational degree that does not include a 'licence to practise' is the greater flexibility it may offer to a graduate who changes their mind, but there was only one student who made any reference to a degree outcome that is often promoted by universities themselves: the acquisition of transferrable skills. Adam, despite having a long-standing career aim, felt that his chosen degree would be valuable even if he changed his career plans:

> "I've chosen criminology and psychology because I want to become a policeman, but also it's a degree that will give me good generic skills if I decide that I don't want the police."
>
> <div align="right">(Adam, Newtown Vocational Centre)</div>

Adam appeared to have an unusually high degree of understanding amongst the BTEC students, possibly explained by a later comment that his father was a careers adviser.

5.2 (iv) References to ecosystems and reasoning styles.

Students often referenced family and friends when describing reasons for university, suggesting that the micro- and sometimes the mesosystem influenced these decisions. There were very few examples of a parent directly suggesting a specific career path, and no student said they had followed this advice. Sophie, who had applied for marketing management, said that her mother would have preferred nursing or teaching. Jack's parents had suggested dentistry, which didn't appeal to him, and Holly's mother had suggested that she was 'more than a nurse', and should have been aiming for medicine. However, if a suggestion came from a family member of the same generation as the student it could be influential: Amy's brother-in-law had steered her towards human resources and James said his fiancé had suggested social work. This

may have been due to the increased likelihood of a same-generation adviser having personal experience of university, but parents with experience of university were not always influential: Eleanor had rejected her father's wishes that she follow his example by choosing medicine, and Benjamin dismissed his mother's advice that her own career, teaching, would also suit him.

Comments suggested that a greater potential for influence lay in the meso- and exosystems that could link a student to those who had knowledge of the subject and career options they had independently chosen. The school environment and the IAG programme offered to applicants did, in all six cohorts, make some links between the school or college, universities, and professional organisations. However, interview comments concerned with career or employment prospects suggested a clear difference between the state and the independent sector students in relation to policy and resources. Every participant at The Croft spoke about the personal guidance tutor assigned to them at the end of year 10, and the subject mentor they were linked with once their subject choice was made. Several also referred to the member of staff with lead responsibility for UCAS applicants in their subject area:

> "Mr A oversees all medicine applicants…and makes sure we are working with our subject mentor to build up the right extra-curricular activities."
>
> (Melissa, The Croft)

Scheduled careers activities, often involving professional bodies, were also referenced, often at some length. Louisa described how two periods of work experience convinced her that architecture would have been the wrong choice, and went on to explain how she decided on engineering:

> "I had thought architecture at one stage but I did work experience for two years and it bombed…I didn't like it…it was tedious and more about admin than design. I tried a big company and a small company and I didn't like either. There was not enough 'attachment' to the building. After I decided against architecture I was advised by the school to take part in the Engineering Education Scheme because of my subject interests (maths, further maths, physics and art). It was quite fun…I realised what engineering could do…and it made me research more. I spoke to both of the scheme teachers and my guidance tutor and they said the same things, such as engineering courses are not keen on gap years. And they found out some things for me, for example, Bristol teaches some of the course with other classes… and it has a 98% chance of employment after the work experience. I'm applying for general as I don't know enough yet to specialise, but I think I want electronic…unless it turns out I'm poor at the computer elements."
>
> (Louisa, The Croft)

Louisa's description was entirely in keeping with the extensive and comprehensive IAG programme at the school, which offered careers sessions and UCAS sessions alongside the GCSE and A level curriculum, including evening and weekend activities.

Published information at Newtown, Greenfields and Borough indicated that careers information was available from guidance staff and that careers talks were scheduled but, whilst many students mentioned the 'UCAS talk or assembly' (which told them how to apply), very few students referred to having attended anything that sounded like a 'careers' talk. In the Greenfields BTEC cohort, Laura and Chloe both mentioned a talk about child nursing, but the session was delivered by a nursing studies tutor from Keele, rather than a professional body representative, so may have had an institutional rather than generic focus. At Borough Sixth Form there was one participant who said she had attended a subject talk on Law, but again this was given by a provider, BPP (Brierly Price Prior University), which specialises in offering degrees and professional qualifications in a range of business subjects.

None of the state sector students referred to specialist staff with roles that mirrored the personal guidance tutors, subject mentors or UCAS subject leads routinely mentioned at The Croft. They spoke instead of personal tutors, who had a wide-ranging academic and pastoral role in relation to their tutees, and subject teachers. Those who said they had also consulted members of the guidance team did so in a way that suggested they had done this proactively, (e.g. 'I went to ask careers staff for suggestions' or 'I made an appointment with careers') and not because of timetabled sessions.

The impact of low levels of specialist advice in the state sector provision was starkly illustrated by Natasha's experience when a staff change resulted in her having a tutor who understood her subject:

> "I started drafting my personal statement last year, but my tutor didn't know about drama so was not that helpful. This year my drama teacher is also my personal tutor, so she was able to suggest some places. And with my personal statement she advised me to describe things *(I have already done)* that make it obvious I'm good – not just to say I'm good."
>   (Natasha, Newtown A Level Centre)

Most students, whether in the independent or state sector, referred to input from more than one member of staff, but whilst students at The Croft spoke about their specialist advisers as if they were a *team* giving consistent advice that could be relied upon, state sector students often gave the impression that teachers, tutors and guidance staff were not communicating, sometimes giving conflicting, ill-informed, or even incorrect advice. Poor advice had sometimes been recognised as such and ignored, but had sometimes been accepted and followed.

The clear differences in the IAG provision offered appeared to be linked to the style of reasoning applied by the students when describing their plans and expectations for the future. Cold reasoning, based on facts and evidence, could only be used if the

student had sufficient knowledge relevant to their choices. Only at The Croft was there any clear evidence of career decisions being evidence-based. In the state sector cohorts, it was common for students to talk about 'wanting to do or be something' but offering little or no information to suggest they had checked whether their current decisions would lead to the desired outcome.

5.3 Summary.

The findings indicated that the *factual* answer to the first part of Research Question 1 (Which UK universities had the students heard of?) was that both the number and type of universities recognised varied considerably, with knowledge of the RG94-universities increasing as the educational environment became more traditionally HE-oriented. The factual answer to the second part of the question (What factors influenced their knowledge?) was that characteristics of both environment *and* applicant were influential. If the home environment had produced an *expectation* of university, students were likely to have used cold sources of information. If they began with UCAS Course Search they usually recognised a high number. If they began with league tables they usually recognised a moderate number, but this included many of the RG94-universities. League tables were frequently referenced by sixth formers, who were also influenced by the HE-orientation of the school environment. Where the home environment had *not* produced an expectation of university, resulting in a late decision to apply, students often recognised very few universities. Such students were also likely to have placed an emphasis on hot reasoning from sources close to them.

Although the interview questions had not asked students *why* they were applying to university, most made some reference to this, and the emergent coding category of 'purpose of university' revealed many examples of poor understanding of the actual relationship between degrees and career opportunities. When comments that referenced the role of school or college in understanding careers were considered in more detail, there was a clear separation between the experiences of the independently educated students and those of the state sector students. At The Croft, there were many examples of integrated career and UCAS planning as part of the IAG programme that appeared to have provided a strong and relevant knowledge structure; state sector students rarely mentioned any activity that was focussed on careers. Some students referred to familial encouragement to follow a certain career path, though they did not necessarily act upon the advice.

Chapter 6: Sources of information used to research universities.

Introduction.

This chapter presents evidence that is pertinent to Research Question 2 (What sources of information had the students used, and how did they value these sources?). It begins by drawing on the quantitative data provided by card-sort Task 2, in which students identified the sources of information or communication they had used to find out about each of their UCAS choice universities. The card-sort data is analysed by sample and cohort, using descriptive and inferential statistics to explore the number and type of sources used.

In the second section of the chapter, qualitative data recorded in response to Interview Question 2 and its sub-questions is used to show how the students described the way they had set about finding possible universities. Where the card-sort had referred only to the universities that had been shortlisted, and had simply identified whether an item had been *used*, this qualitative data encompassed every university a student had considered, and often demonstrated whether a source had been *valued.* Students' responses therefore began to provide a more nuanced view of their perception and understanding of the university sector, and offered a greater insight into the role taken by family, friends and staff as providers of information. The comments are presented under seven sub-headings that reflect the pattern of usage shown in the card-sort data.

The chapter ends by returning to a consideration of the potential of information, advice and guidance provision to influence the sources used. At The Croft, where the cohort were found to be the highest users of 14 of the 23 items on the cards, every student also referred to the one-to-one sessions with their guidance tutor in ways that suggested these two factors may be linked.

6.1 Information sources used to research the shortlisted universities.

6.1 (i) The number and type of information sources used.

There were 1649 source cards sorted against the 250 universities included in the UCAS applications. Of these,1639 were selected from the cards on the tray, and 10 were written by students who had used an additional source. The number of cards assigned to a university ranged from 1 to 14, with a median of 6 and a semi-interquartile range of 6 (25th percentile at 4 and 75th percentile at 9). Visual presentation of the 250 scores showed that using twelve or more sources of information for a university was unusual, and using only one source was rare (see Figure 6.1 *overleaf*).

Figure 6.1 Number of source cards selected for 250 shortlisted universities.
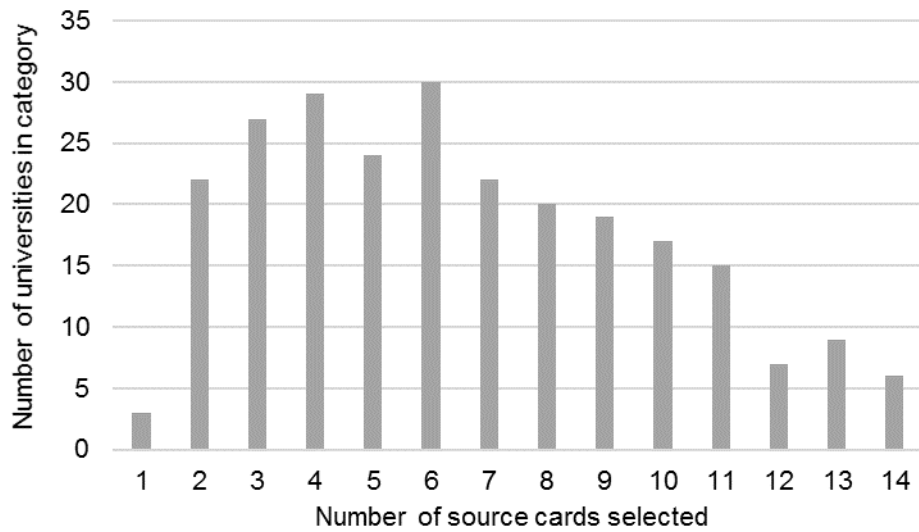
Because the card-sort had produced a score for each of the universities a student had shortlisted, the *total* number of sources used was deceptively low if they had applied to fewer than five universities. To enable meaningful comparisons across cohorts, a median score was calculated for each student. This was supplemented by range scores to show how consistently a participant had researched their choices: a low range indicated a similar number of cards had been selected for each university, a high range score indicated that at least one university had been assigned many more (or fewer) cards than the others (see Table 6.1).

Table 6.1 Median number of sources used (range scores in brackets).

	Newtown Vocational Centre		Greenfields BTEC group		Greenfields A Level group		Newtown A Level Centre		Borough Sixth Form		The Croft School	
Sources used per student	2.0	(2)	3.5	(3)	3.0	(2)	2.0	(3)	2.0	(2)	8.0	(6)
	3.0	(5)	3.5	(5)	3.0	(3)	5.0	(5)	2.5	(3)	8.0	(6)
	4.0	(4)	4.0	(6)	3.0	(5)	6.0	(5)	3.0	(3)	9.0	(5)
	4.0	(5)	4.0	(5)	4.0	(4)	7.0	(5)	6.0	(4)	11.0	(6)
	5.0	(1)	4.0	(8)	4.5	(6)	7.0	(9)	6.0	(5)	11.0	(6)
	5.0	(3)	5.5	(3)	5.0	(6)	8.5	(4)	6.0	(2)	11.0	(6)
	5.5	(5)	6.0	(4)	6.0	(8)	9.0	(9)	8.0	(5)	12.0	(7)
	6.0	(9)	6.5	(4)	9.0	(4)	9.0	(3)	11.0	(7)	12.0	(8)
	8.0	(1)	7.0	(4)	10.0	(5)	9.0	(4)	11.0	(7)		
	8.5	(4)			10.0	(6)			12.0	(4)		
Lowest*	1		2		2		2		1		5	
Highest*	13		10		12		14		14		14	

*Note: *lowest/highest number of sources assigned to any university within cohort.*

At cohort level the data showed that whilst the highest number of cards selected for any university was similar across all cohorts, reaching double figures in every case, choosing just one or two cards for at least one university occurred in all five of the state sector cohorts, but never at The Croft, where the lowest score was five.

Testing these scores for trend across cohorts, from least traditional (Newtown Vocational Centre) to most traditional (The Croft), produced a result that was significant at $p<0.01$ (using Jonckheere's trend test for large samples, $z = 3.06$). Testing for variation within cohorts produced a result for The Croft cohort that was significant at $p<0.05$ (using Kolmogorov-Smirnov one sample test for goodness of fit, $D = 0.458$). Testing for goodness of fit for the other five cohorts did not produce any significant results.

Interpreting these results in the context of this thesis, the significant result of the trend test indicated a tendency for a greater number of sources to be used as the school or college environment became more traditionally HE-oriented. However, the behaviour of any state sector student could not have been predicted by knowing which cohort they were a member of, because all five of the state sector groups had considerable variation *within* cohorts and none departed significantly from the anticipated distribution in the goodness of fit test. The situation was rather different at the independent school, where the median scores were all gathered at the high end of the overall distribution, and the significant Kolmogorov-Smirnoff result showed that the data was not representative of the whole sample. Students at The Croft appeared to be operating within different parameters of what determined an acceptable number of sources to have used.

The use of only one or two sources for a university was sometimes indicative of very limited overall research. Joseph's only active research was to pick up a prospectus for each of his five universities, and he made a point of saying that he had not yet visited any of them. Alexander selected only five cards, assigning just one or two to each of the three universities he had shortlisted, and had not made any use of common sources of information such as prospectuses or websites. Alexander was the only student with a deferred place (because of a six-month placement in the USA) and said he was undecided about whether he would go to university on his return. More commonly, the use of only one or two sources indicated that a university might have been included as a 'line filler' and was not being seriously considered as a destination. Natasha had looked at league tables and the website for the one university on her UCAS form that was not in the RG94-universities, but the remaining four prestigious universities were assigned six or seven cards each. This differential approach to research was expressed directly by Charlotte:

"Now that I can see these cards laid out, it's really obvious that I only researched properly the two universities I always wanted to go to."

(Charlotte, Greenfields A level group).

To put this in context, the universities that Charlotte had *not* researched 'properly' all had four or five source cards, far more than the one or two that Alexander and Joseph had regarded as satisfactory. It seemed that, at least amongst the state sector students, there was no common understanding of what might constitute an adequate amount of research. This did not appear to be the case at The Croft, where the lowest score of five cards occurred only once, and 60% of all the universities were assigned a selection of cards that reached double figures.

6.1 (ii) The type of sources used.

The maximum possible number of times any source of IAG could be used was 250, (the number of shortlisted universities). Every source was used at least once, but there was considerable variation. University websites were the most popular, having been used for 220 of the universities (88% usage). At the other extreme was Twitter, which had been used only once (0.4% usage). Percentage usage declined quite sharply below the first three items (see Table 6.2 *overleaf*).

Table 6.2 Usage of the 23 sources of information and communication.

Rank	Source	Times used	% usage
1	I have looked at the website of this university.	220	88.0
2	I have looked at this university on UCAS Course Search.	184	73.6
3	I have looked at a prospectus for this university.	181	72.4
4=	I have been to an Open Day at this university.	121	48.4
4=	I have looked at a course leaflet for this university.	121	48.4
6	I have checked this university in on-line League Tables.	117	46.8
7	I know someone who has studied at this university.	92	36.8
8	I have had an email from this university.	86	34.4
9	I have had a postcard, leaflet or similar from this university.	64	25.6
10	I've talked with staff who teach on the course I like here.	62	24.8
11	I have checked this university in printed League Tables.	58	23.2
12	One of my friends suggested this university.	55	22.0
13	I have met someone from this university at a HE Fair.	50	20.0
14	One of my staff suggested this university.	46	18.4
15	One of my parents suggested this university.	41	16.4
16=	I have sent an email to this university.	31	12.4
16=	Someone from this university visited my school/college.	31	12.4
18	I have made a telephone call to this university.	26	10.4
19	I have accessed an applicant portal for this university.	23	9.2
20	I have seen something about this university on YouTube.	19	7.6
21	I have joined a Facebook group for this university.	6	2.4
22	I have had a telephone call from this university.	4	1.6
23	I am following this university on Twitter.	1	0.4

The top three sources, university websites and prospectuses and UCAS Course Search, were used much more frequently than other items, with 54 of the 56 students using at least one of these for every university, and eighteen students using all three for all five universities.

Whilst the top three items were used by almost three quarters of the students, the next three items were used by less than half, confirming the dominance of websites, prospectuses and UCAS in the application process. Open day attendance at 48.4% was the highest rated source that would offer the potential for some interaction between applicant and university, but the behaviour of individual students suggested some polarisation: nineteen (35%) had attended all or all but one, and twenty (36%) had attended one or none. Usage of course leaflets placed them equal fourth, and behaviour also appeared to be polarised to some extent: 22 students (39%) had seen them for all, or all but one, of their universities whilst 24 (43%) had seen them for one or none. Since open days provide an easy way to collect course leaflets and the overall usage of these two items was exactly the same, the data for these two sources was

compared, but did not reveal any pattern: some who attended open days also had the leaflets, others did not, and vice versa.

Ranked sixth were on-line league tables, which were used twice as frequently as printed versions, and the pattern of usage for both types of league table showed that usage was highly polarised; 25 (45%) had not used them at all, and 24 (43%) had used them for all of their universities. The remaining seven students had all used league tables for just one or two of their universities.

Whilst the first six items were all sources of information that could be proactively accessed by any applicant, many of the items lower on the list were dependent to some extent on the actions of universities or schools: for example, a university sending a visitor to a school (12.4% usage) would not have been determined by the student. This will have set an upper limit on the usage ratings for some items. Some of the lower-ranked items could have been unsolicited, therefore raising the usage rate: for example, receiving an email or postcard could have been entirely due to a university marketing department buying a mailing list from UCAS, therefore would not represent any proactive research on the part of the participant. However, the same *item* could be linked to either active *or* passive behaviour: for example, receiving an email could have been triggered by a student first *sending* an email. The numerical data for many of these items can therefore best be understood in light of the interview comments, which often clarified the degree of activity or passivity that underpinned the card-sort data.

The final four items in the table include all of the social media, which many students said they regarded with some suspicion. Applicant portal usage was also in the final four but, at the time of the field work, many universities did not offer such a service, and interview comments from students who *did* have the opportunity to access information via a portal were positive about the sense of engagement this could provide.

Overall, the rank order of the 23 items indicated very high usage for the three information sources that would be most easily accessible to any prospective student, and moderate usage of a range of items that had the potential to offer advice and guidance at an individual level but might only be accessible with a degree of effort or engagement.

6.1 (iii) Cohort effects in the sources used.

When the data was broken down by cohort, a more nuanced picture emerged. Percentage usage for each item at cohort level showed some similarities in behaviour, but also some wide variations in the extent of usage for some sources (see table 6.3 *overleaf*).

Table 6.3 Percentage usage of sources by cohort, and cross-cohort range.

Source of information or communication	Newtown Vocational Centre	Greenfields BTEC group	Greenfields A Level group	Newtown A Level Centre	Borough Sixth Form	The Croft School	Cross-Cohort Range
I have looked at the website of this university.	77.1	72.9	97.9	95.1	81.6	97.5	26.0
I have looked at this university on UCAS Course Search.	88.6	70.3	66.7	80.5	79.6	55.0	34.6
I have looked at a prospectus for this university.	48.6	70.3	58.3	70.7	85.7	95.0	47.4
I have been to an Open Day at this university.	51.4	29.7	43.8	53.7	38.8	72.5	43.8
I have looked at a course leaflet for this university.	31.4	37.8	43.8	48.8	38.8	87.5	57.1
I have checked this university in on-line League Tables.	17.1	16.2	31.3	53.7	61.2	95.0	79.8
I know someone who has studied at this university.	28.6	59.4	20.8	26.8	40.8	45.0	39.6
I have had an email from this university.	8.6	19.3	29.2	34.1	36.7	62.5	54.9
I have had a postcard, leaflet or similar from this university.	28.6	8.8	16.7	31.7	34.7	25.0	26.9
I have talked with staff who teach on the course I like here.	8.6	8.1	29.2	34.1	24.5	37.5	30.4
I have checked this university in printed League Tables.	0	2.7	8.3	17.1	34.7	72.5	73.5
One of my friends suggested this university.	20.0	37.8	27.1	24.4	0	27.5	38.8
I have met someone from this university at a HE Fair.	2.9	21.6	14.6	19.5	22.4	37.5	35.6
One of my staff suggested this university.	5.7	5.4	12.5	29.3	18.4	37.5	33.1
One of my parents suggested this university.	11.4	10.8	25.0	9.8	10.2	30.0	21.2
I have sent an email to this university.	5.7	2.7	16.7	9.8	10.2	27.5	25.8
Someone from this university visited my school/college.	5.7	5.4	6.3	17.1	6.1	35.0	30.6
I have made a telephone call to this university.	8.6	5.4	8.3	12.2	18.4	7.5	14.0
I have accessed an applicant portal for this university.	2.9	0	12.5	4.9	6.1	27.5	28.5
I have seen something about this university on YouTube.	5.7	0	0	4.9	8.2	27.5	28.5
I have joined a Facebook group for this university.	2.9	8.1	0	0	2.0	2.5	9.1
I have had a telephone call from this university.	0	2.7	2.1	2.4	2.0	0	3.7
I am following this university on Twitter.	0	0	0	0	2.0	0	3.0

The breakdown by cohort showed that the highest usage figures per item occurred more frequently at The Croft than elsewhere. Calculating the number of times each cohort was ranked high (1st or 2nd), medium (3rd or 4th) or low (5th or 6th) for usage of an item, suggested that ranking was not independent of cohort. BTEC students tended to use fewer items than A level students, and the independent school students used the most (see Table 6.4).

Table 6.4 Cross-cohort rank order comparisons for use of 23 items.

	High rank *(1st or 2nd)*	Medium rank *(3rd or 4th)*	Low rank *(5th or 6th)*
Newtown Vocational Centre	3	6	14
Greenfields BTEC group	5	4	14
Greenfields A level group	5	11	7
Newton A Level Centre	10	10	3
Borough Sixth Form	9	11	3
The Croft	18	2	3

Inferential statistics applied to this data gave a result that was significant at p>0.001 (using Chi-square test of association, X^2 = 48.58, with *df* = 10) indicating that the frequency with which item usage was ranked as high, medium or low was not independent of cohort.

6.1 (iv) Use of league tables by cohort.

The final column in Table 6.3 had shown the range of scores across cohorts in relation to each item; high range scores therefore identify strong cohort differences. The cross-cohort range for both types of league table (on-line 78.8, printed 72.5) were so much higher than for any other item, that this was explored further (see Table 6.5).

Table 6.5 League tables: pattern of use by student within cohort.

	Used for every university	Used for some universities	Never used
Newtown Vocational Centre	1	1	8
Greenfields BTEC group	1	2	6
Greenfields A level group	2	4	4
Newton A level Centre	5	0	4
Borough Sixth Form	7	1	2
The Croft	8	0	0

Consistent users of league tables were predominantly in the sixth forms (particularly at The Croft where every university had been checked) and non-users were mostly found amongst the BTEC students, but the fact that two BTEC students did use them and two sixth formers did not, highlighted that assumptions about the *type* of source preferred by particular cohorts could be misleading in relation to individual students.

The overall picture was that a) patterns of usage varied for different types of information with a clear dominance of the top three items, and b) that the number and type of sources used varied between cohorts, but that between-cohort differences sometimes masked individual behaviour that departed from what might appear to be a cohort pattern.

6.2 Student descriptions of the use of sources and the value assigned.

Responses to Question 2 illustrated the numerical data by showing *how* sources had been used and what *value* had been assigned to them as a part of the decision making process. Whilst card-sort Task 2 referred only to the shortlisted universities, responses to Question 2 could refer to any university. This supplemented the card-sort data by offering a more nuanced view of the ways in which universities had been researched. However, in the sections that follow it should be remembered that the *use* of any item did not necessarily indicate that it had been part of the process by which it was initially *found*. Students sometimes admitted that they had been unaware of valuable sources of information when they were searching for universities, only discovering them after universities had been chosen.

6.2 (i) University websites, prospectuses and UCAS Course Search.
University websites were the most frequently used source. Some students appeared to judge a university only by the quality of its site, but most chose to have a prospectus as well. Natalie's experience had given her a particular insight into this:

> "The internet is crucial. University websites create the image, show if the university is modern. But when St Andrew's told me they didn't have a prospectus it made me feel not wanted…I still like to have something in my hand."
>
> (Natalie, The Croft)

The high usage levels for university websites and prospectuses did not necessarily mean that students were always satisfied with the quality of information they provided. Some felt that site navigation was not helpful, some were unhappy with the details of what they found, and some said that information could be incorrect or inadequate:

> "I went to the university websites first but on some I couldn't find the courses. I tried lots of keywords but nothing came up."
>
> (Rebecca, Greenfields A level group)

> "It can be very difficult to tell if there is a difference in course content. Module titles don't always mean the same thing."
>
> (Oliver, Borough Sixth Form)

There also appeared to be a widely-held belief that these university-produced sources were often focussed more on recruitment than on information provision. Student profiles were believed by many to be a marketing ploy that should be treated with caution, though occasional examples were felt to provide a more balanced view of university life:

> "Prospectus profiles are always positive so they actually tell you nothing!"
>
> (Natalie, The Croft)

> "Student comments often seem quite fake, but I believed the Students' Union President's 'blog' in one of the prospectuses I looked at."
>
> (Eleanor, The Croft)

UCAS Course Search was the second most popular source, but comments showed there was considerable variation in the *way* students had used it. Some regarded it as an essential tool for starting the search for universities, others used it simply as a way of finding five courses:

> "I started with UCAS Course Search to find all of the universities that offered drama combined with English."
>
> (Natasha, Newtown A Level Centre)

> "At the start I knew two places that did my course…Rose Bruford and the University of the Arts…so I had to go to UCAS Course Search to find three more."
>
> (Liam, Borough Sixth Form)

Despite the high usage of Course Search, some students had remained unaware of its existence throughout the entire process of finding possible universities. Even amongst those whose card-sort showed they had used it for their shortlisted universities, some had accessed it only when they could not find the information they needed in the university prospectus:

> "I didn't realise that UCAS had Course Search until I went on to the UCAS website to apply, and I'd already chosen my universities by then."
>
> (Jessica, Newtown A Level Centre)

> "I went to the UCAS website for the codes but one of my courses wasn't on there yet, so I've had to put the wrong code *(on the advice of the university)*."
>
> (Katie, Newtown Vocational Centre)

6.2 (ii) Visiting the universities and meeting their staff.

Open days were ranked in fourth place overall, and most students had attended at least one. Interview comments suggested that open days were often associated with strong emotional reactions. Where positive, they could produce a sense of belonging that made the university an unassailable first choice; where negative, they could be sufficiently powerful for a university to be rejected:

> "My friend suggested her university and said she loved it. When I went to the open day I fell in love with it too…and wanted it more and more."
> (Katie, Newtown Vocational Centre)

> "When I went to the open day at the university that I *had* thought would be my number one choice I really hated it."
> (Holly, Borough Sixth Form)

Holly's open day experience was sufficiently influential for her to discount this university completely, despite its previous popularity.

There were nine students who had not attended any open days, and most provided spontaneous explanations for behaviour they clearly sensed must seem unusual. Daniel, Alice, Abigail and Amy said they had already had an opportunity to visit the universities they had as favourites, either as part of a school visit or because they had relatives there. Rebecca and Liam both knew that an interview or audition would form part of the selection procedure, giving them a chance to visit. The only students who never referred to open days were Alexander, Jack and Joseph, who had all used very few sources.

Open days potentially provided an easy opportunity to find out what a university was 'really' like:

> "Mum or Dad came with me to all of the open days. It was important to see the facilities but a big factor was talking with the students there."
> (William, Newtown A Level Centre)

However, whilst some students said they valued the opportunity to meet current students, many expressed concerns that, in common with prospectuses, such events could be marketing-led:

> "If a student is giving you a tour and they are put on the spot *(by a visitor's question)* it would be hard for them to disagree with things the university says."
> (Thomas, Greenfields A level group)

> "I looked around just with my Mum rather than on a tour with a student. Mum thought that would get a more realistic experience for me."
> (Jessica, Greenfields A level group)

> "If someone is paid to be a student ambassador how much can you believe them? One person you actually know counts for twenty you've been 'given access' to."
>
> (Alexandra, The Croft)

University staff were also sometimes suspected of attempting to recruit to the courses they offered, even when this was not what the student wanted. Samuel had done some research before the college visit to the local UCAS convention, but was given contradictory advice there by a university that did not actually offer his preferred course:

> "Film studies seems best for me as I want to be a critic. At the HE Fair I was asking what can things lead to…but then one of the university reps told me I should do *journalism* if I want to be a film critic."
>
> (Samuel, Newtown Vocational Centre)

Recruitment activities initiated by the universities themselves did not always have the intended result. Chloe had considered Keele a possible destination until a visitor arrived:

> "We had a visitor from Keele at our college and from what she said it's in the middle of nowhere!"
>
> (Chloe, Greenfields BTEC Group)

Chloe dropped Keele from her longlist having now discovered what the term 'campus university' meant. Those who spoke of visitors coming to school were predominantly at The Croft, where visiting speakers were a regular feature of the IAG programme, sometimes as early as year 10. If state sector students did refer to such early links between school and universities, they were speaking of widening participation activities, usually generic in nature:

> "Ever since year 9 I've been expecting to go to university. I went to Taster Days at some of my universities and the van came to our school, which meant I found out about some more."
>
> (Abigail, Greenfields A level group)

The 'van' that Abigail referred to was the local AimHigher Roadshow, which provided a range of opportunities for pupils to find out about higher education and meet staff from local universities.

6.2 (iii) League tables.

On-line league tables had been used 117 times and printed tables 58 times. Many of these were duplications, but the total number of universities checked by one or other form of table was 130 (52%), one of the most popular sources overall. League table usage was heavily polarised, with 88% of the students either using them for every university or for none. Seven students had apparently used them for only one or two of

their universities, which seems counter-intuitive, since once a table had been accessed it would be very simple to look at every university being considered. However, interview comments suggested that these might be examples of compensatory behaviour:

> "Mum and I went to four open days but there was one that we missed, so I went on-line and looked at a league table for that one."
>
> (Jessica, Greenfields A level group)

Amongst those who made consistent use of league tables, both motivation and usage varied. Some were intent on entering the 'best possible' university whilst others simply wanted to ensure they were not considering any 'bad' ones. Some concentrated on the overall position of the university whilst others gave priority to subject rankings:

> "I looked at the standard of the university and what it might get you in the future. If I had ranked the *courses* the order would have been different, for example, Kent would have been much higher."
>
> (Andrew, Newtown A level Centre)

> "Once I'd found the places that had my course I went to the subject league tables and looked at the reputation of the drama department. For me, personally, the reputation of the university as a whole was secondary."
>
> (Natasha, Newtown A Level Centre)

One final aspect of the narrative data in relation to league tables was initially hard to understand, but became clearer following interrogation of published league tables. Jade and Katie made clear statements about the relative league table positions of their universities, but these appeared to be highly inflated. They had both applied for nursing courses, and had chosen the same universities. Taken together, their comments suggested a possible explanation for their misunderstanding:

> "My first-choice university is in the top ten and my second choice is in the top fourteen…the ratings are on the website."
>
> (Katie, Newtown Vocational Centre)

> "I haven't looked at the league tables myself but the universities told me some things about their position."
>
> (Jade, Newtown Vocational Centre)

Both Jade and Katie were wrong, because their universities were consistently in the lower half (or even lower quartile) of the national league tables. However, filtering published league table data by university groupings, or by regions, showed that it was *possible* to produce data that would allow the universities concerned to claim that they were 'top ten' or '14th' and provide an external, published source for this data. It appeared that even though every participant expressed some dissatisfaction with universities 'selling' their courses, some of the more 'sophisticated' marketing techniques may have gone unnoticed

6.2 (iv) The role of friends and family as providers of information.

Some students had made early reference to their reliance on friends and family to suggest universities and, as Task 1 had shown, this could be associated with very limited knowledge of the university sector. Task 2 added an additional perspective to the role of friends and family because every student identified for each of their universities whether they knew anyone already studying there and whether it had been suggested by friends or family. This demonstrated that students who had emphasised the 'cold' factual knowledge that could be obtained from UCAS Course Search in the search for universities had sometimes received *more* suggestions from friends or family than those who said they had relied on this. In many cases this would not have been apparent from interview comments because some students were insistent that they had not actually been *influenced* by the views or experience of people they knew, particularly amongst the Borough cohort, where several students said teachers had stressed the importance of making personal decisions, and no participant ever selected the source card that said a university had been *suggested* by a friend. However, all of the students were part of peer groups for whom UCAS was a central issue, making complete independence of decision making unlikely, and even amongst the Borough cohort, at least one participant seemed to recognise this:

> "I suppose to a certain extent my friends *did* influence me…because they brought to my attention some universities I'd never even heard of."
>
> (Oliver, Borough Sixth Form)

Amongst those who did acknowledge the role of friends or family in their choices, there appeared to be considerable variation in the degree of knowledge or expertise possessed. Some had apparently relied on people who knew little more than they did themselves:

> "My best friend here is Samuel…he's driven me and I've looked at the same universities."
>
> (Jordan, Newtown Vocational Centre)

Jordan appeared to regard Samuel (who happened to be another participant) as being well-informed, though Samuel gave no evidence of a level of knowledge or understanding that was any greater than Jordan's own. Those who were drawing on the experience of friends already at university most often said that the friend was happy with their course, but some used friends' experience in a cautionary way:

> "Friends already at university have helped with my choices. If they go for the nightlife they're bored...I've learned from the regrets and mistakes of my friends."
>
> (Jessica, Greenfields A level group)

Family members, including parents, siblings, grandparents, aunts, uncles, and cousins were also acknowledged to have been influential even when their knowledge amounted to little more than an awareness that a university existed, and regardless of whether the university would have been an appropriate destination:

> "Every time we went to Liverpool for the day my Nana would point *(at the university)* and say 'you'll be here one day'…so I've applied there, but I don't really want to leave home. And at Manchester Met I've got friends in all three years of the course."
>
> (Charlotte, Greenfields A level group)

> "No one in the family has been to university so my parents are not really in a position to advise, but including Manchester *(only a bus ride from home, but where Andrew himself felt the course was 'too eclectic')* was definitely to do with my grandparents who are worried about me going away."
>
> (Andrew, Newtown A Level Centre)

However, knowledge from family members did not necessarily equate to poorly-informed knowledge: where family members had personal experience of higher education they could be a more informative source, and some appeared to have steered students towards what they felt were appropriate sources of cold knowledge:

> "I started my research early in year 12 so that was before teachers had talked to us about university. But my sister had already gone, so I knew from her to start with the league tables."
>
> (Alice, Borough Sixth Form)

There were occasional examples of family members who appeared to be unusually well-informed, and may have imparted knowledge that would not have come from the school or college:

> "My Dad gives careers advice and has wanted to be involved…annoyingly so at times! He did suggest some universities, but I made my own decisions."
>
> (Adam, Newtown Vocational Centre)

Even though Adam suggested that his father's advice was not entirely welcome, it appeared to have made an impact, because Adam knew of three universities offering his course that were not known to anyone else in his cohort.

6.2 (v) The role of school or college staff as providers of information.

School or college staff were frequently mentioned as a source. The extended team of professionals referred to at The Croft was not matched in any of the state sector cohorts, but state-educated students did provide many examples of suggested courses or universities that came from members of the guidance team, and these were often appropriate to the needs and circumstances of the student:

> "I'd always been interested in doing science at university but I didn't have the grades for A level sciences. One of the staff here told me I could do a science foundation year *(at university)*. I wouldn't have known about this myself."
>
> (Megan, Borough Sixth Form)

However, when state sector students commented on advice that came from staff who were *not* members of the guidance team, some suggestions *had* been informed and useful, but others were based on personal experience that did not take account of the preferences and circumstances of the student they were advising:

> "My teacher told me there was a course at the college. I would never have found it otherwise as I didn't know they did university courses. Then I found another one at a different college."
>
> (Sarah, Greenfields BTEC group)

> "My tutor suggested a university that is on a campus, when I'd said that I only want to be in a city…it turned out that was where he'd gone himself!"
>
> (David, Greenfields BTEC group)

Subject teachers sometimes suggested universities that were 'good for the subject', but again this varied from comments that appeared to be well-informed to those that seemed to be based only on personal experience and preference:

> "My teacher suggested Bristol and Birmingham. I would not have heard about them but she told me they're both good and they're Red Bricks or whatever."
>
> (Georgia, Newtown A level Centre)

> "I *had* thought that UEL *(University of East London)* is not a particularly good university…but then my teacher said he'd found it was quite good and that any university is what you make of it."
>
> (Joseph, Borough Sixth Form)

Joseph accepted his teacher's view of UEL and made it one of his UCAS choices, having looked at nothing more than the prospectus and apparently unaware that this university was in the bottom ten in the league tables.

There were occasional examples of teachers or tutors offering advice that the participant felt had not been helpful, either because it failed to support their own desires or aspirations or because they felt it had been poor advice. Megan and Andrew both described examples that related to Oxbridge, though the circumstances and outcome differed:

> "My Dad and my Grandad both went to Cambridge so I really wanted to go there too, but the school refused to support that because of my GCSE grades."
>
> (Megan, Borough Sixth Form)

> "My GCSEs were not good enough for me to be in the Oxbridge Group, but two days before the deadline my teacher suggested, well, pushed me really, to go for Cambridge. Because I wasn't in the 'club' my preparation wasn't good, and it was all very last minute. I think now that an open application to Cambridge was wrong."
>
> (Andrew, Newtown A Level Centre)

Megan's tutor and teachers appeared to have acted in line with advice from the school's guidance staff, whilst Andrew's teacher seemed to have departed from college policy by advising a Cambridge application to an applicant who did not have the expected GCSE grades. In both cases, the student expressed disappointment, but Andrew had also been potentially disadvantaged in relation to other universities by rushing his UCAS form in order to meet the October deadline for Oxbridge applicants.

6.2 (vi) Other communications between students and universities.

The number of students who had sent an email to a university was noticeably less than the number who had received one, (31 sent compared with 86 received) and this seemed to be explained by the high number of 'marketing' emails received. Many of the students referred to unsolicited messages from universities, and whilst some gave information that an applicant might need, such as open day dates, others appeared to have messages of the 'wish you were here' postcard type:

> "One university sends me loads of postcards with really nothing on them. They are wasting their time because I won't go there, it's a campus and I want to be in a city."
>
> (Jordan, Newtown Vocational Centre)

Some students appreciated the contact, others couldn't see the point of it, and a few were clearly experiencing a level of contact they found intrusive. For example, William produced his mobile phone as evidence when he described the annoying behaviour of one university:

> "They bombard me with emails, around ten a month, *(at this point William produced his phone to show a message received just that morning.)* I just delete them. My first-choice university send me about one a month to keep me up to date with things and that's about right."
>
> (William, Newtown A Level Centre)

Danielle and Melissa had also received more unsolicited contacts from universities than they wanted, and considered many of the communications to be thinly-disguised advertising, rather than genuinely useful information.

> "I have a real thing about universities that try too hard. Isn't getting in competitive enough? Maybe they are not getting as many applications as they should."
>
> (Danielle, Borough Sixth Form)

> "I'm very sceptical of what universities are doing…it's advertising and not 100% truthful. If they are so desperate for people to sign up there must be something wrong."
>
> (Melissa, The Croft)

When candidates had *sent* emails it was usually associated with a desire to find course information that was not readily available in prospectuses or on websites. William, despite having been 'bombarded' with emails, had also sent some. Having identified at an early stage of his research that the content of Sport Technology degrees could vary considerably from place to place, he emailed his universities to be sure he was making choices that would bring together his love of product design and his interest in sport.

Telephone contact with a university was much less common than emails and the pattern was reversed, in that students were more likely to have made a telephone call than to have received one (26 made compared with 4 received). Calling a university seemed to be a preferred mode of communication for a small number of students. Olivia, who had telephoned all five of her UCAS choices (but had not sent any emails), appeared to be seeking detail and accuracy. When explaining how her longlist became a shortlist, her first comment was simply, "Some of the courses were not right". Jessica, who had telephoned three of her universities (and again had not emailed), had been pushed by her Mum to arrange a programme of open days at a very early stage when they would not yet have been advertised on websites and, for a parent, telephoning may have seemed the most obvious way to suggest making contact.

6.2 (vii) 'Independent' sources of advice: social media.

Many students felt that information purporting to come directly from students could not be relied upon if it was channelled through an 'official' source, such as a student profile in the prospectus or website. Supposedly independent sources, such as Facebook, were often thought to be a better source of accurate information, but some had suspicions that what might appear to be student-led was just another form of marketing:

> "The problem *(with Facebook)* is you don't know if it's a university page. If they set it up themselves they won't publish bad things…they'd monitor it, just like the prospectus."
>
> (Jake, Borough Sixth Form)

Most of the comments referring to Facebook arose because certain universities appeared to be inviting anyone who was on their databases to join a university group, and some students clearly felt this was not a sensible move:

> "I wouldn't join a university Facebook group when I'm not even in yet! Why tell the whole world where you want to go when you might not get in?"
>
> (Georgina, The Croft)

> "When I'm relaxing university is not the first thing on my mind…and I don't want the universities to see me on a night out, drinking."
>
> (Charlotte, Greenfields A level group)

> "UCAS is serious…and so is school, it feels like part of UCAS. But Facebook is just for fun. "
>
> (Holly, Borough Sixth Form),

Very few students said they had joined a Facebook group, but those who had done so were hoping to meet other new students before they began their course. Unfortunately, their expectations had not been met, as very few prospective students had joined, though Natasha did at least find someone she knew:

> "I've joined the Facebook group for my first-choice university but it's mostly current students on there. When my friend joined hers she got to know some other new students before she started."
>
> (Emma, Greenfields BTEC group)

> "I found out on Facebook that a friend from school is now a student at Goldsmiths, and that was a big reason for including it."
>
> (Natasha, Newtown A Level Centre)

Three students said they had deliberately searched for sources of online advice that they felt might provide a more honest view than information controlled by the universities:

> "I wouldn't pay attention to prospectuses because they only put good comments in, but student-run websites have comments on lots of universities and there's no reason to write on there unless you really want to say something good or bad. The Studential website is good…it made my personal statement sound more…technical."
>
> (Benjamin, Newtown Vocational Centre)

> "You have to be very wary of things online…Facebook may not be genuine. But the Student Room was a big influence for me…especially on how to prepare for the LNAT *(Law Aptitude)* test."
>
> (Georgina, The Croft)

> "I looked at Students' Union websites for all of my universities because they provide an alternative view of student life to what's in the prospectus. I also looked at YouTube for things that seemed genuine."
>
> (Kirsty, The Croft)

These online sources, which were clearly perceived as 'independent' of universities, accounted for all ten of the additional cards that were written during this second card-sort task.

6.3 Possible links between IAG and the number of sources used.

Interview comments suggested that the consistently high number of sources of information and communication used at The Croft might have been related to an aspect of the school's IAG policy: all students there commented on the schedule of one-to-one meetings with the team of staff who supported their decision making. Preparation for these meetings was sometimes described in detail:

> "Once I had my list of possible universities I made an Excel document for all of them, and at my next meeting with my personal guidance tutor we looked at this. He was able to fill in some of the gaps for me...and I added more information as I found things out."
>
> (Louisa, The Croft)

Louisa's use of an Excel spreadsheet to guide her research appeared to be a personal preference, and there were no comments suggesting that students had been told exactly how to research their universities, but they appeared to have a shared understanding that independent research was necessary for the one-to-one meetings to be beneficial, and this may have explained their consistent use of a wide range of sources.

In the state sector, students who mentioned one-to-one meetings were usually referring to a session in which their tutor gave feedback on the UCAS personal statement drafted by the participant, rather than with the whole process of researching and choosing courses and universities. There were many examples of students who said that a teacher, tutor or adviser had suggested a particular university or course, but across all five state sector cohorts, there were only three students who made any comment suggesting that staff had directly encouraged them to carry out their own, independent research in order to find suitable universities:

> "The school had a big role in helping me decide what to apply for…guided not to make wasted applications that were too high or too low. For example, my year 12 grades were not what I wanted so I was advised not to apply to Warwick."
>
> (Danielle, Borough Sixth Form)

> "Teachers made me consider a lot of universities before I started making choices…and not picking too many high choices. Miss A *(Head of Guidance)* said to find some that are *not* 3 A grades!"
>
> (Rachel, Borough Sixth Form)

> "Teachers here expect us to make up our own minds…but they are here when we need them. I did a lot of research at home first to come up with a list that I could choose from."
>
> (Samantha, Borough Sixth Form)

All three of these students were, like those at The Croft, in the sixth form of an 11-18 school. However, any parallel between Borough and The Croft appeared to be only partial, because the Borough cohort also included Joseph, whose 'research' consisted of no more than looking at prospectuses for five local universities.

The lack of any comparable comments in the college cohorts did not, of course, mean that independent research was not taking place. Every cohort had some students who had used a wide range of sources and considered many possible options, but even those college students receiving specialist help as part of an 'Oxbridge Group' for high achievers did not appear to have had any sessions that focussed on researching and choosing universities. Hannah expressly made this point:

> "There was no help with other university choices. With Durham, I got an open day invitation that said 'formal dress', so that alarmed me. Their website makes out the colleges are all the same, but actually some are very public school. I used Student Room to get the *true* picture…and then changed my college."
>
> (Hannah, Greenfield A Level group)

6.4 Summary.

The findings indicate that the *factual* answer to the first part of Research Question 2 (What sources of information had students used?) was that every student made use of a university website, or UCAS Course Search, or a prospectus, for each of their universities, but beyond this very little could be assumed, particularly if the student was being educated in the state sector. The most striking feature of the data was the contrast between the consistency of behaviour at the Croft, and the variability of behaviour in all other cohorts. In answering the second part of the question (How did they value these sources?) the data suggested that the value placed on any source was influenced by a) any existing knowledge structure that had set up expectations about a source, and b) personal attributes, such as a preference for information and communication to be delivered face-to-face rather than written, or the degree of trust or scepticism that a student brought to the task. Knowledge structure was sometimes attributable to the school or college, but many students had made little use of IAG provision and some quoted advice from staff that was inappropriate or occasionally inaccurate.

Chapter 7: The longlisted universities.

Introduction.

This chapter presents data that is pertinent to Research Question 3 (How did the students generate a longlist, and which universities did they include?), and draws on quantitative data from card-sort Task 1, in which the cards assigned to Categories 1 and 2 together formed the longlist for each student. The first part of the chapter explores the universities that were considered as possible destinations by the students, beginning with the *number* of universities longlisted, and then considering *which* universities were longlisted. The data is analysed by whole sample and by cohort, using descriptive and inferential statistics to look for differences and trends. Two features of the selected universities that highlight differences between cohorts are considered: a) the degree of interest in the RG94-universities, and b) whether the student would consider leaving home.

The second half of the chapter considers how students explained their longlisting behaviour. This draws again on the responses to Interview Question 2, but is also informed by answers to Interview Question 5, in which students were asked to identify a single key factor that was their 'most important influence' when searching for universities. Most of the students responded to this request with an answer that fell into one of five broad categories, and these are used to structure their explanations of how they generated a longlist.

7.1 The number and type of universities longlisted.

The longlist of each student could be determined by combining the university name cards that had been assigned to Category 1 (I applied to this university) and Category 2 (I considered this university but did not apply there). The total number of cards placed in these two categories was 658, and they included 98 of the 115 universities. Longlisting behaviour varied considerably, with the shortest longlists consisting of only two universities whilst the longest included 29 possible universities. The 56 scores produced a frequency distribution with a range of 28 and a median score of 12. Scores at the top of the range were uncommon: the 25th percentile was at 8 and 75th at 15, giving a semi-interquartile range of 8 (see Figure 7.1 *overleaf*).

Figure 7.1 Frequency distribution of number of universities longlisted.
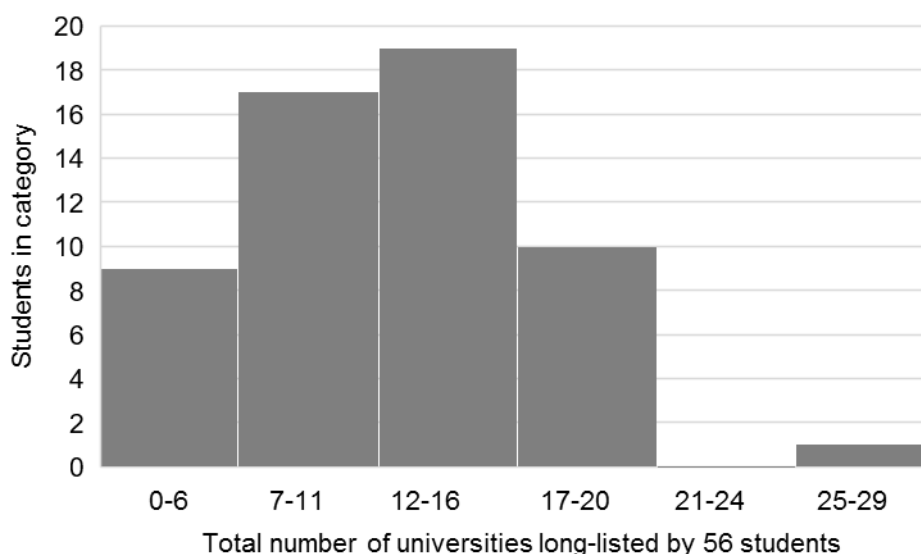
The extreme score at the high end of the distribution in Figure 7.1, was a statistical outlier (using Marsh and Elliot, 2008). Zoe, who had longlisted 29 universities, appeared to sense that she had placed a rather large pile of cards in Category 2, and offered a spontaneous explanation:

> "I started by looking at the Russell and the Red Bricks, but realised they don't do my course…their media courses were too academic and not creative, which is what I want. So then I used UCAS Course Search and Google…it took me quite a while."

> (Zoe, Newtown A Level Centre)

Zoe's score of 29 was removed from the longlist data before any statistical tests were conducted as it would have inflated some of the results (particularly the Kolmogorov Smirnoff test).

Separating out just the RG94-universities produced 376 cards representing all 37 of these universities. The number of RG94-universities longlisted by the students ranged from 0 to 20, with a median of 5 and a semi-interquartile range of 10 (25th percentile at 2.5 and 75th percentile at 11.5). The scores for this subgroup of prestigious universities were therefore skewed towards lower scores (see Figure 7.2, *overleaf*).

Figure 7.2 Frequency distribution of RG94-universities longlisted.
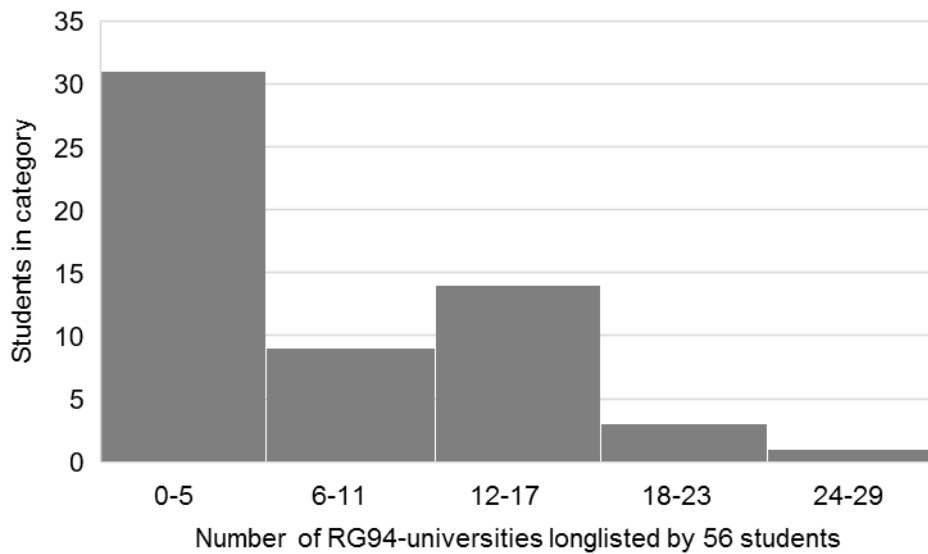
7.1 (i) Cohort differences in the number and type of university longlisted.

Presenting the data by cohort suggested considerable variation between groups, with an apparent trend towards longer scores for A level students, particularly in the sixth forms. Longlists below five were found only at the Newtown Vocational Centre, sixth form cohorts had no students with a longlist of fewer than nine universities, and college A level cohorts had a mix of low and high scores. These differences appeared to be more evident when considering only RG94-universities, with some students relying almost exclusively on this sub-group, whilst others had longlisted few or no universities from these groups. Students who longlisted fewer than the median number of universities (12) *and* fewer than the median number of RG94-universities (5) were almost entirely in the college cohorts, particularly the BTEC groups (see Table 7.1 *overleaf*).

Table 7.1 Number of universities longlisted (RG94-universities in brackets).

	Newtown Vocational Centre		Greenfields BTEC group		Greenfields A Level group		Newtown A Level Centre		Borough Sixth Form		The Croft School	
Number of universities	2	(0)	6	(1)	6	(1)	5	(2)	9	(3)	11	(11)
	2	(0)	8	(3)	6	(3)	6	(2)	9	(7)	12	(12)
	4	(0)	9	(1)	7	(4)	8	(4)	12	(11)	12	(11)
	6	(2)	11	(1)	8	(2)	11	(3)	12	(12)	15	(14)
	7	(0)	11	(5)	8	(3)	11	(10)	13	(6)	15	(15)
	8	(4)	13	(1)	13	(3)	13	(7)	13	(6)	17	(17)
	11	(3)	13	(5)	14	(6)	14	(13)	16	(8)	18	(14)
	11	(3)	14	(5)	15	(12)	18	(12)	17	(12)	20	(20)
	12	(2)	15	(5)	16	(4)	29	(9)	17	(14)		
	12	(6)			19	(18)			18	(18)		
Median	7.5	(2)	11	(3)	10.5	(3.5)	11*	(7)	13	(9.5)	15	(14)
Range	11	(7)	10	(5)	14	(18)	14*	(12)	10	(16)	10	(10)

Median and range score when Zoe's statistical outlier of 29 is discounted.

Testing this data for trend across cohorts in the number of universities longlisted, from least traditional (Newtown Vocational Centre) to most traditional (The Croft) produced a result that was significant at $p<0.01$ (using Jonckheere's trend test, z = 2.77). The data was then tested for variation within cohorts, which produced one result that was significant at $p<0.05$ (using Kolmogorov Smirnoff, for Borough Sixth Form D = 0.429). The other five cohorts did not produce any significant results, (though The Croft was only 0.011 below the critical value for significance).

The tests were then repeated using only the data for the number of RG94-universities longlisted. Testing for trend across cohorts produced a result that was significant at $p<0.001$ (using Jonckeere's test, z = 5.31). Testing for variation within cohorts produced significant results for four cohorts: Newtown Vocational Centre = 0.667 ($p<0.01$), Greenfields BTEC group 0.714 ($p<0.01$), Greenfields A level group = .467 ($P<0.05$) and The Croft = 0.524 ($P<0.05$).

Interpreting the results in the context of the thesis, the statistically significant results for the trend tests indicated that cohorts were not all longlisting in the same way, with a tendency for a greater number of universities to be longlisted as the school or college environment became more traditionally HE-oriented. However, the college cohorts all had considerable within-group variation and none of them varied significantly from the whole sample distribution: the same cohort could include students who behaved in a way comparable to the sixth formers and students who considered so few universities as to have no choices to make. The between-group differences

became even more evident when just the RG94-universities were considered, with a highly significant trend for more RG94-universities to be considered as the educational environment became more HE-oriented. This was emphasised by the goodness of fit tests, which confirmed that three of the college cohorts had scores that were sufficiently clustered at the *lower* end of the distribution to produce a significant result. The significant result for The Croft was due to scores that were gathered at the *high* end of the distribution.

The trend across cohorts indicated by the inferential statistics became very clear when the universities longlisted by each cohort were presented to show the percentage of universities that were RG94-universities (see Figure 7.3).

Figure 7.3 Percentage of RG94-universities in the longlists.
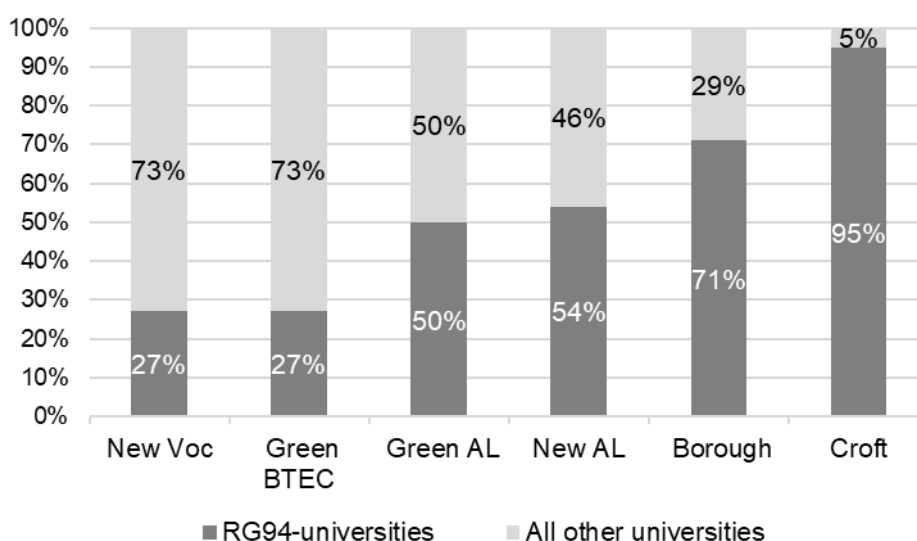
The close correspondence between the two BTEC cohorts and the two college A level cohorts was very evident when the composition of the longlists was compared in percentage terms. The two sixth form cohorts were less similar, with the independent school students considering very few universities that were not RG94-universities.

7.1 (ii) The universities that were included in the longlists.

Understanding of the percentage data shown in Figure 7.3 was enhanced when the actual universities that had been longlisted were considered. Tabling all universities longlisted by two or more students within a cohort, confirmed that status was influential for sixth formers. For college students, particularly in the BTEC cohorts, location appeared to be a strong influence, with many students considering universities close to home (see Table 7.2 *overleaf*).

Table 7.2 The longlisted universities by cohort.

	Universities that were longlisted more than once within a cohort	Times listed
Newtown Vocational Centre	Central Lancashire, Edge Hill and Salford.	7
	Manchester Metropolitan.	6
	Chester, Manchester*and Liverpool*.	5
	Bolton and Liverpool John Moores.	3
	Hull, Keele, Leeds Metropolitan, Leicester** and Newcastle**.	2
Greenfields BTEC group	Liverpool John Moores.	10
	Leeds Metropolitan.	8
	Manchester Metropolitan, Salford and Sheffield Hallam.	7
	Manchester*.	6
	Leeds*.	5
	Huddersfield, Lancaster**, and Sheffield*.	4
	Bolton, Chester, Edge Hill, Keele and Liverpool*.	3
	Birmingham*, Birmingham City, Central Lancashire and Nottingham*.	2
Greenfields A Level group	Liverpool John Moores, Manchester*, Manchester Metropolitan and Sheffield*.	6
	Leeds Metropolitan and Liverpool*.	5
	Leeds* and Nottingham Trent.	4
	Bolton, King's College*, Nottingham*, Salford, Sheffield Hallam and York**.	3
	Bath**, Bristol*, Cardiff*, Central Lancashire, Chester, Cumbria, Edge Hill, Edinburgh*, Southampton*, Staffordshire, UCL* and Warwick*.	2
Newtown A Level Centre	Sheffield*.	7
	Lancaster** and Manchester*.	5
	Leeds*, Liverpool John Moores, Manchester Metropolitan, Salford, Warwick* and York**.	4
	Aberystwyth, Birmingham*, Bristol*, Central Lancashire, Huddersfield, Leeds Metropolitan and Loughborough**.	3
	Bolton, Cambridge*, Cumbria, Durham**, Edge Hill, Edinburgh*, Exeter**, Goldsmiths College**, Keele, Kent, Nottingham*, Queen Mary** and Royal Holloway**.	2
Borough Sixth Form	King's College*.	7
	Birmingham*, Bristol*, Nottingham* and UCL*.	6
	LSE*, Oxford*, and Southampton*.	5
	Cambridge*, Kingston, Manchester*, Queen Mary** and Warwick*.	4
	Bath**, Essex** Exeter**, Leicester** and Sussex**.	3
	Brunel, City, Durham**, East Anglia**, Goldsmiths College**, Hull, Imperial College*, Leeds*, Liverpool*, Loughborough**, London Metropolitan, Manchester Metropolitan, Middlesex, Nottingham Trent, Sheffield* and Surrey**.	2
The Croft School	Durham**.	8
	Bristol*, Cambridge*, Edinburgh* and Oxford*.	7
	Bath**.	6
	Exeter**, King's College*, Manchester*, Nottingham*, St Andrews** and Sheffield*.	5
	Birmingham*, Imperial College*, UCL*, Warwick* and York**.	4
	Newcastle*.	3
	Glasgow*, Leeds*, SOAS**, Southampton* and Sussex**.	2

Whilst the dominance of northern, post-92 universities could be attributed to the study locations of the Newtown and Greenfields cohorts, it appeared overall that the large, city universities that had been well-recognised in card-sort Task 1 were also popular longlist choices. All 37 of the RG94-universities were longlisted, but being well-known did not necessarily imply frequent longlisting; Cambridge and Oxford, despite having been heard of by almost every participant, were longlisted by fewer than a quarter of them. There were only seventeen universities that were never longlisted, and these were all in locations distant from any of the cohorts, particularly in Scotland and Wales. Whilst the universities longlisted by cohorts suggested that both location and status of universities might have influenced choices, the card-sort data itself could only allow speculation on these points. The narrative provided by the interview comments did, however, offer a second body of evidence on which to base explanations of how the students had made their longlist choices.

7.2 Key factors driving the generation of a longlist.

Answers to Question 2 had covered a wide range of issues that offered insight into the process of longlisting, but responses to Question 5 (If you had to choose just one thing that was the most important influence when you were looking for universities, what would it be?) provided a degree of clarity, because 51 students gave answers that fitted into one of five categories: These were:

a) proximity to home (subdivided into 'living *at* home' or 'living *close* to home');
b) league table position;
c) details of the course;
d) influence of family or friends;
e) the 'feel' of the place.

Of the remaining students, one identified a different factor (the entry grades required), and four gave answers that did not single out just one key factor. Proximity to home and league table position were the most common, together accounting for 31 (55%) of the students.

When the number of universities longlisted by the students was broken down by these five categories identified in response to Questions 5, it did appear that there might be an association between most important influence and length of longlist. A need or desire to continue living at home was often associated with a short longlist and very few RG94-universities being considered, and an emphasis on league table position was usually associated with a high number of universities being longlisted, most of which were RG94-universities. However, the range scores showed there was

still variation within the categories: for example, a stated desire to stay close to home could produce a shorter or longer list depending on the student's personal definition of 'close' (see Table 7.3).

Table 7.3 Length of longlists by category (RG94-universities in brackets).

Proximity: live at home		Proximity: close to home		League table position		Course Content		Friends or family		'Feel' of the place		'Other' or mixed factors	
2	(0)	8	(3)	11	(11)	8	(4)	2	(0)	7	(4)	5	(2)
4	(0)	8	(3)	12	(11)	8	(4)	7	(0)	9	(3)	6	(3)
6	(1)	11	(3)	12	(11)	12	(12)	9	(7)	11	(5)	11	(3)
6	(1)	13	(7)	12	(12)	13	(3)	13	(5)	12	(6)	11	(10)
6	(2)	14	(5)	13	(6)	13	(6)	14	(6)	17	(12)	13	(1)
6	(2)	16	(8)	14	(13)	16	(4)	15	(5)	17	(14)	18	(14)
8	(2)			15	(12)	19	(18)						
9	(1)			15	(14)	29	(9)						
11	(1)			15	(15)								
11	(3)			17	(17)								
12	(2)			18	(12)								
				18	(18)								
				20	(20)								
Medians													
6	(1)	12	(4)	14.5	(12)	12	(5)	11	(5)	11.5	(5)	11.5	(3)

Testing this data for difference between categories in the number of universities longlisted produced a result that was significant at $p<0.01$ (using Kruskall-Wallis one-way analysis of variance, KW = 19.58, with $df = 6$). Applying the same test to the number of RG94-universities that were longlisted produced a result that was highly significant at $p<0.001$ (KW = 35.73, with $df = 6$). These results confirmed that the number and type of universities shortlisted by the students was not independent of the 'most important influence' they had named.

Whilst most students had felt able to identify one key factor that drove their search for universities, this did not necessarily identify groups of students who were motivated by exactly the same issues. Interview comments often made it apparent that students sometimes acted in the same way but for different reasons: for example, the reasons for considering only those universities within daily travel of home ranged from a desire for continued home comforts through to unavoidable family responsibilities. Similarly, the selection of a key factor did not, of itself, indicate the amount of pressure or influence it might have exerted: for example, identifying league tables as a key factor could mean anything from a belief that universities below Oxbridge were second best, through to a sense that everything in the top twenty would be acceptable.

The response to Question 5 was often a clear repetition of comments that had been made earlier in the interview. In the sections that follow, therefore, comments are drawn from both the answers to the key factor question and relevant earlier comments.

7.2 (i) Proximity: living at home.

Students who intended to continue living at home often made this clear at an early stage of the interview. For some, there was no other option (for example, one participant explained that she had a young child, and so relied on her mother for help) and some referred to a perceived sense of pressure from family members to stay at home. Both Jack and Amy referred to clear parental views, and Amy's father had offered a direct incentive:

> "My sister has stayed at home and Dad would like me to do the same. He's said he'll get me a car and things if I stay here."
>
> (Amy, Greenfields BTEC group)

> "My parents have said that I should do something I'm interested in or I won't do well…but that I should stay at home."
>
> (Jack, Greenfields A level group)

Rebecca and Elizabeth also appeared to be aware of family expectations but did not appear to view this as pressure, and seemed happy that staying at home was also a personal decision:

> "To be honest I didn't really look around very much. My sister is in her final year at Manchester and she still lives at home, so I just applied to the ones that are around me. It was my Mum who told me that Manchester Met is really good for my course."
>
> (Rebecca, Greenfields A level group)

> "My fiancé has been saying I really should go to university, and he came with me to the open day and the interview. I only looked at the two local ones because I knew I would stay at home."
>
> (Elizabeth, Newtown A Level Centre)

Others claimed they would have had parental approval or support to leave if they wished, but could not see any advantage in leaving home, and sometimes felt the disadvantages of doing so outweighed anything university might offer:

> "I've got a cousin at Liverpool John Moores and she said if I go away I'll meet other people, and I checked a few universities that do the course, but haven't looked at any of them myself."
>
> (Sophie, Greenfields BTEC group)

> "If I couldn't travel from home I wouldn't go. I've already got my work here as a lifeguard and a gym instructor and I wouldn't leave that."
>
> (Alexander, Newtown Vocational Centre)

Amongst those who planned to live at home, inspection of the actual universities they longlisted suggested that intentions might sometimes be hampered by overly optimistic assumptions about daily travel distances:

> "All the ones I looked at are local because I hope to live at home, but I haven't fully checked out how to get to them yet."
>
> (Samuel, Newtown Vocational Centre)

One of Samuel's choices would have been quite easy and cheap to reach, but three of them (including his favourite) would have involved a daily journey time of at least three hours, and considerable cost if his classes happened to be timetabled over most days of the week.

7.2 (ii) Proximity: studying close to home.

Those who did not plan to live at home but had still restricted their choice of universities to a relatively local area did not usually offer any explanation for this. A desire to stay close to home was often simply stated as a fact, with no sign that the participant felt this decision should be explained or justified in any way:

> "Staying local was the really big influence in what I considered. I did look at Staffordshire but realised it was too far away, and I have a cousin studying in Liverpool but for me that's not as close as Manchester."
>
> (Daniel, Greenfields BTEC group)

> "Distance from home was a big issue for me so I used UCAS to check which ones were local. If it's possible to live at home I will…but I would move out for the sake of a career."
>
> (Chloe, Greenfields BTEC group)

> "The main thing was to choose in this area, local to home. Location is really important. I've been to one of the universities with my Dad and we both liked it. I'll go to the other universities before choosing my insurance one."
>
> (Thomas, Greenfields A level group)

> "Some of the ones I really liked…Durham, Nottingham…I haven't chosen because distance was a big thing – not being too far from home."
>
> (Abigail Newtown A Level Centre)

Joseph was the only person who actually offered a reason for his decision to look only at local universities even though he planned to leave home, but his preferred outcome may have been more aspirational than practical:

> "I'm not going away to university because I don't want to live with other people…the whole idea of halls puts me off. I like being independent. What I'd really like is to go to a London university but also get a job and have my own flat."
>
> (Joseph, Borough Sixth Form)

There was only one student who referred to finance as a reason for staying close to home. Lucy had felt that London was too expensive but was still considering leaving home for a local university, although she recognised her mother had concerns about the cost of living at any university:

> "Originally, I wanted to go away because I really liked the University of the Arts and it would have been my number one preference, but it's in London which would have been too expensive. Mum says it's my decision in the end, but she always asks about finance when we go to open days…and now I'm not so sure."
>
> (Lucy, Newtown Vocational Centre)

More nuanced views of the possible importance of the distance between chosen universities and home sometimes came from those who had *not* chosen distance as a key factor, perhaps because of their experience of travelling: to open days across the country:

> "I've realised it's actually not so much distance from home that matters but *access* from home and the amount of effort involved, for example, a long journey might actually be very easy by train."
>
> (William, Newtown A Level Centre, *key factor: course content.*)

> "Distance from home is simply not an issue for a very good university, but it certainly is for a less good one."
>
> (Oliver, Borough Sixth Form, *key factor: league tables.*)

Although distance from home was the most commonly cited key factor, many students never referred to the proximity between any university and their home, even when considerable distance was involved, and some specifically stated that distance was never an issue for them.

7.2 (iii) League Table position.

Every participant who said that the status and reputation of universities was the key factor in driving the process of choosing universities had already made spontaneous, explicit comments about league tables, and their card-sort choices in Task 2 had confirmed they made extensive use of league tables. Comparison of the universities on their longlists with published league tables confirmed that these students did appear to have informed knowledge of the relative status of their chosen universities. Those who saw league tables as a way to ensure they entered the best possible university often seemed to recognise that aiming high might increase the risk of receiving rejections, and some expressed anxiety about their ability to get a place at a university they felt to be sufficiently prestigious. Georgina, Oliver and Andrew all had two rejections from Russell Group universities, including Oxford or Cambridge:

> "For the whole of last year, I was thinking I must do well to get in to a good one. It's important to go to a top university."
>
> (Georgina, The Croft)

> "My parents want me to go to the best possible university so the main things I looked at were the league tables, but predicted grades were the other big thing."
>
> (Oliver, Borough Sixth Form)

> "I started with The Times, but I also looked at the entry requirements so I could stagger my five choices. I made one compromise of somewhere with lower grades but still a good course…an obvious insurance choice."
>
> (Andrew, Newtown A level Centre)

Other students appeared to have used league tables in a more relaxed way, in order to check that their longlist included only universities they felt were *acceptably* high (perhaps in the top fifteen or twenty), rather than as a search for 'the best'. In such cases, it was common for students to emphasise that whilst league tables were vital, other factors were also extremely important:

> "League tables were essential, but I also wanted 60% drama and 40% English…and I wanted a city."
>
> (Natasha, Newtown A Level Centre)

> "I discarded anywhere that was not high in the league tables, but then I also looked at the department, the course modules, flexibility, year in industry. I've also researched the costs."
>
> (Lauren Greenfields A level group)

Alexandra was the only student holding a place at Oxbridge, and had five offers, all from RG94-universities, but she placed almost equal emphasis on the feel of a university:

> "Oxford, Bristol and Edinburgh are high in the league tables, but I also asked friends who'd gone there if they would make the same decision again. How happy I'd be there is important."
>
> (Alexandra, The Croft)

The influence of league tables could be very strong with immediate impact. For example, Holly had done some research before the school advice sessions began, and already had a list of universities she liked. Her view of these universities changed, however, as soon as she understood the role of league tables:

> "I started looking at universities and getting prospectuses in year 11, but then in year 12 I found out that some of them were low in the league tables so I dropped them."
>
> (Holly, Borough Sixth Form)

7.2 (iv) Course details.

Students who stated that some aspect of the course was the key factor in finding universities were often looking for degree titles that were relatively uncommon, or for unusual combinations of subjects. William had visited universities as far apart as Strathclyde and Brighton because he could find very few courses that offered the blend of content he was looking for. His belief that it was essential to find the right course appeared to be unshakeable:

> "I knew in year 1 *(at college)* that I wanted sports technology *(at university),* but I really like the Product Design A level, so I wanted to bring those two together. Not many places had the right content. The main influence is how much I want the course. If I didn't like the course, I'd be like…No!"
>
> <div align="right">(William, Newtown A Level Centre)</div>

> "I liked history and documentaries…then at college the broadcast thing came through as what I really wanted to do. But not many places do Broadcast Journalism with a 50/50 split of radio and TV. So finding the right course was the main thing."
>
> <div align="right">(Jessica, Newtown A Level Centre)</div>

If the student wanted a relatively uncommon degree title and also had specific requirements for module content, the search could be complex. Hannah was looking for specific periods of study in the history topics, and Natalie wanted a theology degree that took a secular, rather than a religious approach:

> "As well as looking for a degree that had both history and Italian, I was looking for specific things in the content of the history…the Crusades, the Hundred Years War....it was hard to find some of them."
>
> <div align="right">(Hannah, Greenfields A Level group)</div>

> "I wanted a theology course that didn't have too much focus on ethics, and was not just for 'priests'. We could only find eight courses that had the content I was looking for and Mum and I visited all eight of them together."
>
> <div align="right">(Natalie, The Croft)</div>

Those who were looking for specific content were usually following a strong personal interest, but Megan was unusual in that she was the only participant to say that she was looking for topics that matched her academic abilities. She was searching for science-based degree courses that included a Foundation Year (because she did not have science A levels), but had a further requirement at topic level:

> "If UCAS Course Search showed that a course had a Foundation Year I then looked at the content and selected those with topics I knew I enjoyed and understood. If a course seemed to emphasise the topics I'd found particularly difficult *(at GCSE)* I rejected it at once."
>
> <div align="right">(Megan, Borough Sixth Form)</div>

It seemed that whilst Megan was optimistic about the second chance a Foundation Year might offer her, she had sufficient insight to recognise that it would not magically transform her previously weaker areas into strengths.

There was one participant in this category who placed particular emphasis on the facilities available for his course and the opportunities this could create, which appeared to be of greater importance to him than the actual content of the degree:

> "At Staffordshire they had quite a few platforms for multimedia work…and at Leeds Met they have a really good games company."
>
> (Ryan, Greenfields A level group)

7.2 (v) Family and friends.

The interviews had included many comments about the role played by family and friends, and several students had placed a very heavy reliance on just one or two universities suggested by friends. When choosing a key factor, some of these students said their most important influence was a need to live at home, but six students did attribute the major influence to their family or friends. Some provided explanations that suggested emotional factors may have been an element:

> "The main thing was to make my Mum proud. She got her nursing qualifications when I was at school and I went to her ceremony. It made me feel proud and I want to do the same for her."
>
> (Joshua, Greenfields BTEC group)

> "When my best friend from high school got a scholarship to go a year early, when he was just seventeen, I just knew that I wanted to follow him there…and that was it!"
>
> (Christopher, Newtown Vocational Centre)

Both Joshua and Christopher had been heavily influenced in their course choice by narrowly-informed advice from a friend or parent, but Samantha and Laura, who also named family members as the key influence, had also carried out considerable independent research to inform their decision:

> "The strongest influence was my parents and if they wanted me to go there. They said it was up to me to choose courses and universities, but then we sat down with my list to talk it all through and pick my five for UCAS."
>
> (Samantha, Borough Sixth Form)

> "In the end my aunties were probably the most important influence. They both sent information and told me things that made me want to go to those two universities, but I have looked at the websites and been to the open days, and I talked with careers staff as well."
>
> (Laura, Greenfields BTEC group)

7.2 (vi) The 'feel' of the place.

Adam, Rachel, Liam and Jake all gave answers that emphasised the 'feel' of a university, itself, and referred to the importance of time spent on campus or the unfiltered views of students, though Liam's experience demonstrated that unless this was also underpinned by factual research, reliance on emotional responses could be a risky strategy:

> "The feel of the university is the biggest influence on my decision about Keele *(his first-choice university).* I go with my gut…once I'd seen Keele it was YES! I've been there three times and Derby *(insurance choice)* twice now."
>
> (Adam, Newtown Vocational Centre)

> "Well I suppose the main thing was whether I liked the environment. I initially wanted London but went off that as they didn't feel like universities…they're not on a campus. It was visiting other universities that made me want to go away…so, whether I liked the environment, and asking students on my course how it was."
>
> (Rachel, Borough Sixth Form)

> "The atmosphere. I only wanted to apply to the two I could see myself in, but school said I should choose five. I was still doing research after I applied. I only got one offer and I didn't like it there, so I'm not going now. I'd rather pay more *(i.e. the new £9,000 tuition fee starting the following year)* for something worthwhile than less for something that doesn't feel right."
>
> (Liam, Borough Sixth Form)

> "Gut instinct. Some universities seem too eager with their contacts…like a net to catch you in. Social life and satisfied students are very important, so I looked for reliable, unbiased views and kept the universities that were liked by their students."
>
> (Jake, Borough Sixth Form)

David and James also spoke about the 'feel' of a place, but they both spoke about the importance of city locations, and appeared to be referring to the cities as a place to live, rather than the university itself:

> "The main influence was going there and seeing the place. I like both Sheffield and Liverpool as cities. I knew from my older brother the universities wouldn't take me with a BTEC but *(Sheffield)* Hallam and *(Liverpool)* John Moores both made me offers."
>
> (David, Greenfields BTEC group)

> "The place. I liked the idea of living in a city and was attracted by London, but then I went to York for a weekend with my girlfriend and we really liked the city...and it's convenient to live there. I only saw the university when they asked me to an interview, and it was a coincidence that York had good standing for the course."
>
> (James, Greenfields A level group)

Although David and James shared a key factor in city location, they were very different in their knowledge of the universities. David went to open days with his mother before he actually applied, whereas James applied to York without ever seeing the university, which is one of the plate-glass, campus universities, and is therefore outside of the city itself.

7.2 (vii) Students who fell outside the key factor categories.

Of the remaining students, there was only one who had a clear single factor. Melissa, despite having made extensive use of league tables, said that entry requirements were the most important influence:

> "Entry requirements were a massive deal for me right from the start because I didn't work hard enough for my AS Levels and so didn't get the grades I could have."

> (Melissa, The Croft School)

To put this in context, Melissa's predicted grades at A level were AAB, which would still be regarded as very high by most UCAS applicants, but many of her peers were expected to achieve three A* grades and she would have been aware that admissions tutors at the most prestigious universities might expect this level of achievement. Melissa's challenge had been to find highly rated universities that would consider something less than three A grades.

The remaining four students, Mathew, Emma, Olivia and Georgia, did not feel able to single out just one factor, though all four of them had referred to a number of influences, including websites, open days, family suggestions and, in the case of Olivia and Georgia, league tables.

7.3 Summary.

The findings indicated that the factual answer to the first part of Research Question 3 (How did students generate a longlist?) was that most of the students did this by searching within parameters determined by the factor they regarded as most important in a university, such as being close to home, or having a high league table position. This factor influenced the strategies for finding universities, and had an impact on the number and the type that were longlisted. It therefore also provided an answer to the second part of Question 3 (Which universities did they include?). Those who wanted to be close to home considered only the most local. Those who were status-aware concentrated on the RG94-universities. Those who wanted specific course content included those with the best match to their criteria. Those who said that friends

or family were most important longlisted only the universities that had been recommended. For those students who said 'the feel' of a place had been most important, some looked at cities or universities they already knew, whilst others searched by criteria they felt would identify the right type of university, such as campus locations or good social life.

It must be said that Research Question 3 had assumed, (based on the research tools trial and the current literature) that students *would* generate a longlist: the findings showed this assumption was not entirely correct. Some students considered so few universities that the concept of a longlist from which they could then choose was meaningless, and some would only have been able to complete all five lines on the application form by making more than one application to the same university. This pattern of behaviour was evident in the colleges but absent in the sixth form cohorts, where even the shortest list had nine universities. However, this generalisation masked considerable differences within the colleges, where some, particularly in the A level groups, had behaved in a way comparable to the sixth formers.

## Chapter 8: The shortlisted universities.

Introduction.

This chapter presents findings that are pertinent to Research Question 4 (How did the students select their shortlist, and which universities did they include?). Beginning with the card-sort data from Task 1, where the cards assigned to Category 1 formed the shortlists of each student, the chapter first considers the position of those who did *not* follow the conventional pattern of applying for five courses at five different universities. Descriptive and inferential statistics then explore associations between this non-conventional behaviour and two other factors: a) the ecosystem focus of the 'most important influence', and b) type of cohort. The chapter then considers the percentage of shortlisted universities in each cohort that were RG94-universities, and explores differences in understanding of relative status. This section of the chapter ends by identifying the actual universities in the shortlists. At cohort level, the choices reflected the continuing impact on decision making of two themes: a need or preference to remain close to home, and the desire to enter a high-status university.

The chapter then turns to the preference data produced by card-sort Task 3. The preference rankings given by each student to their longlisted universities are used to calculate any degree of adjustment that was made when moving from longlisting to shortlisting. A student who applied to their 'top five' preferences would have made no adjustment, whilst those who shortlisted universities that would not have been in their 'top five' had adjusted preferences. The responses to Interview Question 3 (Can you talk me through the reasons for choosing some of these universities and discarding others?) are then used to explore the shortlisting process.

8.1 The number and type of universities shortlisted.

The UCAS application form allows a maximum of five course choices and does not stipulate whether these should be at the same or different universities, but the conventional approach is to choose five *different* universities, as this should maximise the chance of receiving offers and gaining a place. Despite this, seventeen students (30%) applied to fewer than five universities which resulted in a total of only 250 universities being shortlisted instead of the 280 if all 56 students had applied to five universities (see Figure 8.1 *overleaf*).

Figure 8.1 The number of universities shortlisted by each of the 56 students.
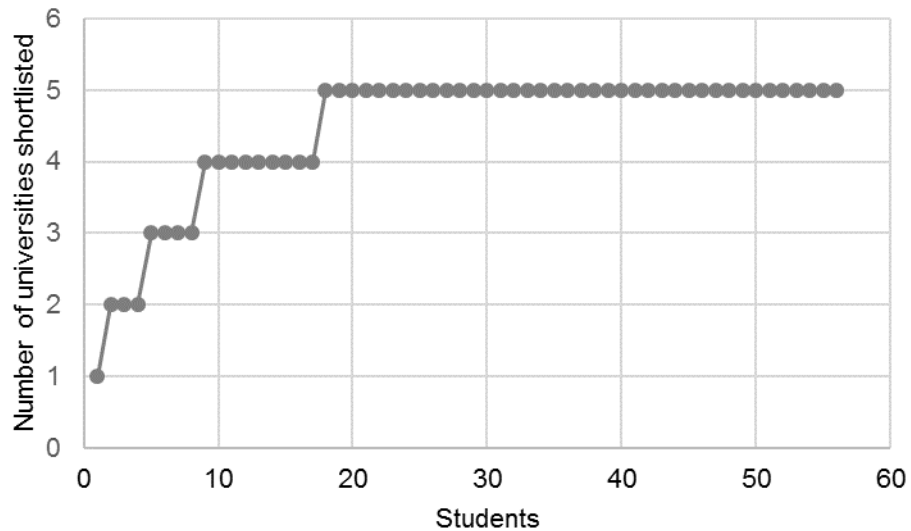
Of the seventeen students who did not apply to five universities, nine had made four choices. This behaviour was usually explained as the absence of any fifth-choice that the student felt was suitable. Comments often conveyed the impression that four courses was felt to be sufficient, and that choosing a fifth simply because the UCAS form allowed five choices was unnecessary.

The eight students who applied to only one, two or three universities would appear to have been taking a considerable risk of not obtaining a place, but all had expressed a need or desire to continue living at home, which restricted their choices to those universities within easy daily travel distance. Jade, Katie and Christopher had further narrowed their options by considering only the one or two universities recommended by friends already studying there, and Amy and Dan had applied only to the three universities where siblings or cousins already studied. Elizabeth referred to the support and advice from her fiancé in the decision to apply only to the two most local universities, and Alexander said that being able to continue his current employment at a local gym was essential. It seemed that these eight students had been strongly influenced by factors in the micro- or mesosystems, and this was confirmed by the fact that all eight had answered Question 5 ('most important influence') by saying proximity to home, family members or friends. Exploring this theme further, when the influences cited by all seventeen of those who had applied to fewer than five universities were compared, it transpired that only two of the seventeen had named a most important influence that reached into the exo- or macrosystems (see table 8.1 *overleaf*).

Table 8.1 Ecosystem-focus of 'most important influence'.

Micro- or mesosystem influences			Exo- or macrosystem influences		
Living at home	Living close to home	Friends or family	League tables	Course details	Other: (Unistats)
9	3	3	0	1	1

Note: data for just the 17 students who applied to fewer than five universities.

This data suggested there might be an association between the ecosystem in which the most important influence was located, and the adoption of either conventional (i.e. five choices at five universities) or non-conventional applicant behaviour.

Investigating the 'most important influences' for the 46 students who had named an influence that could be clearly defined by ecosystem further supported this. Casting this data as a 2 x 2 table showed that the majority of those who behaved 'conventionally' had named an influence that was exo-focussed (see Table 8.2).

Table 8.2 Association of 'most important influence' and shortlisting behaviour.

	Micro- or mesosytem-focus *(living at home, close to home, family and friends)*	Exo- or macrosystem-focus *(league tables, course details, entry requirements, Unistats)*
Five universities chosen	8	21
Fewer than five universities chosen	15	2

Note: data for just the 46 students whose influence could be categorised within an ecosystem.

Testing this data for association between 'most important influence' and shortlisting behaviour produced a result that was significant at p<0.001 (using Chi-square, X^2 = 15.76, with *df* = 1). This confirmed a strong association between ecosystem focus when looking for universities, and conventional or non-conventional behaviour.

8.1 (i) Making multiple applications to the same university.

Some of the students who applied to fewer than five universities had still used all five lines on their UCAS form by making more than one application to the same university. Sophie, Stephanie and Rebecca had all chosen five courses at four universities, and Amy chose five courses at three universities. None of these students

said anything that explained why they had done this, or suggested they had considered the advantages or disadvantages of making multiple applications. Christopher provided an extreme example of this, by choosing five courses in the same department of just one university. He explained that one of the courses was his favourite, and the others were included as 'back up'. Christopher said that he had not discussed his application with any of the college staff, and he seemed to have a poor understanding of how the admission process worked.

8.1 (ii) Cohort differences in the number and type of universities shortlisted.

When the data was broken down at cohort level, there appeared to be differences between cohorts in both the number of universities included in the shortlists and the number of these that were members of the RG94-universities (see Table 8.3). Those who had applied to fewer than five universities were almost entirely studying in the colleges, particularly in the BTEC cohorts, where students who had followed the conventional route of applying to five universities were in the minority. Amongst the A level students, applying to five universities appeared to be the norm, especially in the school sixth forms (see Table 8.3).

Table 8.3 Number of universities shortlisted (RG94-universities in brackets).

	Newtown Vocational Centre	Greenfields BTEC group	Greenfields A level group	Newtown A Level Centre	Borough Sixth Form	The Croft School
Number of universities	1 (0)	3 (0)	4 (0)	2 (0)	4 (1)	5 (4)
	2 (0)	3 (0)	4 (0)	4 (1)	5 (1)	5 (5)
	2 (0)	4 (0)	5 (0)	5 (0)	5 (2)	5 (5)
	3 (1)	4 (0)	5 (0)	5 (1)	5 (3)	5 (5)
	3 (0)	4 (0)	5 (0)	5 (1)	5 (3)	5 (5)
	4 (0)	4 (1)	5 (1)	5 (2)	5 (4)	5 (5)
	5 (0)	5 (0)	5 (3)	5 (4)	5 (4)	5 (5)
	5 (0)	5 (0)	5 (3)	5 (4)	5 (5)	5 (5)
	5 (0)	5 (1)	5 (5)	5 (4)	5 (5)	
	5 (3)		5 (5)		5 (5)	

Because the UCAS process restricts the maximum number of choices to five, there was very little variation in the number of universities shortlisted. The extremely high number of tied scores would have made tests such as Kruskall-Wallis or Jonckeere's, which use individual student's scores, inappropriate. However, there did appear to be strong similarities in behaviour pattern within the two BTEC cohorts, the two college A level cohorts and the two sixth form cohorts. Casting the data in a 3 x 2 contingency table that compared type of educational environment with conventional or

non-conventional behaviour, provided a legitimate and meaningful way to test the significance of this apparent association (see Table 8.4).

Table 8.4 Association between cohort-type and shortlisting behaviour.

	BTEC students	College A level students	Sixth form students
Five universities	7	15	17
Fewer than five universities	12	4	1

Testing this data produced a result that was significant at p<0.001 (using the Chi-square test of association, $X^2 = 15.67$, with $df = 2$). This showed a clear association between cohort *type* and the occurrence of conventional or non-conventional behaviour. The data in Table 8.3 had also suggested a link between cohort type and the number of RG94-universities shortlisted. Casting that data as a 3 x 2 contingency table that split the shortlisted universities into RG94-universities and 'all other universities' demonstrated a stark contrast (see Table 8.5).

**Table 8.5 Association between cohort-type and applying to RG94-universities.**

	BTEC students	College A level students	Sixth form students
RG94-universities	6	34	72
All other universities	66	55	17

Testing this data produced a result that was significant at, and beyond, p<0.001 (using Chi-square, $X^2 = 87.18$, with $df = 2$).

Interpreting these two sets of results in terms of the thesis, they confirm firstly that the type of 16-19 education a student experienced was associated with the type of UCAS application they submitted. BTEC students often made applications that did not maximise the opportunities for getting a place at university, since the number of offers received depends in part on the number of applications made. Secondly, the very strong association between cohort type and applications to RG94-universities confirms the disparity in progression that is already known to exist.

A clear representation of cohort differences in the number of applications to RG94-universities could be seen when the data was presented graphically to show a percentage split between those groups and applications to all other UK universities (see Figure 8.2).

Figure 8.2 Percentage of RG94-universities in the shortlists.
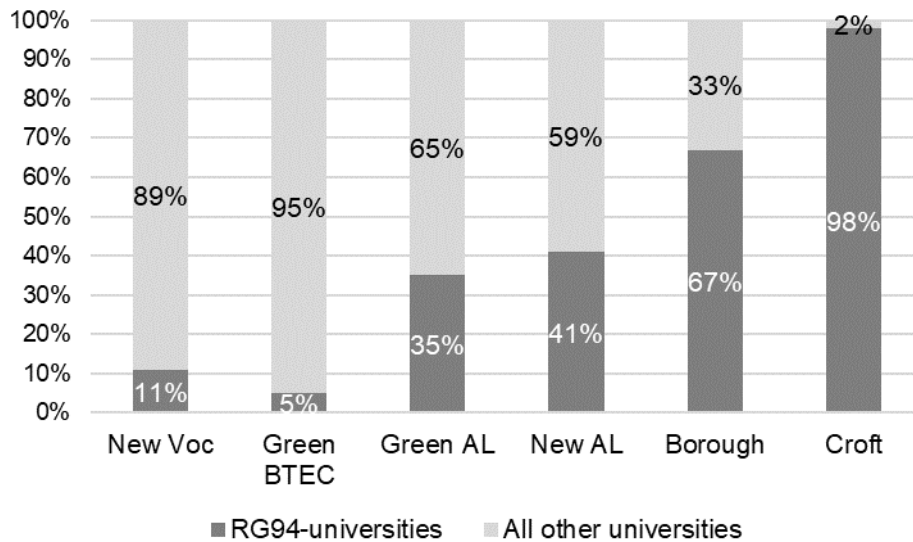
Whilst this relative percentage data might give an impression that students in BTEC cohorts were avoiding prestigious universities, interview comments did not support this interpretation. In the BTEC cohorts there were just six applications in total to RG94-universities. Bethany, Chloe and Joshua had all included Manchester as one of their choices, and interview comments gave no indication they had been aware of the disparity in status between this university and their other choices; it was simply a local university that offered their course. The remaining three applications were all made by Benjamin, who was applying for politics and philosophy, a subject combination that is offered in many of the Russell Group universities. He did not seem to have realised that this course was an unusual choice for a student progressing from a BTEC, and said that Liverpool, Sheffield and Reading universities all listed BTEC as an acceptable qualification, though he later discovered that this did not necessarily mean they would regard it as a suitable entry to politics and philosophy. The six BTEC applications to RG94-universities appeared, therefore, to have been made with no understanding that these universities were in any way different from other choices. Amongst the BTEC cohorts, there were just two students who made any comment suggesting some understanding of relative status, and both were couched in terms of entry requirements

rather than a broader view of reputation or hierarchy. David said that he had not applied to Manchester University because his brother did not get a place there despite having three good A levels. Daniel had revealed an awareness of status during the first card-sorting task, when he described Sheffield Hallam as being 'a Met' (i.e. similar to the Metropolitan universities of Leeds or Manchester). Daniel did not explain where this term had come from, but commented that he was an 'average' student, so knew that a 'Met' was best for him.

Both of the college A level cohorts contained some students who had focussed on RG94-universities and were clearly aware that their choices carried a relatively high status. At Newtown A Level centre, Natasha, Georgia and Andrew all said that tutors or teachers had suggested some universities that had 'good reputations' for their subject, and all three had used league tables to check their choices before applying. At Greenfields, both Lauren and Hannah were in the Oxbridge Group, but their knowledge of reputation had pre-dated coming to college. Lauren said her GCSE physics teacher had told her to look at 'universities like Imperial' and Hannah said she had discovered which were the 'good' universities at age twelve, when her brother went to Cambridge. Amongst those college A level students who did not include any RG94-universities, there was no evidence to suggest active avoidance of such institutions, and those who included one or two prestigious universities seemed, like the BTEC students, to be unaware of the disparity in their choices. It appeared that many of the college students had only limited awareness of the existence of a hierarchy amongst universities.

Applicant behaviour at Borough, the state sector sixth form, appeared to be more status-oriented than in the colleges. RG94-universities formed the majority of the shortlisted universities, and most students spoke directly about the importance of reputation. Two students had included only one such university, but explanations were offered in both cases: Megan was searching for courses with a Foundation Year and Liam was focussing on acting courses, both of these choices would have ruled out many prestigious universities. Where students had chosen both RG94-universities and other, less prestigious, universities, comments were often made about the importance of finding courses that offered a range of entry requirements, suggesting that status was understood, but tempered by knowledge that predicted grades may not be sufficiently high for the most prestigious universities.

At The Croft, the focus was almost entirely on the RG94-universities, and there was only one university shortlisted that was not in either group. Melissa had included Keele, an institution that does not belong to any of the groupings, because it had slightly lower entry requirements and her AS grades had been disappointing.

Overall, whilst it was clear that many students had actively selected high status universities, there was very little evidence of students avoiding such universities.

8.1 (iii) The universities that were shortlisted by each cohort.

The 250 universities that had been included in the shortlists contained many replications, and there were 72 *different* universities represented in total. When the data was presented by cohort group, it was clear that the desire expressed by many of the college students to stay close to home had resulted in a heavy reliance on the large, post-92 universities in the north of England, particularly amongst the BTEC students. College A level students had included more universities that were not local, but they tended to be RG94-universities, chosen by those who were status-aware. The Borough students, who had often talked of moving away from London and produced geographically diverse longlists, had kept many of these universities in their shortlists. At The Croft, the shortlists simply reflected status, which was in keeping with everything the students had said about geographical location being unimportant (see Table 8.6 *overleaf*).

Table 8.6 Universities shortlisted by each cohort.

| Cohort	Universities in the cohort shortlists	Times listed
Newtown Vocational Centre	Edge Hill and Salford.	6
	Central Lancashire.	5
	Chester, Keele and Manchester Metropolitan.	2
	Bolton, Derby, Huddersfield, Kent, Leeds Met, Liverpool, Liverpool John Moores, Manchester*, Northampton, Reading**, Sheffield* and Wolverhampton.	1
Greenfields BTEC group	Liverpool John Moores.	7
	Sheffield Hallam.	6
	Manchester Metropolitan.	5
	Leeds Metropolitan.	4
	Salford.	3
	Huddersfield and Manchester*.	2
	Chester, Cumbria, Edge Hill, Greenwich, Huddersfield, Central Lancashire and York St John.	1
Greenfields A Level group	Manchester Metropolitan.	6
	Leeds Metropolitan.	4
	Leeds*, Liverpool John Moores, Nottingham Trent, Sheffield* and Sheffield Hallam.	3
	Bolton, Salford, Staffordshire.	2
	Aston, Central Lancashire, Chester, Cumbria, Durham**, Edge Hill, Edinburgh*, Goldsmiths**, Imperial College*, Liverpool*, Manchester*, Oxford*, St Andrews**, Surrey**, Warwick* and York**.	1
Newtown A Level Centre	Manchester*, Manchester Metropolitan, Salford, Central Lancashire.	3
	Birmingham*, Bristol*, Goldsmiths**, Kent, and Sheffield*.	2
	Bangor, Brighton, Cambridge*, Chester, Cumbria, Durham**, Gloucester, Kingston, Leeds Metropolitan, Lancaster**, Leeds*, Lincoln, Liverpool Hope, Liverpool John Moores, London South Bank, Queen Mary**, Sheffield Hallam, Strathclyde and York**.	1
Borough Sixth Form	Nottingham*.	4
	Birmingham*, Bristol* and Southampton*.	3
	Essex**, Goldsmiths**, Kingston, Nottingham Trent, Oxford* and UCL*.	2
	Bath, Brunel, City, East London, Exeter**, Greenwich, Hull, Imperial College*, Keele, Kent, Leicester**, Loughborough**, LSE*, Manchester*, Northampton, Queen Mary**, Rose Bruford, Royal Holloway**, Surrey**, Sussex**, Thames Valley, University of the Arts, Warwick* and Westminster.	1
The Croft School	Durham**, Edinburgh*, Oxford* and UCL*.	4
	Cambridge* and Exeter**.	3
	Bristol* and York**.	2
	Bath**, Cardiff*, Glasgow*, Imperial College*, Keele, King's College*, Lancaster**, Manchester*, Newcastle*, Sheffield*, SOAS**, St Andrews**, Surrey** and Warwick*	1

8.2 Adjustment scores: the relationship between preference and realism.

In card-sort Task 3, the students rank ordered all of their longlisted universities in terms of what their preferences *would* have been, had it been a realistic option to apply to *any* of the universities they considered (in other words, if issues such as entry requirements, costs, distance from home or course details had *not* ruled out a longlisted university from further consideration). The preference data provided a way of exploring quantitatively the extent to which students may have adjusted their personal preferences when making their UCAS choices. The first step in using the data was to calculate an adjustment score for each participant, based on the premise that a participant who shortlisted the five universities that were their five top preferences had made no adjustment, whilst those who included universities that had been outside their 'top five' were adjusting their personal preferences to take account of criteria they deemed more important.

As an example, Bethany shortlisted just three universities which she had ranked as her 1st, 2nd and 3rd preferences, therefore she had made no adjustment in her shortlist choices and was assigned a score of zero. Olivia shortlisted five universities that she had ranked as her 1st, 4th, 5th, 8th and 10th preferences, which meant that two of her universities had reached the shortlist despite being outside the top five. One of Olivia's universities had climbed three places to reach the shortlist and the other had climbed five, and summing these gave her an adjustment score of eight.

Applying this calculation to all 56 students showed that fifteen had made no adjustment, shortlisting only the top universities on their preference list, and the remaining 41 had shortlisted at least one university that was not a top preference, with some choosing all five from lower preferences. Scores ranged from zero to 29, with a median score of 4.5, and a semi-interquartile range of 14 (25th percentile at 0 and 75th percentile at 13). Large departures from initial preferences were therefore relatively unusual, and only two students had a score above twenty (see Figure 8.3 *overleaf*).

Figure 8.3 Distribution of adjustment scores for all 56 students.
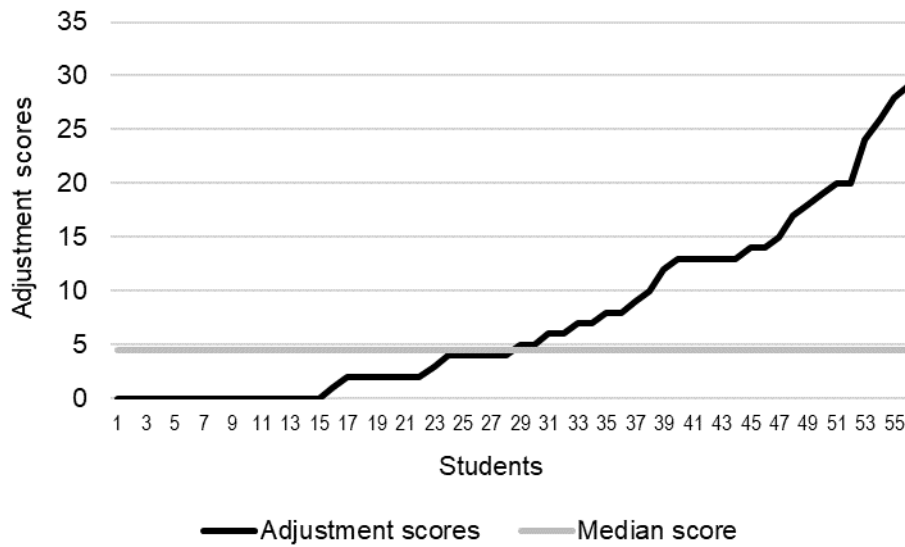
Presenting the individual adjustment scores by cohort showed that all of the state sector groups had some students who made no adjustment, simply making their top preferences their shortlist. Every cohort also had at least one person with a score in double figures. Higher adjustment scores did seem to be associated with A level students, but the data did not appear to have such large differences between cohorts as had been seen in some of the earlier data sets (see Table 8.7).

Table 8.7 Adjustment scores by cohort.

	Newtown Vocational Centre	Greenfields BTEC group	Greenfields A level group	Newtown A Level Centre	Borough Sixth Form	The Croft School
Adjustment score	0	0	0	0	0	2
	0	0	0	0	0	4
	0	2	0	2	2	5
	0	4	0	4	7	6
	0	6	2	5	8	13
	1	7	4	8	12	14
	2	9	13	10	14	15
	3	13	18	13	24	20
	4	17	19	26	28	
	13		20		29	

Testing this data for difference between cohorts gave a result that was not significant (using Kruskall-Wallis, KW = 9.10, with *df = 5*). Testing each cohort for goodness of fit to the whole sample distribution produced one significant result. This was for Newtown Vocational Centre, where the test result was significant at p<0.01 (using Kolmogorov Smirnoff, D = 0.625, with *n* = 10).

Interpreting these results in relation to the thesis, they indicate firstly that the amount of adjustment a student made was not related to the type of cohort they were a member of. Secondly, they show that the behaviour of any individual could not usually be predicted from a knowledge of which cohort they belonged to. Only at Newtown Vocational Centre did the goodness of fit test indicate that student behaviour had departed significantly from that of the whole sample. Most of the students in this cohort had scores that showed little or no adjustment. However, it should be noted that this cohort contained the four students who had considered fewer than five universities even at the longlisting stage, leaving little scope for any adjustment of preference at the shortlisting stage.

8.3 Reasons for discarding or selecting universities.

At the shortlisting stage the 'most important influence' continued to be a strong determinant of behaviour. This was particularly true of those who had stated micro- or mesosystem influences. When the search for universities was driven by proximity to home, or family and friends, the shortlist appeared to have been determined by discarding only. The eventual 'selection' was there by default rather than active choosing. Lucy and Sarah both provided examples of this:

> "Well, I crossed off the ones that were too far away, and these two *(pointing to the name-cards)* had no course that stood out, really. I visited this one *(pointing again)* and didn't like it, so that just left four."
>
> (Lucy, Newtown Vocational Centre)

> "When I checked some of them were just too far away, and some had courses that were health-based, which isn't what I want. So that just left these four."
>
> (Sarah, Greenfields BTEC group)

Lucy appeared to be happy with the four courses she had applied for, but Sarah, at a later stage in the interview, revealed that she did not even like one of her 'choices'. Neither of them had considered looking for additional courses, even though both had one line of their application form unfilled.

Explanations for why a university had been selected or rejected at the shortlisting stage were often specific to each university, for example, the same student

might say they had discarded one university because the facilities did not meet expectations, and another because the course content was not quite as expected. Distance from home was cited as the first 'filter' by many of the college students. Three other topics that occurred frequently were: a) entry requirements, b) failure to meet expectations, and c) practical difficulties that made a university unsuitable or inaccessible.

8.3 (i) Entry requirements.

Entry requirements were frequently cited as a reason for selecting or discarding a university at the shortlisting stage, often because they were too high, but sometimes because they were too low. Some students discovered that they had been aiming too high when they first searched for possible universities, and this could result in a high degree of adjustment once entry requirements had been checked:

> "I really loved Southampton, but it turned out to want three grade A's and I know I won't get that."
>
> (Jessica, Newtown A Level Centre)

High entry requirements did not necessarily result in a university being de-selected, as some students made it clear they had shortlisted at least one university that was an aspirational choice. Olivia, who rejected one of her favourite longlist universities (a Russell Group member) because the points needed were too high, none the less included in her UCAS application a 1994 Group university that she realised was still aspirational:

> "I went to the open days at all of the universities I applied for, and the one that I've made my first choice was really nice and friendly, though the grades are high. But I included another one because the points were low. I've gone for a mix of what I want and realism."
>
> (Olivia, Newtown A level group)

A willingness to replace aspirational choices with realistic ones was sometimes attributed to advice from the school or college that some universities would be out of reach. Danielle, for example, had clearly allowed realism to override preference when selecting her shortlist universities:

> "When I looked at the grades being asked by my top five preferences I found that four of them were making A* offers, which was not realistic for me."
>
> (Danielle, Borough Sixth Form)

In the end, only one of Danielle's top five preferences was included in her UCAS application, and she had an adjustment score of 24, one of the highest. Advice from teachers sometimes appeared to inhibit the decision making process:

"I did have Manchester and Liverpool in mind, but my teachers told me the points would be out of my reach. So in the end I just applied to two I already knew about and two that teachers suggested."

(Jack, Greenfields A level group)

Students who knew that their GCSE grades made them a high achiever within their school or college were not immune from concerns about entry requirements. Lauren was a member of the Oxbridge Group at Greenfields, had a good understanding of status and reputation, and knew the league table positions of all the universities she considered, but she clearly felt that applying only to the most highly rated universities would be a risky strategy:

"It's all about tactics, it was about balancing grades and reputation. There's no point just applying to ones you might not get the grades for."

(Lauren, Greenfields A level group)

Entry requirements sometimes become a deciding factor because they were felt to be too low. Alice spoke of the need to avoid low grades after she realised that the entry requirements stated in prospectuses and on websites did not necessarily relate to the grades obtained by students who ended up on the course. Alice had made use of an elder sibling already at university to check on actual grade offers:

"Teachers did say which universities were hard to get in to, but I asked my sister which of her friends had gone to particular universities and what A level grades they had actually got. That influenced me a lot and I didn't apply to any where people with low grades had got in."

(Alice, Borough Sixth Form)

8.3 (ii) Failure to meet expectations.

Another reason for initially popular institutions to fail to reach the shortlist was a visit to the university that did not meet expectations. Poorly organised or unwelcoming open days had a strong, negative impact on perceptions and decision making behaviour. A poor open day experience did not necessarily deter applications however, particularly where a participant's choice of universities was limited by the need to stay at home. Jade was not impressed by the open days at either of her universities, but she still applied to both:

"My first open day experience was quite poor, as I'd expected more than what they offered. The second one was actually much the same, but I'd expected less that time. They all want to show you the gym, sports hall and night club, but I'm just not bothered about all of that."

(Jade, Newtown Vocational Centre)

Natalie said she had crossed off two universities from her longlist because the open day experience was not good:

> "One of the Open Days I went to was poorly organised and created a bad impression, and one was at the weekend so not a good experience."
>
> (Natalie, The Croft)

However, despite these concerns, Natalie did shortlist another university that had also disappointed her at the open day. Having failed to find five universities that completely met her expectations, her fifth choice was the most suitable of those still on her longlist.

Open day experiences were sometimes a matter of personal response to what had been offered. There were examples of students who 'loved' a university at the open day and others who 'hated' the same university after visiting. These comments often seemed to be based on an emotional reaction to the atmosphere. When students referred to disappointment with facilities, these were usually fact-based comparisons. Ryan made the point that it was necessary to visit more than one university before such comparisons could be made:

> "At Manchester Met they just showed us rooms full of computers. I realised *(after visiting other, seemingly better-equipped places)* that they didn't seem to have shown us anything impressive in terms of facilities."
>
> (Ryan, Greenfields A level group)

8.3 (iii) Practical issues: geography and costs.

Whilst distance from home was the most frequently cited key factor driving longlist generation, there were some students who found that geographical accessibility (rather than simply distance travelled) became an issue at the shortlisting stage. Bethany, who began by longlisting eleven universities that were relatively local, found when she investigated travel options that only three of them were realistic destinations:

> "For me, the time it takes to travel from home is crucial, so in the end I just applied to the three I can get to."
>
> (Bethany, Newtown Vocational Centre)

The issue of accessibility could also be a problem for London-based students, even though few of the Borough cohort had referred to distance from home as a factor during the longlisting stage. Samantha, who had chosen London universities as her top four preferences in the longlist, seemed to have assumed that the London universities would all be realistic destinations if she wished to remain at home, but found when she attended the open days that this was not necessarily the case:

> "One of the London universities that I really liked turned out to be such a long journey from home that if I went there I would need to live in halls."
>
> (Samantha, Borough Sixth Form)

Some students had problems at the shortlisting stage because of a poor knowledge of geography, rather than unexpected travel difficulties. For example, Jordan only realised

the distance between home and Wolverhampton when the university invited him for an interview, which he then did not attend.

There were few direct reference to finances as a determining factor at either the longlisting or shortlisting stage, but for those students who did raise the issue of costs, it had often been given a great deal of thought. Lauren's desire to enter a prestigious university was tempered by a strong awareness of costs:

> "I'm talking with the Student Loans Company to find out what I might be entitled to. I've checked the costs of fees and accommodation at all of the universities and also asked what bursaries might be available."
>
> (Lauren, Greenfields A level group)

Kirsty, despite having been educated at an independent school, knew that she would have to be financially independent at university:

> "I knew not to look at London because it's too expensive, but it turned out that Bristol is a very expensive city too, and both of the universities I liked in Scotland would have been four-year courses, which obviously costs more."
>
> (Kirsty, The Croft)

Students at The Croft often seemed aware of the incidental costs of university life, nicely summed up by Alexandra, who felt it was pointless going to London if she was not able to 'afford all the benefits' of being there. This awareness may have been a direct consequence of attending a fee-paying school where some activities would incur an additional charge. BTEC students, who frequently cited proximity to home as the most important factor in looking for universities, may well have had finance in mind, but no-one directly said this. The closest reference to the potential financial advantage of living at home came from Sophie:

> "One of the careers staff pointed out to me that a four-year business course where I can live at home will work out cheaper than a three-year course where I have to go away."
>
> (Sophie, Greenfields BTEC group)

On that basis, Sophie had included in her shortlist a four-year course at her most local university, which was just a bus ride away.

8.4 Summary.

The factual answer to Research Question 4 (How did students choose their shortlist and which universities did they include?) was that they chose the universities they liked the best, providing there was no reason to deselect them. However, this question had assumed that students would have longlisted sufficient universities to have a choice at this stage, but for some the longlist simply became the shortlist.

Some students applied to fewer than five universities, and they often described a reliance on hot reasoning and a strong focus on sources of advice in the micro- or mesosystem. These students had usually made no adjustment to their preferences because they considered so few universities even at the longlisting stage that there was little, or nothing, to adjust. They applied to the universities they 'liked' but this was not based on comparing and choosing. This pattern of behaviour did not seem to be in the interests of the student, but it would be wrong to assume that this was a 'bad' decision making style. Some of these students referred to personal circumstances that had restricted their options and, for them, the notion of longlisting then shortlisting would have made no sense.

Where students made an active choice of universities for their shortlist, the 'most important influence' continued to steer their decision making. However, factors such as entry requirements, failure to meet expectations, or practical difficulties in accessing the university, could result in a previously popular choice being discarded.

Applications to RG94-universities were strongly associated with the type of cohort. Amongst the BTEC students, some had recognised that their qualification might not be acceptable for certain universities, but there was very little evidence of real understanding of relative status. Sixth form students were most likely to be status-aware, particularly at the independent school.

Chapter 9: Conditional Firm and Conditional Insurance universities.

Introduction.

This chapter presents findings that are pertinent to Research Question 5 (What factors determined the student's final choice of Conditional Firm (CF) and Conditional Insurance (CI) universities?). It begins by identifying twelve students who were unable to make these choices because they had received insufficient offers. This is considered in relation to two common themes amongst these twelve students: a) stating a 'most important influence' in the micro- or mesosystems, and b) applying for courses that had additional entry requirements beyond the UCAS form. This section of the chapter ends by considering differences in interpretations of the meaning of a rejected application.

The chapter then moves on to explore the number and type of universities that had been accepted through UCAS. The impact of a desire to remain close to home, or to enter a high-status university, is considered at this final stage of UCAS decision making.

Drawing once again on the preference rankings generated by card-sort Task 3, the chapter then considers the extent to which students had chosen *preferred* universities as their CF and CI acceptances. Explanations are offered for the nineteen acceptances that would not have been in a student's 'top five' preferences.

The chapter then moves on to data generated in card-sort Task 4, in which students rated their confidence of gaining a place at each of the universities they had longlisted. The notion of the CI acceptance being a 'safe' insurance choice is then explored.

Finally, the chapter draws on responses to Interview Question 4 to explain how CF and CI choices were made. This revealed that some students continued to behave in ways consistent with their 'most important influence', but others modified their behaviour at this final stage of the process.

9.1 Students who did not have any offers from universities.

When students were researching, longlisting, and shortlisting their universities, they were free to make choices in a way that was independent of UCAS and the universities. At the CF and CI stage, however, decision making was suddenly determined by the behaviour of the universities, since a student could only proceed to this final stage if they held at least two offers of a place. At the time of the fieldwork, most had decided on their CF and CI universities, but twelve (21% of the sample) did

not yet have sufficient offers to make two choices. Seven of these students had not yet received any offers and so were unable to choose even a CF university.

Three of the seven, Jade, Katie and Bethany, had applied for nursing, choosing only two or three local universities. All three had one application outstanding, but had been rejected from their other universities without interview. None of the three appeared to have been aware that entry to a nursing course is highly competitive, and their direct experience or understanding of nursing as a vocation seemed to be limited. All three made some reference to lack of appropriate work experience as a factor in being rejected without interview, and Bethany said that she was already trying to remedy that, though none of the three appeared to fully understand that a vocational course applicant who cannot demonstrate knowledge and experience of the role of a practitioner has not met the entry requirements, and all three expressed the hope that their remaining application would be successful. Bethany, perhaps encouraged by her late attempt to gain work experience, expressed the hope that her application still outstanding at Manchester might be 'third time lucky' for her, seemingly unaware that entry to a Russell Group university was likely to be even more competitive than the post-92 universities that had already rejected her application.

Rebecca and James had also applied for vocational courses, Rebecca for primary teaching and James for social work. Both had received two rejections, both had failed to attend an interview at one of their universities, and both had two outstanding applications. Rebecca, whose choices were all post-92 universities, had begun to understand that she lacked the classroom experience needed for a successful application, but James did not appear to realise that his lack of experience might be an obstacle. He also did not appear to have understood that his chosen universities varied considerably in terms of their prestige and reputation, referring to the use of league tables to find universities that had 'good standing' for social work, but seemingly unaware that his UCAS choices ranged from 2nd place to 71st place in the subject league tables.

Christopher and Joshua had both taken a rather unusual approach to the UCAS application. Christopher's choice of five very similar courses, with the same entry requirements, in the same department, meant that he was likely to receive the same response to all five applications, a fact that did not appear to have occurred to him. Five offers would mean that he could choose the one course he really wanted, five rejections would leave him with nothing else to consider. Joshua's decision to apply for two media courses and two sport courses must have created difficulties in producing a strong personal statement that would convince admissions tutors in both subjects that he was serious about their course, but Joshua said nothing that suggested he

understood this. Joshua's application had been rejected by three post-92 universities but, like Bethany, he seemed unaware that Manchester, where he had an application still outstanding, might have even higher expectations than the universities where his application had already been unsuccessful.

9.1 (i) A focus on 'hot' reasoning amongst those who held no offers.

The seven students holding no offers had all responded to Question 5 by giving a 'most important influence' that emphasised micro or meso-focussed factors, or emotional responses. Jade, Katie, Bethany and Rebecca had all said they needed to live at home, Christopher was influenced by a friend, Joshua by his mother, and James said the 'feel' of the place was the most important. None had chosen an influencer that was rooted in 'cold reasoning' based on a search for comparative, factual information. This focus appeared to have restricted the options they had considered. Six of the seven had applied to fewer than five universities, five of the seven had used fewer than the median number of sources of information in card-sort Task 2, and only one of the seven had made any use of league tables. Six had used UCAS Course Search, but comments indicated this was often simply to find the codes for courses and universities they had already decided upon, rather than to find other options or make comparisons. This restricted search behaviour may have contributed to a poor understanding of the very competitive nature of some courses, the high expectations of admissions tutors, and the relative status of different universities. Together, these gaps in knowledge appeared to have placed them at high risk of receiving rejections.

9.1 (ii) A concentration on vocational courses amongst those who held no offers.

Six of these seven students had applied for courses with additional entry requirements. Joshua had been asked to submit a digital portfolio for one of his media courses, and admitted that he did not know what was expected. The five who applied for nursing, teaching or social work, had firstly to craft UCAS forms that would merit an interview, and then demonstrate that they had sufficient vocationally-relevant experience to understand the role of a practitioner and address their suitability for their chosen profession. None of these six students spoke of any specific planning or preparation that would have enabled them to meet these additional entry requirements.

This appeared to merit further investigation. In addition to these six students, there were eight others who had applied for at least one course requiring a vocationally-oriented interview, including auditions, presentation of a portfolio, or an aptitude test. All eight had received rejections or had applications still outstanding. Elizabeth had been rejected from one university without interview on the basis of her

portfolio submission, but had been made offers for both fine art and graphics courses after a group interview at her second university. Chloe and Holly had both applied for nursing and had just one offer. Chloe had one rejection and three applications outstanding. Holly had been interviewed by four universities, received three rejections and had one application outstanding. Liam had been rejected after audition by four universities and had just one offer, which had been made without audition, and he therefore did not wish to accept. Charlotte had received three rejections for primary teaching, had one offer, and one application outstanding. None of these five made any reference to support or guidance directed at the additional entry criteria required by their courses.

The three remaining students who had to meet additional criteria were all at The Croft, and all three of them described preparation for additional entry requirements. Louisa spoke of help to prepare for an engineering aptitude test at Oxford, though felt she had under-performed in the subject-based interview and was rejected. Georgina spoke of being guided towards books and websites that would help with her personal statement and preparation for the law aptitude test, resulting in three offers and two rejections. Melissa described help for medicine applicants that started as early as year 11, but despite this preparation she was still waiting to hear the outcome of her medicine applications, having received offers for her biomedical science applications (applications for medicine are capped at four, and applicants typically include one or more non-vocational courses in their UCAS form).

Overall, it seemed that interview courses were associated with a high risk of rejection even when there had been specific preparation provided by staff with a vocational course specialism, as at The Croft.

9.1 (iii) Differing interpretations of the meaning of a rejection.

When applications were rejected there was potential for learning from this experience, because university admissions tutors can be asked to provide feedback on unsuccessful applications. This did not seem to be universally known, and interview comments suggested that students interpreted rejected applications in one of two ways: a) by recognising that they had not sufficiently met the entry requirements, or b) by convincing themselves that they had been unlucky in some way.

Amongst those who had not yet received any offers, a good illustration of these two approaches could be seen by comparing the explanations given by Bethany and James, who had both received two rejections without interview. Bethany, in explaining her current situation, seemed to understand why she had not got a place at either of the universities that rejected her application:

> "I asked for feedback and they both said my application didn't show experience of the role of the practitioner. I'm doing some work experience now to put that right."
>
> (Bethany, Newtown Vocational Centre)

James did not appear to have asked for feedback, but whilst completing card-sort Task 4, which rated each UCAS choice for confidence of getting a place, he made the following comment:

> "I included **this** one *(as he placed the Goldsmiths College name card in Category 1 for confidence)* at the last minute, because I saw it had really low grades that I'm absolutely confident I can get…but *(shaking his head)* they rejected me without even an interview!"
>
> (James, Greenfields A level group)

James gave no indication of any understanding that if vocational courses ask for relatively low academic results, it usually means they are placing a high emphasis on other, non-academic criteria, such as relevant work experience, aptitude for the course and clear demonstration of an understanding of the role of the practitioner. He appeared to think that because the grade requirements were well within his reach, he was merely unlucky to be rejected on this occasion, and therefore still rated Goldsmiths as a university where he was 'certain' he could get a place.

Students who, like Bethany, said they had learned from feedback that they did not meet an essential entry requirement were unlikely to be able to resolve that within the current UCAS cycle. However, there was one example of a rejection making an immediate, positive difference. Charlotte, who had hoped for a mock interview at college but had been unable to arrange one, felt out of her depth at her first university interview:

> "When I got to my first interview I didn't know what to expect, I hadn't even thought about what to wear, and I got rejected, but from that I learned a lot of the criteria for doing well, so when I got to my next interview I knew what to say and even bought a new outfit. They gave me a place and even if that's the only place I get it will be fine."
>
> (Charlotte, Greenfields A level group)

Charlotte appeared to have reacted very positively to the rejected application, re-interpreting her first experience as a 'mock interview'. However, her first interview was at her second preference university and the successful interview was at her first preference. If the interview dates had been transposed, both the outcome and her reaction to it might have been very different, as this was her only offer. Students did not always learn from experience, however. Stephanie had applied for two courses (one of which had a creative, practical element) at the same university, and seemed puzzled that one course accepted her whilst the other did not:

> "I applied for two courses at Liverpool *(John Moores)* and I got an offer straight away from one of them and then a letter asking me for interview for the other. I didn't go to the interview, and then I just got a rejection for that course with no warning at all."
>
> (Stephanie, Newtown A level Centre)

Stephanie did not seem to appreciate that attending an interview is often an essential part of the admissions process for a practical or creative course and, although she had two offers so was able to accept a CF and CI university, she did not have any offers for the type of practical course she really wanted to follow.

9.2 The universities accepted as CF and CI choices.

There were fourteen students (25% of the sample) who had not yet made both their CF and CI decisions. This comprised the seven who did not yet have any offers, a further five (Chloe, Jack, Rebecca, Liam and Holly) who had only one offer so could make only a CF choice, and two students (Thomas and Melissa) who had not yet made their decisions. Thomas had five offers and was sure of his CF university, but he had not yet seen any of the other four, and said he would not choose between them until he and his father had managed to visit them all. Melissa was still waiting for decisions from her 1st and 2nd preference medicine courses, which would be her CF and CI if offers were made.

These omissions meant that producing a complete data table for the CF and CI universities was not possible, but the choices made by those who had received all of their UCAS offers suggested that the cohort-related preferences that had been apparent at the longlisting and shortlisting stages had continued through to this final stage. BTEC students were strongly focussed on local universities, college A level students more willing to travel, provided it was for a high-status university, and sixth formers favoured RG94-universities (see Table 9.1 *overleaf*).

Table 9.1 Universities chosen as CF and CI acceptances by cohort.

Cohort	CF universities	CI universities	Times chosen
Newtown Vocational Centre	Keele, Central Lancashire. Manchester Metropolitan and Salford.	Central Lancashire, Derby, Edge Hill, Kent, Leeds Metropolitan and Salford.	2 1
Greenfields BTEC group	Manchester Metropolitan. Greenwich, Salford, Sheffield Hallam and York St John.	Liverpool John Moores. Sheffield Hallam. Cumbria and Manchester Metropolitan.	4 3 2 1
Greenfields A level group	Bolton, Durham*, Imperial College*, Liverpool John Moores, Manchester Metropolitan, Nottingham Trent, Staffordshire and Warwick*.	Edinburgh*, Leeds*, Leeds Metropolitan, Manchester Metropolitan and Sheffield Hallam.	1
Newtown A Level Centre	Central Lancashire. Birmingham*, Goldsmiths College**, Lancaster**, Leeds*, Salford, Sheffield Hallam and York**.	Kent Bangor, Birmingham*, Chester, Liverpool Hope, London South Bank, Manchester Metropolitan and Salford.	2 1
Borough Sixth Form	Kingston. Exeter**, Essex**, LSE*, Nottingham*, Royal Holloway**, Surrey**, UCL* and Westminster.	Birmingham*, Brunel, Goldsmiths College**, Hull, Kent, Loughborough**, Manchester* and Nottingham Trent.	2 1
The Croft School	Bristol*, Durham**, Edinburgh*, Imperial College*, Oxford*, Sheffield* and UCL*.	Bristol*, Cardiff*, Edinburgh*, Exeter**, King's College*, UCL* and Warwick*.	1

Amongst the BTEC cohorts, the pattern of interest in local universities that had been evident throughout the fieldwork resulted in CF and CI choices that were almost exclusively in the north of England. The only two exceptions were Kent and Greenwich, and explanations were offered for both choices. Benjamin's acceptance of Kent was a forced decision because, with three rejections from Russell Group universities, he had no option but to accept Keele and Kent. Laura had three offers, two of which were from northern universities, but she had expressed an interest in Greenwich throughout the interview, having even written an additional source of information card in Task 2 to clarify that her interest in studying there had been fostered by her aunt, who lived close to the university. However, Laura had not yet confirmed her choices with UCAS, and

said there was a possibility she might switch her CF and CI universities, making Sheffield Hallam (which had been recommended by another aunt) her firm acceptance.

The college A level cohorts had CF and CI choices that covered a wider geographical area, but there was still a tendency to focus on the north of England. Universities that were distant from home were predominantly RG94-universities, and interview comments indicated that students were aware of the higher status of these universities. There were two exceptions, Bangor and Kent. Zoë had chosen Bangor for the course content and facilities, but Georgia's CI acceptance of Kent was a forced choice as she had no other offers, having been rejected by three RG94-universities

The Borough sixth formers had considered universities outside London at both the longlisting and shortlisting stage, but their CF choices were predominantly close to home, with only two that were any distance from London. Danielle, who chose Nottingham, had always said that location was not an issue, and Jake, who chose Exeter, had said from the start that he wanted to move away from London. The CI choices at Borough covered a wider geographical area, but every applicant who had at least one offer from a London university had made this their CF choice. It seemed that most felt they should *consider* a range of destinations but, when the final decisions had to made, most preferred to stay in London.

At The Croft, one of the CI choices was in the 1994 Group, but all other acceptances were in the Russell Group, which reflected the high level of awareness of status and hierarchy that was evident throughout the interviews with these students. Location had never been an issue.

When the CF and CI choices were split to show the percentage that were RG94-universities, cohort differences were even more evident than at the earlier stages of the decision making process. RG94-universities were absent in the BTEC groups, accounted for approximately one third of the college A level accepts, almost two thirds of the state sixth form acceptances, and all of the universities chosen at The Croft (see Figure 9.1 *overleaf*).

Figure 9.1 Percentage of RG94-universities that were CF and CI choices.
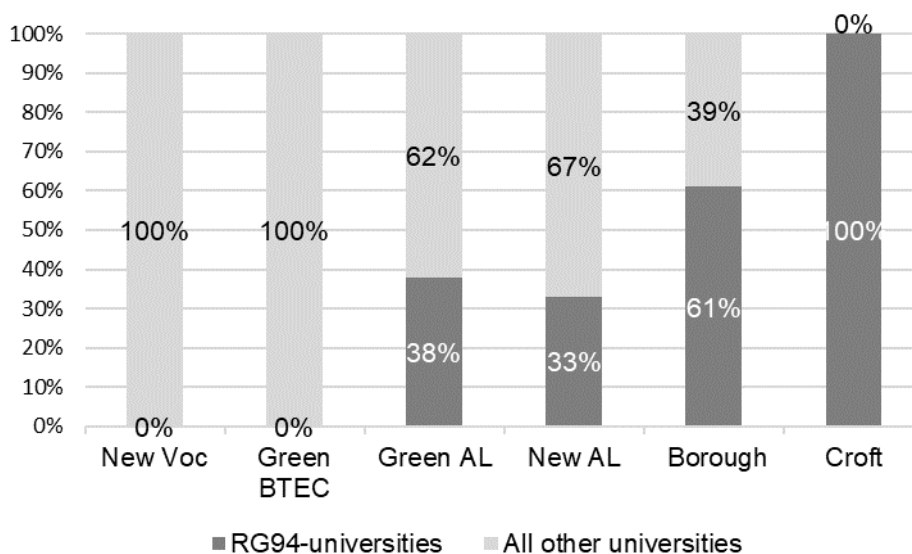
The appearance of the RG94-universities amongst the CF and CI universities was very dependent on the offers that had been received. Amongst the BTEC cohorts none of the applications made to these universities had resulted in an offer. Benjamin had already been rejected by all three of his RG94-universities. Bethany, Joshua and Chloe were all waiting for a response from Manchester, so there was still a possibility of a Russell Group university becoming a CF choice.

In the two college A level cohorts, approximately one third of acceptances were for RG94-universities. Three students, Lauren, Hannah and Natasha, made both CF and CI choices from these groups, having expressed an intention to enter a 'good' university throughout the interview. Olivia, Georgia and Andrew all had just one offer from RG94-universities, and all three made it their CF choice. Abigail and Matthew were unusual in having *two* offers from RG94-universities, but accepting Manchester Metropolitan, close to home and with lower entry requirements, as their CI university. Four students had not yet been able to make their CF or CI choices, but none of the outstanding decisions were at RG94-universities.

The school sixth forms had much higher levels of interest in the RG94-universities. At Borough, Alice, Danielle and Oliver, chose both CF and CI from these groups, and Samantha, Jake, Rachel and Holly made CF choices at RG94-universities. At The Croft, where 98% of all applications had been to RG94-universities, it was not surprising that all of the CF and CI choices were at these prestigious universities.

When students had offers from RG94-universities, they generally accepted them, only declining if they had more than two offers from prestigious universities and therefore had to make a choice. Applications to Oxford or Cambridge were a particular example of this. Oxford only appeared once in the list of CF and CI choices, but this

was because there had only been one successful Oxbridge application. The fifteen students who had longlisted either, or both, of these elite universities all ranked them as first and second choices with the exception of Georgina, who ranked Cambridge sixth and Oxford ninth and said that she had never been sure about Oxbridge, having doubts even the night before her interview at Oxford.

There was just one example of behaviour that did not fit the pattern of prestigious universities being preferred as acceptances. Joseph, at Borough sixth form had made a post-92 university his CF because it 'sounded good, like Oxford' and seemed wholly unaware that its league table position was more than 100 points below Oxford; his CI university was Goldsmiths College, a member of the 1994 Group.

9.3 The preference rankings for CF and CI universities.

The relationship between the CF and CI choice universities and the preference rankings that had been assigned in card-sort Task 3 confirmed that students were not always expecting to attend a 'favourite' university, with some accepting places that would not even have been in their 'top five' if their choice had been simply based on personal preference. There were only fourteen students (29% of those able to make a CF choice, 25% of the total sample) who had accepted as CF choice the university that would have been their first preference, with a further twelve (25% of those able to make a CF choice, 21% of the total sample) accepting their second choice as CF. Seven students had a CF university that had not been ranked in the top five preferences. The CI choices were even more likely to be associated with low preference rankings: only ten had been ranked first or second, and twelve were outside the top five (see Figure 9.2).

Figure 9.2 Preference rankings assigned to the CF and CI universities.
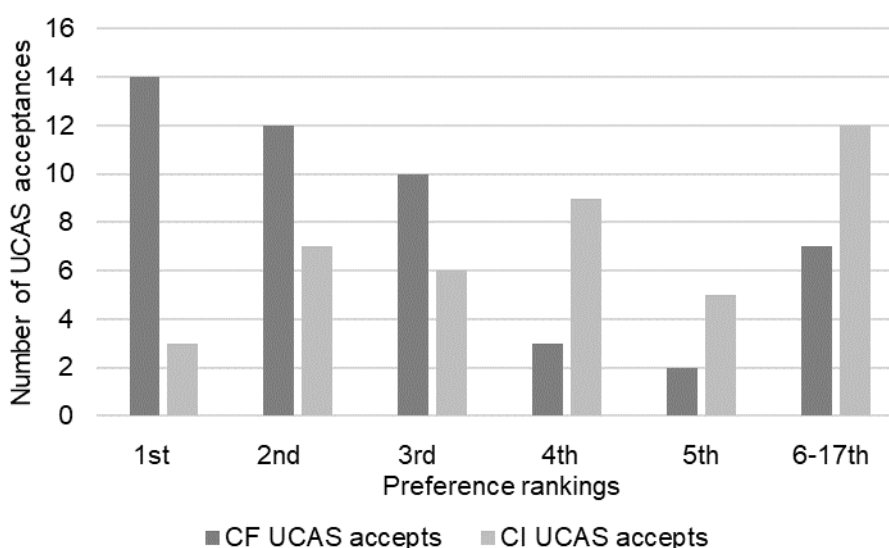
The nineteen universities accepted as CF or CI choices that would not have been in students' 'top five' preferences were mostly just outside this (four were 6th, five were 7th, six were 8th and three were 9th) though one of the CI accepts had been ranked 17th. Two main types of explanation were offered for less preferred acceptances. Some were 'forced' choices because universities with higher preference ratings had been inaccessible. Some were 'safe' insurance choices.

9.3 (i) 'Forced choice' acceptances.

'Forced choice' explanations could be further subdivided into those students who had realised at the shortlisting stage that their highest ranked preferences had entry requirements they would not meet, and those who had only realised that their choices were aspirational after universities had rejected their applications. Typical of the first of these subgroups was Danielle, whose preference rankings began: 1, Oxford; 2, Cambridge; 3, LSE; 4, Warwick. None of these were included in her shortlist after she checked the entry requirements. Her CF of Nottingham (7th preference) and CI of Birmingham (8th preference) were both Russell Group but had slightly lower entry requirements that she felt more confident of achieving:

> "Applying to my top four would just have been a waste, but my sister has given me some good points about Nottingham."
>
> (Danielle, Borough Sixth Form)

Jessica's preference rankings had favoured the Russell Group, with Southampton, Cardiff, King's College and Sheffield all in her top five, but she realised that a shortlist based simply on personal preference would be unrealistic. Jessica's eventual choice of CF was Nottingham Trent, which she had ranked 2nd preference, with Sheffield Hallam (7th preference) as her CI:

> "I was never going to get straight As *(shaking her head)*. Mum always had Nottingham Trent as a favourite and I liked it too, and when they gave me a one-to-one interview, which I really enjoyed, it made me want to go more."
>
> (Jessica, Greenfields A level group)

Students who had only realised after applying that their choices were aspirational included Emma and Holly, both of whom had received three rejections, which made the concept of choice redundant at this final stage of the UCAS process. Emma had to accept as her CI choice a university that she had not previously visited, and which she had rated as her 8th preference. In her case the situation was exacerbated by the late realisation that she had applied for a course that was taught at a satellite campus seventy miles away from the main university site, and was about the same distance from home as three higher preference universities which she had decided not to

shortlist because of their location:

> "I love Wales and there were three universities I looked at for my course but they were too far away. But now the one I've had to choose for my insurance turns out to be taught in Carlisle, which is also too far away."
>
> (Emma, Greenfields College BTEC group)

Holly had received only one offer, which was from Surrey (2nd preference) and she was happy to make this her CF acceptance, but with three rejections her only possible CI was Birmingham, where her application was still outstanding but which was her 11th preference.

There were just two examples that did not fit with the two main types of explanation described above. Both Sophie and Daniel had chosen a less-preferred CF when they did have offers from universities they had ranked as a higher preference. Sophie had been encouraged by a cousin to move away from home but, when it came to the CF decision, she followed the example of her brothers and chose Manchester Metropolitan, even though she said it was her 8th preference and she had an offer from her 1st preference:

> "I've made Manchester Met my first choice now. Both my brothers went there for finance and accounting, so even at school I thought I'd end up going there."
>
> (Sophie, Greenfields BTEC group)

Daniel, who had only considered the three universities where he had cousins already studying, had made Manchester Metropolitan (6th preference but the closest to home) his CF choice and Liverpool John Moores (5th preference) his CI, but he also had an offer from his 2nd preference, Salford. The explanation related to his earlier comment that a 'Met' would be best for him, and his understanding that while Salford did not have equal status to Manchester, neither was it 'a Met':

> "Manchester would have been my first choice, but I realised the grades would be too high. Salford was my second choice but it has high grades too and I'm not certain I could get in there."
>
> (Daniel, Greenfields BTEC group)

The post-92 universities that Daniel chose were both classified by him as 'Mets' and he felt confident that his BTEC profile would earn him a place.

9.3 (ii) The concept of a 'safe' insurance.

Since the UCAS process allows two accepts, and the UCAS terminology describes these as 'Firm' and 'Insurance', it might be expected that students would choose a CI university that was asking for lower grades than their CF choice. This would suggest that their confidence of achieving a place at the CI university may be

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higher than their confidence in meeting the grades for their CF acceptance. The confidence ratings generated in Task 3 gave students' self-assessment of their ability to gain a place at each of the longlisted universities. The data suggested that, for many of the students, this was the case (see Figure 9.3).

Figure 9.3 Confidence ratings assigned to the CF and CI choice universities.
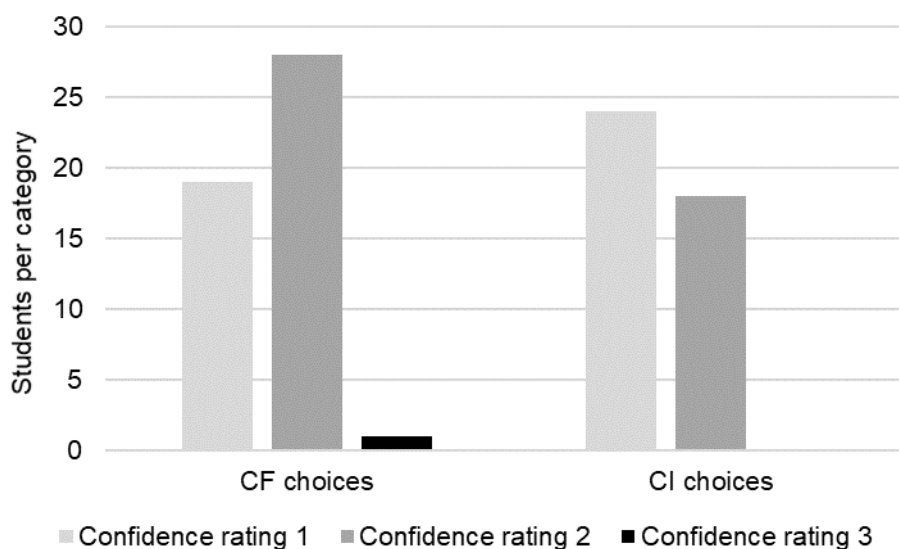
Overall, confidence in both CF and CI universities was high, with all but one given ratings of 1 (I am certain I could get a place at this university) or 2 (I think I could get a place at this university). The only rating of 3 (I am not sure that I could get a place at this university) was made by Alice, who had expressed a desire throughout to challenge herself, but had made a safe insurance choice that she was very confident of achieving.

There were two clear patterns of acceptance behaviour: a) students rated their CF choice as 2 and their CI choice as 1, or b) they were equally confident in both choices. Having equal confidence in meeting the requirements of both universities did not mean that both were asking for similar grades, but simply expressed a participant's belief that *both* sets of entry requirements were well within their grasp.

There was one student who did not follow either of these behaviour patterns. Emma had rated York St John, her CF choice as 1, but had given Cumbria, her CI choice, a rating of 2, suggesting that it was not a safe insurance. The explanation was that Emma, having received only two offers, had no other choices and, although the higher grades needed for Cumbria would have made it a logical CF choice, she had lost interest in this university after discovering that her course was offered at the Carlisle campus. This raised an interesting point in relation to UCAS protocol, which does not require applicants to make two choices. Since Emma had only one offer from

a university she was willing to attend, she could have simply made York St John her CF accept with no insurance, but did not appear to be have considered this.

Most students, however, appeared to have followed conventional advice to pick a CI university that they felt offered a 'safe' insurance choice in terms of entry requirements, but one that they would actually be prepared to attend, even if it had not been in their top five preferences. Samantha and Louisa were typical:

> "All of my offers are for ABB grades apart from Brunel *(her ninth preference)*, and they have only asked me for CCC which makes it an obvious insurance choice as I feel totally confident of getting at least three Cs."
>
> (Samantha, Borough Sixth Form)

> "The first three offers I got were all for three grade A's. So when I got an AAB offer from Exeter *(her sixth preference)* it just made sense to accept it as my insurance…just in case something goes wrong with one of my A levels."
>
> (Louisa, The Croft)

The most extreme example of a safe insurance choice having been low-ranked in terms of preference was Rachel's decision to make Nottingham Trent her CI having rated it as 17th, her least preferred university. This appeared to reflect the advice she had taken at the longlisting stage that she needed to 'find some universities that were not three A grades'. Nottingham Trent, and her CF of Essex (6th preference) were the only universities where she felt certain of obtaining place.

9.4 Links between research strategy and CF and CI choices.

Students who had received at least three offers all described a process in which they had clearly made an active choice of their final two, but their explanations appeared to fall into two categories: a) those who had decided upon their CF and CI in a way that appeared to be consistent with their general approach to finding universities and what they said had been their 'most important influence' in answer to Question 5, and b) those who seemed to have based these final decisions on factors that were not always consistent with their statements about the most important influence.

9.4 (i) Decisions that were consistent with the 'most important influence'.

Students who had stated a most important influence that was micro- or meso-focussed usually made CF and CI choices that were consistent with this. Those who said proximity to home was most important often chose as CF the closest university for which they had an offer: for example, Lucy, had four local offers, and chose Salford, which was the closest, and Daniel and Alexander both chose Manchester Metropolitan,

which was the closest of the three offers each held. A similar consistency was seen amongst those who said friends or family were the most important influence: for example, Jordan had three offers but had followed his friend, Samuel, in choosing Central Lancashire, and Laura chose the two universities recommended by her aunts.

A second group of students who appeared to stay with their most important influencer at this final stage of the process were those who had described the 'feel' of a university or city as having the greatest impact. Adam had been made offers by all five of his UCAS choices, but maintained throughout the interview that the atmosphere at Keele had, at each of his three visits to the campus, created such a positive impression that no other university could compete. His firm belief that the 'feel' of a university was the most important factor was confirmed by his description of making a return visit to the Derby campus before deciding that he could choose it as his CI offer. Jake, who had also emphasised the 'feel' of a place, chose Exeter as his CF and Kent as his CI, and referred to the importance of 'gut feeling' when deciding if a university was the right place to go.

Amongst those apparently macro-focussed students who had said their most important influence was league table position, there were only two who said this was still the most important factor guiding their choice of CF and CI. Alice had chosen the LSE, her highest positioned offer, as her CF, with Goldsmiths, her second highest positioned offer as her CI, and Oliver had done the same in choosing UCL followed by Manchester. For most of the league-table focussed students, it did not seem necessary for their choices to be the highest possible position.

Amongst those who said that course content was their most important influence, there was only one participant who appeared to have stayed with this factor to the end of the decision process. Zoe had always been focused on finding the right course content, supported by what she described as 'industry standard' facilities, and she included Bangor in her UCAS form because it meet these criteria, even though she had not been able to attend the open day. When she did have an opportunity to visit, the university was not what she had expected:

> "Bangor was actually a big shock for me when I saw it *(shaking her head).* But the place is not that important…and it doesn't really matter where it is. I care more about the course and the facilities than the university itself"
> (Zoe, Newtown A Level Centre)

Zoe made Bangor her CI choice, despite having doubts about the place itself.

9.4 (ii) Decisions that were not consistent with the 'most important influence'.

Students who appeared to have departed from their most important influencer at this final stage had often taken a fact-based approach to generating a longlist that

required engagement with the exo- or macro-systems, and had stated that either course content or league table position was their most important influence. These students often seemed to feel that they had carried out sufficient 'cold' research for all five of their UCAS choices to be acceptable as destinations, which meant that the final stage of making CF and CI choices could be modified by an element of emotional, 'hot reasoning'.

Georgina, despite having emphasised the importance of getting into a 'top' university, felt that her emotional response was important when it came to the final choice, and did not choose on the basis of highest league table position:

> "I didn't want to be in a busy part of London…I found that overwhelming *(referring to an open day experience).* At Durham, I can see myself fitting in… it's smallish, and I liked the atmosphere there."
>
> (Georgina, The Croft)

Lauren had been sufficiently focussed on league table position when drawing up her longlist to be able to quote the exact ranking of her preferred universities, and her 1st and 2nd preference universities, Imperial and Surrey, were in 3rd and 4th place nationally for her subject. She had offers from both universities and made Imperial her CF, but declined Surrey after visiting:

> "Surrey invited me to a UCAS day which included an interview, and the tutor asked me where else I had applied. I felt that he was rubbishing the other places and pushing Surrey too much, which put me off."
>
> (Lauren Greenfields A level group)

Lauren chose Leeds, her 7th preference and 14th in the league tables, as her CI acceptance, despite commenting that Surrey offered a year in industry, had good employment prospects and was in a rural area that she liked. Lauren had given a strong impression throughout the interview of being driven by facts and evidence, but this did not persuade her to accept a place that did not 'feel' right.

William, who had said at one point that if he couldn't find exactly the right course content he might not even go to university, had received offers from all five of his UCAS choices and, at this final stage, he spoke of how the facilities and entry requirements compared. However, his CF choice of Sheffield Hallam was influenced by another factor:

> "Family want me to go and say it's my decision, but they all came to open days with me. They all liked Sheffield Hallam by far the best. Talking with students there was important…and they send me just the right amount of emails to keep me up to date."
>
> (William, Newtown A Level Centre)

Whilst William appeared to be very content with his CF choice, he described his CI choice, London South Bank, as a place he 'didn't really like very much', but had chosen

because the grades were right, demonstrating once again that even those with sufficient offers to make a choice may not have been entirely happy with the outcome.

9.5 Summary.

The factual answer to Research Question 5 (What factors determined a student's final choice of Conditional Firm and Conditional Insurance acceptances?) would be that the students chose the universities they liked the best from amongst the offers they had received. For some, this final decision was consistent with their 'most important influence'. This applied particularly to those who were micro- or meso-focussed. Amongst those students who had placed a strong emphasis on hard facts and comparative data, the CF and CI choices did not always seem to be in accord with their 'most important influence'. Such students often recognised, at this final stage, the importance of emotional responses, and the need to choose a place where they felt they would be happy. This meant that some students appeared to have chosen less-preferred universities when a more-preferred offer was available. The answers to Interview Question 4 suggested that at this late stage of the UCAS cycle, students now had sufficent information to compare and refine their knowledge and perception of the universities they had considered. Some acknowledged that whilst they retained a strong preference for a certain university, they had chosen a less-preferred one because it 'made sense' or 'felt right'.

Amongst those who did not have any offers, the findings confirmed an impression that had been evident, with some of the students, from the start of their interview: a sense of disconnection with the UCAS process. Every student still had a chance of getting a place, either because their one outstanding application might generate an offer, or because they would have been eligible for the UCAS clearing process (though none appeared to be aware of that at the time of the fieldwork). However, those with no offers were frequently those who had constraints that suggested they were unlikely to receive an offer of a place that would meet their personal criteria. A focus on hot reasoning, based on emotive information from people who were trusted but not always well-informed, was a feature of such students.

Chapter 10: A conceptual framework for understanding UCAS choice.

Introduction.

Chapters 5 to 9 ended with a summary of the factual answers to each research question provided by analysis of 'whole sample' data that measured each stage of the UCAS process. This chapter draws together the five stages and revisits the findings from the perspective of individual applicants, for whom it is a single, integrated experience.

The chapter returns to the conceptual framework proposed by a synthesis of Bronfenbrenner's Bioecological Model of development and Simon's Behavioural Model of decision making. It considers evidence from the data that relates to each of the key features: ecosystem focus; knowledge structure; simplifying strategies; styles of reasoning. The chapter ends with the proposal that the data appear to support the identification of three distinct decision making styles: satisficing, optimising or pragmatising.

10.1 Revisiting the research questions.

The research questions related to five distinct stages of the UCAS process as a practical means of ensuring that the research tools gathered data that would offer a comprehensive account of UCAS decision making. Presenting the findings according to the stages was a logical step, and factual answers to the research questions in each of the chapter summaries identified key issues in the choice process. However, this presentation style perhaps underplayed the cohesive narrative that was provided by individual students during the interviews. Integrating the factual answers across all five stages begins to restore the sense of coherent narrative.

Which UK universities a student had heard of, was linked to the type of educational environment and the degree to which they understood the hierarchy amongst universities; ***the factors that influenced their knowledge*** were IAG provision, experience of university amongst family and friends, the life-stage at which they first decided on university. ***The sources of information a student had used*** were linked to their knowledge structure as they began the process and the extent to which IAG had steered their behaviour; ***how they valued these sources*** was linked to a preference for either 'hot' reasoning or 'cold' reasoning, and their personal goals. ***How a student generated a longlist*** was influenced by the factor they deemed 'most important' in their search for universities (ranging from proximity to home, to league table position); ***the universities they included*** were a consequence of this 'most

important influence'. **How a student selected a shortlist** depended on their personal goals and the criteria against which they assessed the suitability of a university; **which universities they included** was goal-oriented but influenced by realism. **Factors that determined a student's final choice of CF and CI universities** were dominated by offers they had received, but for many the final decision was influenced by 'hot' reasoning based on emotional response to a university.

Each interview demonstrated the complexity of the UCAS task, and most students described a process that had involved many interactions, often involving a range of other people and sometimes spanning many years. However, there was usually a strong sense that the student was describing a process that they felt had been coherent, logical and rational.

10.2 Characteristics of applicants and environments.

10.2 (i) Consonance between home background and ecosystem focus.

The findings often reflected aspects of existing research, locating the study within the literature. They frequently supported Bronfenbrenner's emphasis on the inequality of home backgrounds and consonance across ecosystems (Bronfenbrenner,1979; 2000). Those receiving independent education described advantaged home backgrounds, continuity of schooling (Singer, 2002) and experience of educational choice (Vowden, 2012). State sector students often described discontinuity, had little experience of educational choice (Exley, 2013) and attended schools and colleges with limited reach into the higher education sector. Those who had 'always known' they would go to university described many activities that offered *prospective* preparation for university and enabled them to produce a strong application (Riddell, 2007; Jones, 2013). Those who decided on university only at college described hasty decisions based on limited information (Beckett, 2002), and were forced to take a *retrospective* approach to the application process (Shuker, 2014) that could result in weak and unsuccessful applications. The findings included many indications that students had focussed on one of the four ecosystems when searching for possible universities, and there appeared to be links between home background and the focus chosen.

Micro-focused students often considered only those universities that had been suggested by a family member or close friend; someone they knew and trusted, regardless of how informed they were. Meso-focused students also made many references to family and friends as initial sources of information about universities, but differed from their micro-focused peers in that they sought confirming information or

advice from other people. Exo-focused students had begun the search by going directly to the university sector for information, often by using UCAS as a route to university websites, but sometimes by googling. Macro-focused students began with sources of information that would allow comparison of universities, predominantly league tables. Ecosystem-focus was not independent of background: micro- and mesosystem-focussed students tended to come from less-advantaged homes; exo- and macrosystem-focussed students usually had familial experience of university.

10.2 (ii) Knowledge structure, ecosystems and simplifying strategies.

Bronfenbrenner and Ceci (1994 p.572) claimed that advantaged families provide their children with 'know-how'. The findings frequently reflected existing research that showed young people from more advantaged families had a greater knowledge of the university sector (Moogan and Baron, 2003), and those from less-advantaged families needed help to understand formal knowledge (Smith, 2011). Simon (1983; 2000) claimed that the ability to make an informed decision would be influenced by the content of the relevant knowledge structure. If faced with many possible options, behaviour would be guided by strategies based on prior knowledge and experience relevant to the task (Simon, 1990). The findings supported this, but furthermore, they suggested that the HE-related knowledge structure a student already had in place when they *first* began looking for possible universities steered them towards a certain ecosystem-focus. A student with very limited knowledge would focus on the microsystem. A macro-focus would require understanding of the ideology of hierarchy amongst universities. This, in turn, had implications for the chosen strategies. The simplifying strategy adopted by a micro-focussed student was frequently to rely on word of mouth, but a macro-focussed student would restrict choice by turning to league tables.

The findings suggested links between existing knowledge structure, the ecosystem on which the student focussed and simplifying strategies they adopted, resulting in a search process that could expand or restrict the options that were considered (see Figure 10.1).

Figure 10.1 Links between knowledge, ecosystems and simplifying strategy.
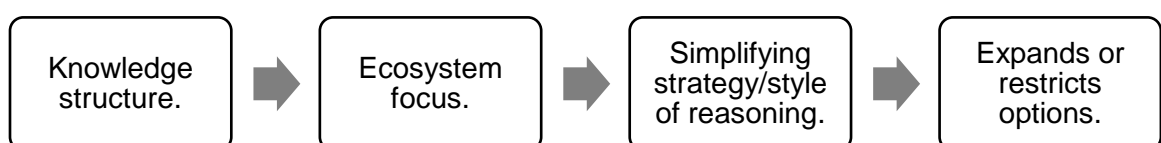
Applying this model to the behaviour that students described, suggested that four distinct patterns could be observed. The ecosystem-focus of the student appeared to be linked to both knowledge structure and choice of simplifying strategy. Matching students to one of the four patterns and comparing this with the outcome of their UCAS application indicated that some behaviour patterns were more likely to result in success than others. The key features and probable outcomes of patterns A, B, C and D are presented in Table 10.1 (*overleaf*).

Table 10.1 Patterns of behaviour and probable outcomes.

Knowledge structure	Ecosystem focus	Strategy/reasoning style	Key features and probable outcomes
Pattern A Limited to what is known by family or close friends, so may be partial, out-of-date, misleading or simply wrong.	**Microsystem:** 'choice' of university takes place within the home environment before any research is done.	Universities only considered if suggested by someone known and trusted. 'Hot' reasoning predominates.	Choices made before any contact with university; fewer than five applications; poor understanding of entry requirements and admissions process; no knowledge of hierarchy. Rejections likely. Worst case scenario: no offers.
Pattern B Based on personal views or experience, but may be accurate and current if guidance staff have been consulted.	**Mesosystem:** universities suggested in one micro-system will be explored in other microsystems before choosing.	Strategy of accepting suggestions, but 'cold' facts from guidance staff may balance 'hot' reasoning from others.	Wider range of universities considered; some discussion before choosing; staff may steer towards realistic options giving better understanding of entry and admissions process. Little understanding of hierarchy.
Pattern C Informed by facts that aid comparison, but marketing 'hype' may conceal some truths and influence choices.	**Exosystem:** engagement with the HE-sector raises awareness of many universities before any choices are made.	Using UCAS or Google for possible options, then direct to universities. Initial 'cold' reasoning tested by visiting.	Large number of universities considered initially, but rapid filtering needed to reduce to longlist. Skill required to apply best filters and make full use of UCAS data. Five realistic choices usually made, leading to offers. Some understanding of hierarchy.
Pattern D Grounded in information that reveals inequalities, and labour market advantages: choosing therefore requires effort.	**Macrosystem:** choices are made within narrow parameters determined by the prevailing ideology of status and reputation.	Start with the league tables (or professional bodies). Reasoning may be over-focused on 'cold' facts.	Relatively few universities considered, dependent on the definition of prestige that is applied. Aiming high may lead to rejections, and use of cold data may select universities that are later rejected for emotionally-based reasons. Clear understanding of hierarchy.

These four patterns of behaviour did not imply that students operated within only one ecosystem throughout the entire process: every student talked with family, every student had some contact with universities. However, students often described close adherence to the strategy chosen to begin the process of finding universities. A student with little knowledge of higher education at the start of the process *could* have changed strategy as they began to find out more, but this did not seem to happen. The most extreme examples of this behaviour were amongst those who applied to just one, two or three universities. All eight of these students had contact with the university sector after applying, but none had considered universities beyond the initial suggestions. Chapter 9 had presented evidence that some students did appear to replace cold facts with emotional reasoning when final decisions were being made, but the universities had still been chosen in line with their 'most important influence', usually league tables or course content.

Identifying individual students who behaved in ways commensurate with these four patterns indicated some cohort effects. Pattern A was associated predominantly with students taking a BTEC course, particularly where the decision to apply to university had only been made once at college. Pattern B was used by BTEC and some A level students, a common factor again being a relatively late decision to enter university (during secondary school or later). Most A level students demonstrated either patterns C or D, and independent school students had always followed pattern D.

10.2 (iii) Person-Process-Context: applicant characteristics and outcomes.

Bronfenbrenner's person-process-context interactions offered a framework for understanding how students with access to the same resources sometimes had very different outcomes. At Greenfields College, Lauren and James provided examples: neither had any family history of higher education, both included RG94-universities in their application, but there the similarity ended.

Lauren's description of how she had found universities was very detailed, but she made no reference to friends or family and, in response to the follow up prompt question, gave this explanation of her situation:

> "There's no one really. I live on my own…that's how I know that budget is very important. I had foster parents till I was sixteen and they are still around but they couldn't advise anything about university, though I did have a social worker who said I should aim for university. I don't really have friends...I don't even do Facebook. My ex-foster parents live in a very rural location so I got used to not having any friends around. And I don't have siblings or anything. There's no one really to influence me apart from teachers…there are only three of us in maths and further maths. And I've been to the student support centre a lot, and used the resources…that's how I was able to go to university open days. I asked
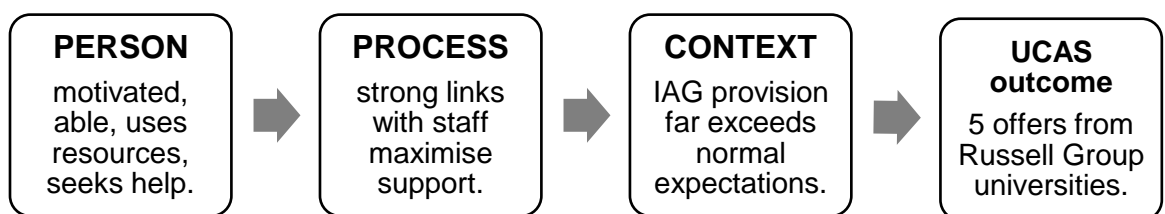
the staff there if I could get any financial help and they paid for my travel expenses."

<div align="right">(Lauren, Greenfields A level group)</div>

Lauren's systematic approach to finding, researching and selecting universities was clearly influenced by academic ability and high achievements at GCSE, but she also appeared to be highly motivated and, perhaps most importantly, she had interacted with college staff in ways that ensured she reaped maximum benefit from the college environment. Using Bronfenbrenner's terminology, her personal attributes had been used to develop strong and effective proximal processes that improved her environment and led to a positive outcome (see Figure 10.2).

Figure 10.2 Lauren: high motivation leading to a positive outcome.

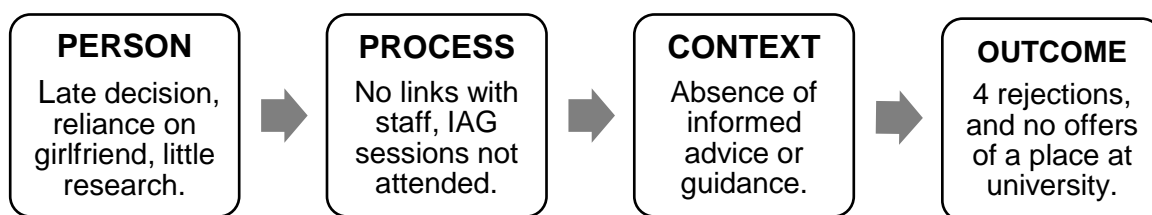| **PERSON**		**PROCESS**		**CONTEXT**		**UCAS outcome**
motivated, able, uses resources, seeks help.	→	strong links with staff maximise support.	→	IAG provision far exceeds normal expectations.	→	5 offers from Russell Group universities.

James was also a Greenfields A level student, so could have accessed any of the IAG resources named by Lauren, but he never made any reference to the staff or the facilities, even after the prompt questions. His description of how he chose his five courses acknowledged a low level of motivation:

"People expect that after A level you go to university and all my friends were doing it…I just trundled along the path. But I didn't really want to do any of my A level subjects for a degree and only had vague ideas. Then my girlfriend said what about social work…and others thought that was a good thing too. That gave me something to focus on and I started looking at universities in a different way. Who does it? What are the grade boundaries? I went to York for a weekend with my girlfriend and liked the city, and it would be convenient to live there. It was coincidence that York seemed to have good standing for social work."

<div align="right">(James, Greenfields A level group)</div>

If James had consulted IAG staff he might have learned that vocational courses require experience and understanding of the profession, which he lacked. The outcome was not positive (see Figure 10.3 *overleaf*).

Figure 10.3 James: low motivation leading to a negative outcome.

PERSON		PROCESS		CONTEXT		OUTCOME
Late decision, reliance on girlfriend, little research.	➡	No links with staff, IAG sessions not attended.	➡	Absence of informed advice or guidance.	➡	4 rejections, and no offers of a place at university.

James could have behaved differently if his personal style had been more motivated, but the outcome could also have been different if decisions were *Context*-driven (compulsory IAG sessions) or *Process*-driven (a social work mentor).

10.3 Types of decision-maker: satisficers, optimisers and pragmatisers?

The findings offered support for Simon's proposal that real life decision makers often satisfice to reach their goals, as some students appeared to have accepted a university that was 'good enough' without looking for alternatives that might have been better. This applied particularly to students who used pattern A or B. Jade and Katie had not looked beyond the two universities where friends had studied, Jack applied to just four universities suggested by staff, Daniel applied to the three universities where he had cousins.

Students using patterns C or D sometimes appeared to be optimising, though the complexity of the UCAS process made this difficult. Jake described using Course Search to list every UK university that offered the LLB professional law course before filtering. William used Course Search key words to find all combinations of product design with sport before selecting the 'best' course content with acceptable entry requirements. Alice and Oliver, who wanted to enter the best possible university, optimised by applying to those they considered the 'top five' and then accepting the highest-ranked university that offered them a place. Many students who said league tables were the most important influence did, however, acknowledge that other factors (often based on hot reasoning and emotional responses) had influenced the choice of CF and CI universities.

Students using patterns C or D who started with unrealistically high aspirations sometimes appeared to be optimising within newly defined parameters. Danielle had compromised her original choices after finding that her preferred universities wanted grades that were too high. Melissa reviewed her options after receiving disappointing AS results. Megan, who would ideally have followed her father and grandfather to

Cambridge, accepted advice from school that she was not qualified for Cambridge or for a science degree. A more accurate description of the decision making style of such students might be *pragmatising*: searching for universities that best meet personal criteria, within the constraints of an uncertain process.

Whilst satisficing appeared to be associated with behaviour patterns A or B, and optimising with patterns C or D, pragmatising offered potential to sit alongside any pattern. Amy, who had used pattern A because her father said she must attend the same university as her sister, was perhaps pragmatising when she said "why look at things I can't have?".

10.3 (i) Compatibility of ecosystem-focus and decision making style.

The apparent links between patterns of behaviour and overall decision making style were further explored by assessing the relative compatibility of each ecosystem-focus with satisficing, optimising or pragmatising (see Table 10.2).

Table 10.2 Relative compatibility of ecosystem focus and decision making styles.

	Satisficing	Optimising	Pragmatising
Microsystem focus	Highly compatible, because a 'good enough' university may be found from just one suggestion from a trusted person.	Low compatibility, because this focus severely limits the number of options considered. However, a restricted goal (e.g. the nearest university, or one 'approved' by parents) could be achievable from a microsystem focus and might demonstrate pragmatising.	
Mesosystem focus	Compatible, if an early suggestion is confirmed by others in the mesosystem as a 'good enough' choice, so ending the search.	Potentially compatible, if goal is restricted and an adviser identifies the universities that could meet goal-based criteria.	Compatible, and useful if mesosystem advice varies, (e.g. tutor says you will not meet the grades for parents' preferred university).
Exosystem or Macrosystem focus	Low compatibility, as both focuses involve comparing different universities to find those that best meet the student's goals.	Compatible if there is a means of identifying all possible options so they can be filtered against goal-based criteria.	Highly compatible particularly if there are competing goals, (e.g. course content versus status, or status versus entry requirements).

The proposal that decision making styles could be identified and classified is a secondary finding that was not directly related to any of the research questions, so interpretation is therefore tentative. Compatible relationships between ecosystem focus and decision making style did lead to successful outcomes, but a more nuanced understanding was required to explain the outcome for every student.

Micro- or mesosystem-focussed students who were satisficing were successful if applying for non-vocational courses with moderate entry requirements, but if they were applying for competitive, vocational courses they were unlikely to receive offers. Exo- or microsystem-focussed students who were optimising by status always received some rejections. However, any ecosystem-focus could potentially be successful if the student was pragmatising. A willingness to modify goals in response to the constraints and limitations of an uncertain process, meant that pragmatisers usually had one or two 'safe' options they would be happy to accept.

10.4 Summary.

This chapter has considered how the characteristics of applicants and environments interact to determine decision making behaviour and UCAS outcomes. The proposal that a synthesis of the models devised by Bronfenbrenner and Simon could offer a framework for describing and explaining the UCAS process appears to be supported. The key features of each model find parallels in the data, and these features link in coherent ways when applied to the behaviour of individual applicants. The framework appears to offer a means of predicting elements of behaviour that might lead to particular outcomes.

Chapter 11: Conclusions, implications, limitations and opportunities.

Introduction.

This final chapter begins by revisiting the purpose of the research, and considers how the primary objective can be answered by a synthesis of the factual and conceptual analysis. The chapter then identifies five main conclusions that offer a contribution to the existing research and literature on progression to university, and discusses the implications of these for policy and practice. The chapter ends by acknowledging the limitations of the study and proposing areas for further research.

11.1 Revisiting the aim of the project.

The primary aim of the study was to discover how young people navigate the decision making process that culminates with their acceptance of a Firm and an Insurance university with UCAS. Analysis and interpretation of the quantitative and qualitative data identified key issues impacting on decision making at each stage of the UCAS process. Discussing the findings within a conceptual framework that placed the applicant at the centre of the process highlighted the high degree of consonance between stages for the individual student. Transitions from longlisting to shortlisting to CF and CI stage were frequently predictable, and determined by events that took place long before the UCAS cycle opened. Answers to the very first interview question could have predicted the behaviour of many of the students: those who had 'always known' they would go to university conducted systematic research to choose their five. Those who decided shortly before the UCAS cycle opened, applied to the most local universities. There was very little evidence of change in approach once the process had begun. The simple answer to the question "How do young people choose their university?" would therefore be that they choose within parameters determined by what they know at the start of the process.

11.2 Study conclusions.

Progression to university can be researched from many perspectives and disciplines; the opening chapters of the thesis draw upon quantitative analysis of large datasets, and inductive approaches derived largely from sociology. This thesis is grounded in psychology, a discipline that is not prevalent in the literature, and therefore had the potential to offer a new approach. There are two ways in which the thesis can lay claim to making a contribution to understanding of UCAS decision making: a) by

creating new research tools to measure the process, and b) by combining theoretical approaches drawn from developmental psychology and cognitive psychology to propose an explanatory framework. Findings that contribute to existing knowledge fall into five main areas.

First, the conventional view of UCAS as a process of generating a longlist, then selecting and discarding universities to form a shortlist, is a simplification. The research questions were shaped by this conventional view of the UCAS process, but the findings showed this assumption was not entirely correct. Some students had omitted the longlisting stage, concluding their 'search' when they had found five possible universities. Some did not even complete the process of shortlisting, applying only to the universities that had been recommended by family or friends. In the most extreme case, this produced an application to just one university. This behaviour was particularly associated with college students and, amongst BTEC students, it was the typical pattern of behaviour, which suggested that this may be relatively common practice. Revisiting the literature did not produce any similar findings, but did suggest an additional gap in knowledge that may be due in part to the way national datasets are analysed. UCAS statistical reports present comparisons of applications, offers and acceptances that compare a wide range of variables, such as age, gender, ethnicity or social background. In order to make legitimate comparisons, the tables typically present data only for those students who made *five* applications. The outcome for those who do not use all five applications is therefore unclear and does not appear to have been the subject of research. The findings of this study suggest that it is worthy of investigation.

Second, the knowledge structure of some students was not sufficient for them to make informed decisions, despite the provision of a national website that offers a comprehensive range of information covering all UK universities, provides information on how to apply, and includes features that allow direct comparison of courses. Some of the state sector students had no knowledge of UCAS until they had to complete their application form, and many students did not have sufficient understanding of the higher education sector to utilise what UCAS had to offer. My personal experience of UCAS working groups is that serious efforts to engage with applicants are made (over 20,000 questionnaire responses in a project group I chaired). However, the findings of this research showed that some students, mostly in the colleges and particularly those taking BTEC, did not understand that comparative research might be necessary. Neither did they have the knowledge or skills to interrogate the UCAS website in a way that could have informed their understanding of what they had chosen and whether it would convey any benefits in the labour market. The findings suggest that the

designers of UCAS information sources for applicants are perhaps over-estimating the capabilities of their intended users.
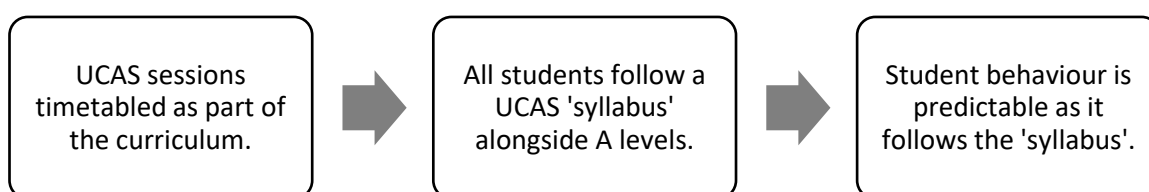
Third, understanding of differences in status and reputation in the university sector was often very poor. A desire to attend a 'good' university was universal, but many students did not understand the hierarchy that operates within the sector. Some appeared to be unaware of league tables and said nothing to dispel the impression that they thought all universities (expect perhaps Oxford and Cambridge) were similar. Others mentioned league tables but only to say they had not used them. Some *claimed* to know about rankings, but had simply accepted a university's (inflated) self-assessment of their own excellence. This has implications for assumptions in the literature that disadvantaged students *avoid* prestigious universities. The college students *did* apply predominantly to post-92 universities, but they explained this behaviour by a desire to stay at home, or to study with friends, or to find universities where their grades and qualifications would meet entry requirements; no student ever said that they were avoiding a university, or a type of university, because it was perceived as 'posh' or 'not for us'. Those college students who were expecting to achieve high A level grades usually *had* included RG94-universities in their application and, if a high achiever was applying for lower-status universities, it was usually because they wanted a practical course not offered by the Russell Group. This would suggest that at least some of the students described as 'missing' by the Sutton Trust (2004) may have had personal goals that were *not* focussed on entry to the highest ranked university their grades merited, and therefore such students may have been 'intentionally absent', rather than 'missing'.

The current findings point to another gap in the literature: the need to understand hierarchy amongst those who would *not* be qualified to enter a prestigious university. Lack of such knowledge affected the students in two ways: a) some 'wasted' applications on places where they would not meet the entry requirements, and b) some had no understanding of the very low status of universities they chose. This does not imply that students choosing low-status universities could, or should, have 'done better'; their choice may have met their goals. It does have long-term implications, however, and there were examples of students who clearly expected a greater return on investment than their degree was ever likely to provide. These concerns applied particularly to the state sector students. Even Oxbridge applicants said they had no advice on choosing their four other universities. At the independent school, every student knew the league table position of all their universities. The findings warn against interpreting the link between independent schools and prestigious universities as an 'easy' progression into top universities, however: seven of the eight students had
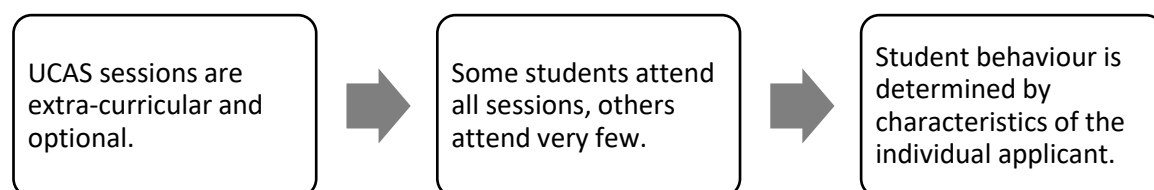
applied for Oxbridge but only one had an offer, despite all seven having predicted results of at least three A grades.

Fourth, the behaviour of students at the independent school was relatively predictable, but in the state sector there was considerable variation within cohorts. Independent school students described a 'curriculum' for UCAS, giving remarkably similar accounts of how they 'worked' on UCAS alongside 'working' for A levels. They set targets, did research, made excel spreadsheets to summarise findings, responded to feedback from staff, and drafted application forms long before the UCAS cycle opened. There were many references to vocationally-relevant experience, which was often accredited (for example, the Engineering Education Scheme). State sector UCAS preparation began after AS examinations, leaving some students unaware of UCAS until shortly before the cycle opened. Staff admitted they were not resourced to meet the needs of every student, and provision beyond the basic 'how to apply' session used an 'opt-in' model. The behaviour of a state sector student was therefore heavily determined by what they had attended (see Figures 11.1 and 11.2).

Figure 11.1 Implications of UCAS as 'curriculum'.

UCAS sessions timetabled as part of the curriculum. → All students follow a UCAS 'syllabus' alongside A levels. → Student behaviour is predictable as it follows the 'syllabus'.

Figure 11.2 Implications of an 'opt-in' model of UCAS.

UCAS sessions are extra-curricular and optional. → Some students attend all sessions, others attend very few. → Student behaviour is determined by characteristics of the individual applicant.

The negative implications of an 'opt-in' model could be seen in those state sector students who opted-out, resulting in poorly informed choices, weak applications, and rejections rather than offers. In the context of the literature, this appears to confirm claims that parents choose independent education in the belief that it is a 'safe choice'. However, the findings challenge claims that such parents do not want their child to experience 'vocational education'. It would be more accurate to say that they *expect* 'vocational education' to be offered, provided it is accredited in accordance with middle-

class expectations. In sharp contrast, the BTEC students sometimes found that their vocational course had not provided sufficient experience to meet the expectations of admissions tutors.

Fifth, the proposal that a conceptual framework based on a synthesis of Bronfenbrenner's and Simon's models would have the potential to aid understanding of UCAS decision making was supported. The terminology of the models consistently applied to aspects of the findings: knowledge structure was measured, ecosystems were described, person-process-context interactions were referenced. The resulting framework illustrated how the environment of home and school could shape behaviour that expanded or restricted the options that were considered and chosen, thereby explaining why independently-educated students dominate prestigious universities. But the framework also had the capacity to explain how some young people from less-advantaged backgrounds *do* enter prestigious universities: person-process-context interactions also influenced behaviour, leading to UCAS outcomes that would not have been predicted by home background or type of education. The suggestion that student decision-makers might be classified as satisficers, optimisers or pragmatisers, was an emergent finding and is therefore offered tentatively, but it has the potential to raise hypotheses for further research that can contribute to current knowledge.

One additional conclusion could be drawn from a secondary finding in the data. The research questions had deliberately focussed on *how* rather than *why* questions, but spontaneous comments that referred to the *reason* for applying to university occurred with such frequency that this became an emergent coding category. Analysis of these comments suggested that many of the students had only vague ideas about the value of a degree to employers. Some were choosing courses that may not have been the most appropriate route to their intended career. This is not a new finding, similar concerns are evident in the literature. However, the fact that almost every student spoke about the perceived purpose of their degree, and that so many of them were poorly informed, is worth noting.

11.3 Implications of the study.

The purpose of the research was to discover how young people choose the five courses for their UCAS form. The conclusions consistently relate to the role of ignorance. Some of the students were not aware of basic facts that could have dramatically changed their application and its outcome. This has implications for everyone involved in the process, from the policy-makers in the macrosystem, to the

exosystem of the university sector, the mesosystem of the schools and colleges and, ultimately, the young people and their families.

There are clear implications for government in relation to the provision of state sector IAG for UCAS applicants. The superior IAG provision at The Croft must be credited with a major impact on progression routes. The middle-class parents described by seven of the eight students appeared to have had very little involvement in the UCAS process. Most parents had not even attended open days. High-quality IAG was part of what they paid for, and they expected the school to steer their daughters towards a prestigious university. The one student who did not have an advantaged background was indistinguishable from her peers. This demonstrates the power of *Context* in driving P-P-C-T outcomes. If IAG can produce knowledgeable students who make well-informed applications in independent schools, it could do the same in any school. Given the history of policy and practice described in the early chapters of the thesis, it seems unlikely that any government would commit the necessary resources to level the playing field for UCAS applicants. However, the findings do suggest some actions that could be implemented without recourse to significant additional resources, though they would require political will.

First, one of the most striking features of the data was the huge disparity in understanding of the hierarchical nature of higher education. Those who *knew* that a group of twenty or so universities convey lifetime benefits for their graduates, applied to this group. They knew because they had been told. Telling everyone could be cost-neutral.

This could have implications for UCAS. Currently, the consistency in the price of most degrees obscures the fact that they do not all offer the same return on investment. UCAS has always maintained that its purpose is to give information, not to offer guidance that might encourage an applicant to choose one university rather than another, but making applicants aware of university groupings, for example, would simply spread an advantage already enjoyed by independent school applicants. This would be resisted by many universities, and again raises the question of whether UCAS is for applicants or institutions. A further issue for UCAS relates to the minority of students who did not apply to five universities. UCAS provide extensive data analysis services and, at a cost, will produce bespoke datasets. Information pertaining to this sub-group of applicants will exist, and should perhaps be the focus of research to identify outcomes.

Second, the university sector could take more responsibility for honesty, particularly in relation to graduate outcomes. The findings revealed a degree of scepticism towards universities that 'tried too hard', but this did not always prevent

students from being misled. University marketing departments are judged by their ability to meet recruitment targets, and winning their sector's highest accolade, a HEIST Gold Award, can be achieved with little consideration of the integrity of materials that are intended to persuade, rather than inform.

Third, there are implications for schools and colleges, though it must be acknowledged that at the time of the fieldwork, all three of the state sector institutions were facing redundancies in IAG teams that were already inadequate to meet the needs of all students. Resource-heavy suggestions would therefore be unhelpful, but there may be opportunities for modification of what is already offered. The only aspect of state sector IAG that appeared to be regarded by the students as compulsory, was the UCAS session that explained how to apply. This was sometimes a one-day course that included time on the UCAS website. Expansion of this to demonstrate how the UCAS site can be used to *compare* courses and outcomes would provide information that independent-sector families already have. Two things appeared to obstruct this: a) state sector staff themselves did not fully recognise the significant differences in outcome, and b) proper recognition of status and outcomes would have questioned the value of university links they had already made.

Fourth, there are implications for the students and their families. State sector students varied widely in the use they made of IAG provision and the amount of time and effort they invested in the task of choosing universities. Those who did very little research did not seem to realise that their choices were very poorly informed, and some did not appear to recognise the importance of the decision they were making. But every state sector cohort had at least one student who had carried out systematic, self-motivated research that was comparable to the behaviour of the independent school students. This demonstrated what was possible.

Finally, it is worth remembering that the students in this project entered university in the year *prior* to the raising of tuition fees to £9000 per annum. Recent graduates are voicing their dissatisfaction with huge and rapidly increasing debts, particularly if they have now discovered their degree is *not* attractive to employers. The schools and colleges that encouraged progression, and the universities that recruited them, may increasingly be seen to have offered a flawed service. At the time of writing, The Guardian is campaigning on behalf of debt-laden students, the recent Labour Party election manifesto pledged to end tuition fees and the National Union of Students is raising awareness. A person-process-context-time analysis of the situation might conclude that the time has arrived when students and parents *could* provide the lever for change.

11.4 Limitations of the study.

Although considerable thought was given to the design of the research, there are limitations inherent in any design. The most significant design-related limitation was the choice of a retrospective study, with data captured towards the end of the UCAS main cycle. It must be acknowledged that students who were describing a process they had completed over a period of at least six months, sometimes much longer, may not have had total recall. This was anticipated by the inclusion of both quantitative and qualitative tasks that measured the same element of behaviour and provided additional opportunities for memories to be triggered, but the possibility that some actions were simply forgotten cannot be ruled out.

It must also be acknowledged that the sampling parameters excluded mature students, those not in education, or those with non-standard qualifications. Generalising the findings to these groups is not possible, but the capacity of the research tools to enable applicants to build a picture of a decision making process that may have spanned several years would suggest the tools are highly suitable for mature, non-standard applicants.

The sample size also ruled out consideration of a range of applicant characteristics, but two of the excluded variables were, however, present in the data: gender and ethnicity. During the data analysis, attention was paid to both factors, and there were no obvious differences that suggested they presented confounding variables.

Unanticipated events can affect any study, and in this case the unavoidable absence of some students reduced the total sample size from 60 to 56. That two of the absent students were in the independent school was unfortunate, though the consistency of behaviour at The Croft was such that it seems likely the results would not have differed greatly if a cohort size of ten had been achieved.

11.5 Further Research.

Several of the implications relate to the need to remove ignorance, or improve decision making. The research tools created for this study have the potential to provide low-resource methods of contributing to this need.

First, an online version of the card-sort tasks and interview questions is feasible, and could enable ongoing, self-assessment of UCAS-related behaviour by students themselves as they work through the process of finding courses and universities. Several of the students in the current project said they had found

participation helpful for this very reason: they had assessed their own behaviour for the first time.

Second, piloting of the online self-assessment tool, using a longitudinal approach, would gather new evidence that recorded the type and amount of research students were conducting. Comparison of this data with final progression outcomes (the university at which a student enrolled and, ultimately, whether they completed the course) *could* create the potential for this to become a diagnostic tool. This claim is based on the current findings that showed students who carried out very little research appeared to have no idea that their behaviour was inadequate, and there did not seem to be any consensus around what *was* adequate. The emergence of a diagnostic tool could enable both students and their advisers (parents or staff) to monitor what was being done and suggest additional actions if the behaviour was below a level associated with successful decision making.

Ideally, a diagnostic tool would provide tutors with an 'early warning' that a student might be heading down a path that would lead to rejections, rather than offers. The proposal that decision-makers could be classified as satisficers, optimisers or pragmatisers, with the latter being perhaps the most successful, is offered tentatively as a secondary finding of the current research. The development of a self-classifying element of the tool could offer insight to students and create a learning opportunity for staff. Pragmatism may be a personality characteristic, but pragmatising could be taught.

Finally, the limitations imposed by the choice of sample for the current project could be overcome in a cost-effective way by including mature, non-standard entrants in the development of an online task. Since this group often have no access to formal IAG, their need for ongoing support and feedback may be even greater than that of the students who took part in this project.

11.6 Reflection.

This thesis has shown that many of the state sector students made decisions that were poorly-informed, and some made UCAS applications that did not generate offers from universities. The students had been educated during the New Labour era, with its focus on widening participation. The students who will apply to university in 2017/18 have received their secondary education since 2010, when the Conservative/Lib Dem Coalition government was elected. Will they be any better informed?

The university sector in 2017 looks very different to that entered by this study's participants in 2011. From a student perspective, the most fundamental difference has probably been the rise in tuition fees to £9250 per year, with repayments linked to the Retail Price Index, which currently means an interest rate of 6.1%. A recent analysis estimated that 77% of students may never fully repay their loans, and found that students from the poorest families will emerge from university with significantly higher debts than those from the richest families (Institute for Fiscal Studies, 2017). An increasing number of graduates chasing a finite number of jobs will leave many in roles that are not the 'managerial and professional' careers they hoped for. The need for high-quality IAG for university applicants has never been greater, but current provision for many students may be even less adequate than in 2011.

The government elected in 2010 not only trebled tuition fees, it also closed down the Connexions Service, and established the National Careers Service (NCS) and the Careers and Enterprise Company instead. The NCS provides information via a website or helpline. There is no face-to-face provision for young people. The Careers and Enterprise Company links schools with employers and providers of careers and enterprise activities. Neither of these services are equipped to provide IAG that could support school and college students to make informed, successful, UCAS applications. A recent House of Commons committee (HOC, 2016a) reported serious concerns about the continuing poor quality of careers advice in schools. The government response (HOC, 2016b, point 1.) referred to planned investment of £90 million over the lifetime of the parliament (i.e. a five-year term commencing in 2015, so c£18 million per annum) for a programme of work to help young people access high quality IAG, in addition to a budget for the NCS in 2016/17 of £77 million. To put these figures into context, when the LEA Careers Services were privatised in 1994/95, the budget for that year was c£100 million (Peck, 2004). It is hard to see how the current expenditure on IAG can be regarded as adequate.

It would seem that current university applicants are more dependent on the expertise within their school and college than ever. In this context, independent, online searching must continue to be a major factor in the decision making process. This year's applicants have access to the new Teaching Excellence Framework (TEF), which assigns Gold, Silver or Bronze awards to institutions on the basis of teaching quality. The TEF will be reviewed by the new Office for Students that will replace HEFCE and OFFA in 2018 (HEFCE, 2017), but it has already caused considerable disquiet in the university sector. Several Russell Group universities achieved only Bronze awards, whilst some FE Colleges achieved Gold. There are some interesting links to the data in this thesis. For example, the university that Jade mistakenly

believed was in the 'top ten' of UK universities may still be in the lower half of the league tables, but it has a TEF Gold Award. Conversely, the university that Alice chose as the highest-ranked university offering her a place, has only a TEF Bronze Award. The TEF, combined with league tables, and the Unistats data, could provide a valuable tool for comparing universities. However, it remains the case that for a student to benefit from this, they would first need to have knowledge that these tools existed, and would also need to understand why comparison is important. In the absence of face-to-face IAG from an impartial adviser with the relevant expertise, it seems likely that many students, in the state sector at least, will continue to make decisions based on 'hot' reasoning rather than 'cold' facts.

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Dear (first name of student)

Thank you for expressing an interest in taking part in my research to investigate how students find out about higher education and decide which courses and universities to put on their UCAS form. I'm writing to you with more details of the project and how I work with student participants.

I am a research student at the Institute of Education, University of London and the work that I am carrying out at (school/college) will form part of my PhD thesis. My work with students is done on a one-to-one basis, in a private room at your school, during a one hour session booked in advance so that it does not conflict with your timetable. The actual interview usually takes about 50-55 minutes.

During the interview, we will talk about how you researched and chose your universities and which factors were important to you in making those decisions. You will also complete some activities that will help to describe the process, for example, sorting sets of cards into categories to show which universities you considered as possible options or which sources of information you used to find possible universities and courses. The activities do not have any 'right or wrong' solutions; they are very much a matter of personal choice and preference.

At the start of the interview I will ask you to sign a consent form, but your participation is entirely voluntary, and you will be free to leave the interview at any stage if you wish.

I would like to emphasise that the information you provide will be handled in a confidential manner. Your record sheet will be identified with a pseudonym chosen at random and this given name is the only one that will ever appear in my thesis or any other published information. The name of your school will also be changed and only brief details will be reported to avoid the school being identified. None of your comments will be shared with staff. My only meetings with staff will concern practical issues of conducting the research and the only information I would ever give to staff would be restricted to generic issues about how students are using the staff, resources and facilities here at the school.

I am delighted that you are interested in the project and look forward to meeting you. With best wishes

Susan McGrath
Research Student
Institute of Education, University of London
20 Bedford Way
London
WC1H 0AL

Student Consent Form

Research Project – finding out about universities and making UCAS decisions.

Please tick

I have read the information letter about the research project ☐

I understand that the information I provide will be treated as confidential ☐

I understand that I may withdraw from the interview at any time ☐

I agree to take part in the research, as described in the information letter ☐

Name   _____

Signed   _____   Date _____

Researcher's
Name   _____   Date _____

APPENDIX 3: The 115 universities as they appeared on the name-cards.

Aberdeen	Glasgow*	Queen's Belfast*
Abertay Dundee	Glasgow Caledonian	Reading**
Aberystwyth	Gloucestershire	Robert Gordon
Anglia Ruskin	Goldsmiths College**	Roehampton
Aston	Greenwich	Royal Holloway**
Bangor	Heriot-Watt	St Andrews**
Bath**	Hertfordshire	Salford
Bath Spa	Huddersfield	Sheffield*
Bedfordshire	Hull	Sheffield Hallam
Birmingham*	Imperial College*	SOAS**
Birmingham City	Keele	Southampton*
Bolton	Kent	Southampton Solent
Bournemouth	Kings College*	Staffordshire
Bradford	Kingston	Stirling
Brighton	Lancaster**	Strathclyde
Bristol*	Leeds*	Sunderland
Brunel	Leeds Metropolitan	Surrey**
Buckinghamshire New	Leicester**	Sussex**
Cambridge*	Lincoln	Swansea
Canterbury Christchurch	Liverpool*	Swansea Metropolitan
Cardiff*	Liverpool Hope	Teesside
Central Lancashire	Liverpool John Moores	Thames Valley
Chester	London Metropolitan	UCL*
Chichester	LSE*	Ulster
City	London South Bank	University for the Creative Arts
Coventry	Loughborough**	University of the Arts
Cumbria	Manchester*	University of Wales, Newport
De Montfort	Manchester Metropolitan	UWIC, Cardiff
Derby	Middlesex	Warwick*
Dundee	Newcastle*	West of England
Durham**	Northampton	West of Scotland
East Anglia**	Northumbria	Westminster
East London	Nottingham*	Winchester
Edge Hill	Nottingham Trent	Wolverhampton
Edinburgh*	Oxford*	Worcester
Edinburgh Napier	Oxford Brookes	York**
Essex**	Plymouth	York St John
Exeter**	Portsmouth	
Glamorgan	Queen Mary**	

*Russell Group member   **1994 Group member

LSE = London School of Economics
SOAS = School of Oriental and African Studies
UCL = University College, London

Task 1

"In this first activity, I would like you to sort a set of cards that have the names of all the main universities, into four categories. Here are the categories (spreading the four cards on the table in front of the students and reading aloud as each one was placed). And here are the name cards" (producing the pack of 115 cards). *And then, in conversational style, "These cards do not include everywhere that you could possibly apply to, because the UCAS list has more than 300 hundred places on it, which would be far too many to sort." (this usually produces a comment expressing surprise, in which case, simply respond that it surprises most people)* "Because this pack only has the main universities in the UK, you might have considered or applied to a small university or a college that you find is not on one of these cards, so I also have these blank cards (placing the blanks and a pen on the table) so that you can simply write new cards if you need them".

"The way you sort the cards is entirely up to you. There are no right or wrong ways to do it, no expectations about what you put into each category, and no time limit. Have you any questions before we start? If there is anything you want to ask or say while you are doing the activity, please do."

When the student indicates they are ready to begin the activity: "While you are doing that I will just be preparing the cards for the next activity" Interviewer then turns slightly away from the student and begins to lay out the tray of cards for Task 2, which removes any sense that the student is being watched or is under pressure to complete their task quickly. When the student appears to have completed the activity: "Are you happy with the way you have sorted that cards? Do you need to use any of the blank cards for places that were not in the pack?

After confirmation that the task is complete: "The cards that you put into these two categories (indicating Cat 3 and Cat 4) will not be needed again, so I will move these out of the way. These cards (indicating Cat 2) will be needed later so I'll put these to one side." The only cards left on the table are therefore the universities applied to and the blanks.

Task 2

"For the second activity I would like to focus on just the universities that you applied to" (picking up those cards and spreading them out in front of the student). "We also need

this tray, (placing it within view and reach of the student) which has cards listing a range of things you might have done when you were finding out about these universities".

"There might be other things you did that are not on the cards, so you may need to use the blank cards to write some extra things". *And then, in conversational style, "For example…someone wrote 'my Uncle' because that was how she found out about one of her universities…and someone else wrote Students' Union because they had looked at its website for one of their universities."*

"Take a look at the tray…and then, for each of your universities, choose any of the cards that describe things you can remember doing. Choose as many or as few as you like. The idea is just to try and build up a picture of what you did. If you have any comments or questions, please ask at any time."

When the student begins the activity, the interviewer again turns slightly away and begins reviewing the notes made on the record sheet, to remove any sense of being watched or hurried.

When the student appears to have completed the activity: "Are you happy with the cards you have chosen? Do you need to use any of the blank cards for things that were not in the pack?" Once the student has confirmed the activity is complete, the interviewer produces envelopes for each of the universities and explains that each pile of selected cards will be placed in an envelope marked with the name of the appropriate university to ensure there is no confusion about the student's choices. *Students may seek to assist with this task, in which case hand them the envelopes for the two piles that are furthest from the interviewer.*

Task 3

"For this activity, we need to bring back the cards for the universities you considered but did not apply to" (picking up those cards *and* the ones already on the table, and making them into a single pile, discreetly mixing them so that they are no longer separated into 'applied' and 'considered' universities). "This time, I would like you to think about these universities in terms of how much you liked each one, and which ones you might have chosen if you *could* have gone to *any* of them." *And then, in conversational style: "For example, if things like…the grades they wanted…or the content of the course…or how far away it was…were simply not an issue".*

The pack of cards is then handed to the students with the comment, "The idea is to try and lay out the cards in a way that would show which was your most preferred university through to your least preferred university."

As before, when the student begins the activity, the interviewer again turns slightly away and begins reviewing the notes made on the record sheet, to remove any sense of being watched or hurried.

When the student appears to have completed the activity, "Are you happy with the order now? Let me note these down on the record sheet." The interviewer then picks up the cards one at a time, starting with 'most preferred' and seeks verbal confirmation of the order as she writes it down to ensure accuracy.

Those cards are then placed back on the table with the comment. "We will need these just once more".

Task 4

"This is the final activity, and we will go back to the universities that you considered and applied to". The interviewer then picks up the cards from the table, discreetly mixing them so they are no longer in preference order, and hands them to the student. "We also need four category cards for this final activity, and this time they relate to how confident you would feel about getting a place at each of the universities you considered." The four category cards are then spread on the table and read aloud as each one is placed.

"Take a look at the categories, and then decide which one best describes how you feel about each of these universities."

As before, when the student begins the activity, the interviewer again turns slightly away and begins reviewing the notes made on the record sheet, to remove any sense of being watched or hurried.

When the student appears to have completed the activity, "Are you happy with how you have placed the cards? Let me note these down on the record sheet." The interviewer then picks up the cards one category at a time, and seeks verbal confirmation of the order as she writes it down, (e.g. "So these two universities are category 1") to ensure accuracy.

APPENDIX 5: The source of information or communication cards.

I know someone who has studied at this university.

One of the staff at school suggested this university.

One of my parents suggested this university.

One of my friends suggested this university.

I have looked at a prospectus for this university.

I have checked this university in printed league tables.

I have looked at a course leaflet for this university.

I have had a postcard, leaflet or similar mail from this university.

I have been to an Open Day at this university.

I have talked with staff who teach on the course I like at this university.

I have met someone from this university at a HE Fair.

Someone from this university has visited my school.

I have made a telephone call to this university.

I have had a telephone call from this university.

I have looked at the website of this university.

I have looked at this university on UCAS Course Search.

I have checked this university in on-line league tables.

I have had an email from this university.

I have sent an email to this university.

I have joined a Facebook group for this university.

I am following this university on Twitter.

I have seen something about this university on YouTube.

I have accessed an applicant portal for this university.

Statements initially piloted to indicate a range of degrees of confidence were:

1. I am very confident that I could get a place at this university.
2. I am quite confident that I could get a place at this university.
3. I am not confident that I could get a place at this university.
4. I am confident that I could not get a place at this university.

Feedback from pilot students suggested that, a) overuse of the word confident made it more difficult to distinguish between categories and, b) that words like 'sure' or 'think' would sound more authentic.

Working with the students, the following categories were agreed to offer wording that was easier to relate to and seemed to offer 'equal appearing intervals':

1. I am certain that I could get a place at this university.
2. I think that I could get a place at this university.
3. I am not sure that I could get a place at this university.
4. I do not think that I could get a place at this university.

Task instructions (Appendix 4) are not repeated here. The six questions (and four sub-questions) intended to generate answers to the research questions are shown in bold.

Hello, do come in. I'm Susan and you must be (name of student) *Offer handshake.* Would you like to sit here? *(gesturing).* I'll close the door so that we won't be disturbed by anyone passing by. Have you come straight from a class? We should be finished by *(state scheduled end time).* What is on your timetable after that? What other subjects are you doing?

Thank you very much for offering to take part in my study. Before we start, I just want to check that you had my letter telling you about the project, I have a copy here if you would like to refresh your memory *(place on table, pause).* So you know that before we begin the interview I need to ask if you are happy to sign the consent form? Here it is for you to read *(wait until it has been read).* If you are happy with those points, perhaps you could tick them and sign the form, then I will sign it too.

You know that the interview is going to include some activities, and we are going to start with one of those, but first I just want to say that the whole session will be quite informal. We can stop and chat at any point if there is something you want to ask or say, and there will be time at the end of the interview for you to ask me questions if you have any. Is that OK?

<div align="center">Task 1</div>

Now I'd like to ask**, can you remember when it was that you first thought you might, or would, go to university? (Q1)** What can you tell me about that? *(Use non-verbal and non-vocal signs of interest to show continued engagement with the interviewee whilst noting down salient points).* Thank you (name). *(Use records to give verbal resume of comments noted down)* That's very helpful. I'd like to move on now to the second of the activities.

<div align="center">Task 2</div>

Thank you. You've already told me about the time when you first thought you might go to university, now I'd like to ask you about the time **when you began to look for possible universities, how did you start and what did you do? (Q2a).** *(Non-verbal, non-vocal signs whilst noting comments…verbal resume given at appropriate*

intervals…repeat with each sub-question.) **Did any of the staff here at school have a role in finding universities or applying? (Q2b) Did your parents have any role in this?(Q2c) Did anyone else in the family have any role in this? (Q2d) Did friends have any role?(Q2e).** *Modify the form of these questions if necessary to maintain the conversational flow of the interview, e.g. You mentioned earlier that your parents came with you to some open days, did they have any other role?*

Thank you (name). That's all very useful. I'd like to move to the third activity now.

Task 3

From my notes, I can see that you have talked about lots of issues in considering universities and you've shown me your preference between these universities *(gesturing to the considered and applied cards still on the table)* but you could only apply to five of them, so **can you talk me through the reasons for choosing some of these universities and discarding others? (Q3)** *(non-verbal, non-vocal signs, comments noted).*

Thank you (name). I'd like to move on to the final activity now.

Task 4

You've given me a lot of information about how you decided between the universities *(verbal resume)*, now **can you talk me through the current situation with your application. Are you in a position yet to make decisions about your Firm and Insurance choices? (Q5)** *(non-verbal, non-vocal signs, comments noted – verbal resume).* This has been so helpful. Reviewing everything that you've said, **If you had to pick just one thing that was the most important influence on how you chose your universities, what would it be? (Q5)**

We've come to the end of my questions now, but **I'd like to ask if there is anything more you would like to tell me…are there any questions I should have asked you but didn't? Q6**

I'd like to thank you again, (name), for being so generous with your time and information to help with my research. As you know, the information you have given me will contribute to my PhD thesis. Is there anything more you would like to ask me about my research or the ways it might be used?

Interview element	Approx timing
Welcome and introduction (including signing of consent form).	5 min
Card-sort Task 1 (universities applied to, considered or recognised).	8-10 min
Question 1 (age at which university first thought about).	3-5 min
Card-sort Task 2 (sources of information used for UCAS choice universities).	3-6 min
Question 2 (how did you find universities?).	10-12 min
Card-sort Task 3 (preference amongst longlisted universities).	2-4 min
Question 3 (reasons for choosing or discarding).	3-6 min
Card-sort Task 4 (confidence in obtaining a place at longlisted universities).	2-4 min
Question 4 (choice of CF and CI universities).	3-5 min
Question 5 (most important influence?).	1-2 min
Question 6 (any other comments).	2-3 min
Debrief and thank you.	2-3 min

S. Hello, do come in. I'm Susan and you must be Ryan (*handshake). Would you like to sit here? (gesturing).* I'll close the door so that we won't be disturbed by anyone passing by. Have you come straight from a class?

R. No I've just been in the library this morning doing some work.

S. Well, thank you very much for offering to take part in my study We should be finished by 12.15. What's on your timetable after that?

R. I'll go straight to lunch, but I've got English all afternoon.

S. What other subjects are you taking?

R. I'm doing Film Studies A level as well, and a BTEC unit in Games Development….and I've already got AS Computing. I did that last year.

S. We'll make a start then, but first I just want to check that you had my letter telling you about the project, I have a copy here if you would like to refresh your memory *(placed letter on table)*

R. Yeah, I got that from Mrs J.

S. So you know that before we begin the interview I need to ask if you are happy to sign the consent form? Here it is for you to read *(waited until Ryan finished reading).* If you are happy with those points, perhaps you could tick them and sign the form, then I will sign it too.

R. Yeah, that's all fine.

S. You know that the interview is going to include some activities, and we are going to start with one of those, but first I just want to say that the whole session will be quite informal. We can stop and chat at any point if there is something you want to ask or say, and there will be time at the end of the interview for you to ask me questions if you have any. Is that OK?

R. Yeah, sure.

S. In this first activity, I'd like you to sort a set of cards that have the names of all the main universities, into four categories. Here are the categories…I applied to this university…I considered this university but didn't apply there…I've heard of this university but didn't consider it…I've never heard of this university before.
R. OK

S. And here are the university name cards *(producing the pack of 115 cards).*

R. All those are universities?

S. Yes. They don't include everywhere that you could possibly apply to, because the UCAS list has more than 300 hundred places where you can do a degree, which would be far too many to sort.

R. I had no idea there would be so many (looking slightly worried).

S. Don't worry, just about everybody says that. Because this pack only has the main universities in the UK, you might have considered or applied to a small university or a college that you find is not on one of these cards, so I also have these blank cards *(placing the blanks and a pen on the table)* so that you can simply write new cards if you need them.

R. I had no idea there would be so many. I won't know some of these.

S. That's not a problem because you have a category for ones you've never heard of *(pointing to the 'I have not heard of this university before' card)*. The way you sort the cards is entirely up to you. There are no right or wrong ways to do it, no expectations about what you put into each category, and no time limit. Have you any questions before we start?

R. No, it all seems fine now you've said I don't have to know them all.

S. If there is anything you want to ask or say while you are doing the activity, please do. While you are doing that I'll just be preparing the cards for the next activity.

Ryan completes Task 1

S.: Are you happy with the way you've sorted the cards?

R. Yes, it was much easier and quicker than I'd expected.

S. Do you need to use any of the blank cards for places that were not in the pack?

R. No, all mine were there.

S. Fine. Now, the cards that you put into these two categories *(pointing to piles 3 and 4)* won't be needed again, so I'll move them out of the way. These cards *(pointing to the category 2 cards)* will be needed later so I'll put these to one side.

S. Now I'd like to ask**, can you remember when it was that you first thought you might, or would, go to university? What can you tell me about that? (Q1)**

R. Well both my parents went and they had a great time so they've told me from an early age really…that I'd go.

S. (*Nods, records, waits*)

R. I knew all through school that I wanted to go to university, but deciding about multi-media was only since I came to college.

S. (*Reading from record sheet) S*o, your parents going to university meant you were aware from an early age that you would go, but it was here at college you decided on multi-media?

R. Yeah, I'm doing computing, English and film studies with a BTEC games development module…and I like coding and I like media so it seems a good choice.

S. OK, thanks for that. I'd like to move on now to the second of the activities.

Ryan completes Task 2

S. If you've finished, I've got some envelopes we can put these into so they don't get mixed up *(S puts three piles of cards into envelopes. R does two piles.)*

S. Thank you. You've already told me about the time when you first thought you might go to university, Now I'd like to ask you about the time **when you began to look for possible universities, how did you start and what did you do? (Q2a)**

R. The first thing was the HE Fair at GMEX. I got loads of prospectuses there for places that said they did multimedia, and then I went to a couple of open days. But then I went on UCAS Course Search because I realised only a limited number actually did multimedia computing. The universities sometimes give the impression they do things but then the prospectus shows they don't…or it sounds OK till you get to look at what's really in the course…or till you see what they've got in the department.

S. (*Verbal resume, Ryan confirmed notes accurate)* **Did any of the staff here at college have a role in finding universities or applying?**

R. Yeah, my teacher said not to apply to Aston as I don't have the grades they look for but I applied anyway.

S. **Did your tutor have any role in this?**

R. Most definitely…checking my options and choices, helping with my Personal Statement…spelling and things.

S. **What about the Careers staff?**

R. Do we have any? Who are they?

S. Mrs J…or Miss A…

R. Oh, the ones who do the UCAS assemblies. Yeah I went to some of those I think, one on funding.

S. **You mentioned your parents always wanted you to go, did they have any other role?**

R. They say it's my decision. They'll support me and pay my fees but it's up to me what I do. My Dad did say not to go to Nottingham…too much nightlife. It's where he met my Mum though! My Mum's a primary school teacher and she thought I'd be good at that.

S **Did anyone else in the family have any role in this?**

R. No, none at all.

S. **Did friends have any role?**

R. No, not really. Well, except I was interested in Nottingham because of my girlfriend.

S. Thanks, Ryan. We'll move on to the next activity now.

Ryan begins Task 3…

R. Can I just check, this is about how much I liked them, yeah?

S. Yes. It's to see what your order of preference would have been if you didn't have to take account of things like the grades they wanted or what was in the course.

R. *(After moving some of the cards several times)* To be honest, I can't really do this. I can say which order I'd put these in *(separating out the cards for universities he applied to)* but these others, I didn't really look enough to compare them. Mostly because they didn't really have the course I was looking for.

S. That's fine Ryan, no problem. We can just leave it there. Let me recap on the things I wrote down about how you found universities *(verbal resume confirmed by Ryan).*

S. You've told me that some of these universities *(gesturing to the longlisted still cards on the table)* didn't have the right course, **can you talk me through any other reasons for choosing some of these universities and discarding others? (Q3)**

R, Well, some of the places didn't seem to have anything impressive in terms of facilities. At Manchester Met they just showed us rooms of computers, but when I went to Staffordshire they had quite a few platforms for multimedia work *(listed some examples)* and Aston as well showed us more than just computers. And at Leeds Met

they have a really good games company you can get involved in. The other thing is if I could get a gap year and work in it. Not going round the world…I mean an actual job, So you'd have extra money and that.

S. Thanks, Ryan. Let's recap on the things you just told me before we move to the last activity *(verbal resume, interrupted by Ryan).*

R. Oh no, not a gap year. I didn't mean a gap year. I meant *(paused)* a sandwich year. Staffordshire and Manchester Met have sandwich courses.

S. Fine, I'll change that.

<div align="center">Ryan completes Task 4</div>

S. You've given me a lot of information about how you decided between the universities. C**an you talk me through the current situation with your application. Are you in a position yet to make decisions about your Firm and Insurance choices? (Q4)**

R. Well I got rejected at Aston, like my teacher said I would, so that's not an option. I've got offers from the other four, and I'm thinking Staffordshire might be my first choice and then Leeds Met second. Leeds doesn't have a sandwich year but both of those have grades that I think I can get and good facilities. Manchester Met has slightly lower grades but they only showed us rooms of computers at the open day. Nottingham Trent want a bit higher grades…and my Dad did say not to go there.

S. *(Verbal resume confirmed by Ryan)* Ryan, this has been so helpful. Reviewing everything that you've said, **If you had to pick just one thing that was the most important influence on how you chose your universities, what would it be? (Q5)**

R. It would be the facilities for multimedia.

S. We've come to the end of my questions now, but **I'd like to ask if there is anything more you would like to tell me…are there any questions I should have asked you but didn't? Q6**

R. Well just that I've enjoyed doing it really. I hadn't really thought it all through like this before.

S. I'd like to thank you again for being so generous with your time and information, Ryan. As you know, the notes I've made will contribute to my PhD thesis. Is there anything more you would like to ask me about my research or the ways it might be used?

R. No, I don't think so. Good Luck with writing it all up.

"Even at GCSE, [1a]*engineering was what I wanted* to do. At school my [2c]*physics* teacher mentioned [5b]*Imperial* as the type of university I should be [6a]*aiming for*, and [3a]*teachers here have given me lots of advice* and encouragement [6a]*not to look down on myself.* The [3c]*Oxbridge Tutor helped* with my personal statement and my [3a]*maths teacher* also looked at it – there are only three of us in the Maths and Further Maths groups. I didn't use the Student Support Centre for finding universities, but they [3c]*paid for my Open Days*. At the end of last year, I decided it would be [1c]*Aeronautical Engineering*, so I used [2a]*UCAS Course Search* to find all the places that offered that, then went straight to the [5a]*league tables* to filter them. I already knew that Imperial was in the top three and that Surrey had the [1b]*best employment rate*, but I checked the rest and just discarded any that were not good in the league tables. Then I went to the [2b]*university websites and departmental sites* to look at the [4a]*entry requirements,* the [4d]*modules, flexibility, year in industry.* Bath and Bristol turned out to be [4d]*very mechanical*. Southampton wanted [4a]*three A's*. It's all about tactics, it was about [6c]*balancing grades and reputation*. There's no point just applying to ones you might not get the grades for. [4f]*Budget* will be very important for me as I have [4f]*no financial support* apart from what I can get from the Student Loans Company, so I've also researched the [4f]*costs of accommodation and other expenses and any bursaries* available at the universities." (Lauren, Greenfields A level group)	[1a] study the subject [2c] school information [5b] word of mouth [6a] aspiration [3a] teachers [6a] aspiration [3c] guidance staff [3a] teachers [3c] guidance staff [1c] a career plan [2a] UCAS [5a] league tables [1b] a 'good' job [2b] universities [4c] entry requirements [4d] course or facilities [4c] entry requirements [6c] realism [4f] finance [4f] finance [4f] finance

APPENDIX 11: Stage 2 analysis: Full list of codes and sub-codes with emergent categories.

CODES	CATEGORY
[1a] To study the subject	
[1b] To get a 'good' job	Purpose of university
[1c] To follow a career plan	
[2a] UCAS: any source, including Course Search	
[2b] Universities: websites, prospectuses, staff	
[2c] School or college: staff, and issues of policy, practice or resources	Sources of information or communication
[2d] Family or friends	
[2e] *Work or work experience**	
[3a] Teachers: subject, not guidance specialists	
[3b] Tutors: personal, not guidance specialists	Sources of help and advice
[3c] Guidance staff: members of the IAG team	
[3d] Friends or family members	
[4a] Living at home	
[4b] Living close to home	
[4c] Entry requirements	
[4d] Course or facilities	Constraints
[4e] Location	
[4f] *Finance**	
[5a] league table position, i.e. confirmed status	Status and reputation
[5b] word of mouth, i.e. unconfirmed status	
[6a] Aspiration or motivation	
[6b] The 'feel' of a place	Attitude and emotion
[6c] Realism: matching preferences to possibilities	

Subsidiary codes: used by a small minority of students, but retained because they generated some useful explanatory quotes

APPENDIX 12 Stage 3 analysis: merging data to look for possible themes.

Factor	Name	Cohort	All universities longlisted	Russell/1994 longlisted	Sample comments coded as 5a: league table position	Q1 First decided on university
League tables	Lauren	Green A level	15	12	I discarded anywhere not high in the league tables	At school, before GCSEs
League tables	Natasha	New A level	18	12	League tables were essential	I always presumed I'd be going
League tables	Andrew	New A level	14	13	I started with The Times	I was always told I would go
League tables	Alice	Borough 6th	18	18	I started with the league tables	Don't think I've ever *not* wanted to go
League tables	Danielle	Borough 6th	12	12	I looked at the subject league tables first	Definitely by Year 7
League tables	Oliver	Borough 6th	12	11	The main thing I looked at was the league tables	I always wanted to go
League tables	Holly	Borough 6th	13	6	Some were low in the league tables so I dropped them	I knew from a very young age
League tables	Georgina	The Croft	15	14	I looked mainly at the course tables not the university	My whole education was geared toward
League tables	Eleanor	The Croft	20	20	The big thing was probably the league tables	From Year 7 at least
League tables	Louisa	The Croft	17	17	Reputation was the main thing, the league tables	I've always wanted to go
League tables	Alexandra	The Croft	11	11	Oxford, Bristol, Edinburgh are high in the tables	Since I was a titch
League tables	Gemma	The Croft	12	11	I checked all 22 courses in the league tables	As long as I can remember
League tables	Kirsty	The Croft	15	15	League tables were the most important thing	Forever
		TOTAL	192	172		
		MEDIAN	**15**	**12**		
Living at home	Jade	New BTEC	6	2	The universities told me things about their position	Last year -it's why I came to college
Living at home	Katie	New BTEC	2	0	The ratings are on the university website	Since the start of college
Living at home	Alexander	New BTEC	4	0		When the UCAS started
Living at home	Bethany	New BTEC	11	3		About 6 months before I came to college
Living at home	Samuel	New BTEC	12	2	League tables *could* be important but I didn't look at any	Just when we got told about UCAS reall
Living at home	Sophie	Green BTEC	11	1		At school, my brothers were already the
Living at home	Amy	Green BTEC	6	1		Decided when I got to college
Living at home	Rebecca	Green A level	6	1		It was only this year that I definitely deci
Living at home	Jack	Green A level	8	2		Since I came to college
Living at home	Elizabeth	New A level	6	2		From going to secondary school I think
		TOTAL	72	12		
		MEDIAN	**6**	**1.5**		

Dear (name of staff contact)

I am writing to you about a research project that will investigate how final year school and college students choose the courses and universities for their UCAS form. This project will form part of my PhD research at the Institute of Education, but it draws on my background as a practitioner and manager in further and higher education. I have worked in senior recruitment and admissions roles in three universities and, in the past year, have chaired the Project Advisory Group for a UCAS/HEFCE study on the feasibility of a national e-prospectus service and been a member of the Steering Group for a UCAS/BIS study investigating the potential of a single portal for all on-line IAG for university applicants.

My project uses card-sorting activities within an interview format to enable students to describe how they began looking for possible universities and courses, narrowed this down to a longlist and then shortlisted just five of their options for the UCAS form. The possible role of staff, family and friends is explored along with consideration of the range of sources of information, advice and guidance on which their decisions may have been based.

Although I am not able to offer any incentives to institutions or participants, the pilot work generated positive feedback from students, who felt the experience of taking part was beneficial.

The student participants need to have applied through UCAS for a place at any UK university, and their choice of subject or institution does not matter. Student interviews will be held from mid-March to late April, just ahead of the decision deadline for UCAS applicants. The attached document provides an outline of the project and explains what would be expected from both staff and students if (name of school or college) became a fieldwork centre.

I do hope that you, and your students, may be interested in my research, and hope that you will not mind me telephoning the school next week simply to ask whether you would like to receive further information.

Best wishes

Susan McGrath
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Encs

1. The context

There is a considerable body of research that has explored general aspects of progression to higher education, including such variables as social class, gender and ethnicity. Amongst this research there is one topic that has received surprisingly little attention: how do young people actually choose the five courses they are allowed to include in their UCAS application form?

This project will focus explicitly on the ways in which final year school and college students select their five options from a pool of thousands of courses offered at more than 300 centres of higher education registered with UCAS. The research will explore how young people find out about universities, what factors influence where they choose to go and what they plan to study, and what use they make of the whole range of sources of information, advice and guidance available to them both at school or college and beyond.

In contrast to the more usual questionnaires, focus groups and statistical data analysis that underpins much of the current research on progress to higher education, this project will work with individual students using a range of card-sorting activities designed specifically for the project in order to help them unpick the personal decision making process that led to their UCAS choice universities and courses.

2. The fieldwork

It is intended that four to six cohorts of students will take part in the research, representing different types of 16-19 educational provision. The student volunteers will be final year school or college students who have applied through UCAS during the current cycle. The fieldwork will take place from mid-March until the end of April. The number of volunteers in each centre will ideally be ten.

Each student volunteer will have a one-to-one interview with me, scheduled for one hour (the interviews usually take 50-55 minutes). The session will be structured by four card-sort activities designed to encourage reflection on a process that may have taken place over several years, interspersed with open questions such as "When you began to look for possible universities, how did you start and what did you do?" or "Did any of the staff here at school have a role in finding universities or applying?"

To ensure that participating in the study is a positive experience for each student and does not cause anxiety about actions or decisions that have already been made, care has been taken in creating the activities to avoid any suggestion that there are 'correct' search strategies or 'good' ways to make UCAS decisions. Verbal instructions will state clearly that there are no right or wrong answers and that every student approaches the task of applying to university in their own way.

The research project has ethical approval from the Institute of Education (and is in accordance with the British Psychological Society guidelines). Students who express an interest in the project will be given an information letter that explains what is involved, emphasises the confidential nature of any information they give, and states that if they become a volunteer participant, they will be asked to sign a consent form at the start of their interview. The form will clearly state that any participant is free to withdraw from any of the activities at any stage, and this will be reinforced verbally. All due precautions will be taken to ensure that the school and the students cannot be identified in the thesis or any other publications.

3. Contextual information about the school or college

It is intended to hold brief interviews (either face-to-face or by telephone) with a small number of key staff in each school or college (preferably one practitioner and one manager) to establish relevant contextual information. The staff interviews will not form any part of my thesis or other published work. The purpose is solely to ensure that references made by students are correctly understood (as an example, in the pilot some students spoke about a 'yellow form' as though this was part of the UCAS process; prior knowledge that the 'yellow form' was an internal document used by the Head of Sixth Form was essential to a proper understanding of what was being described by the students).

4. Resource implications

The only physical resource needed is access to a room where the one-to-one interviews with student participants may be conducted, in order to ensure privacy and confidentiality. There are two elements to the time resource needed for participation in the project. Firstly, the allocation of two, 30 minute sessions at the start of the fieldwork for the contextual interviews with staff. Secondly, the identification of a key contact within the school or college who can help promote the project to students, gather information about possible volunteers, and liaise with me in order to put together a schedule of student interviews on days when fieldwork will take place.

5. Next steps

As indicated in my letter, I will telephone you next week to ask if the school might be interested in taking part, and can then provide any further information you would require. An expression of interest at this stage would be simply that, and would not commit you in any way to taking part.

APPENDIX 14: Profiles of the fieldwork centres.

Newtown College

A large college of further education in an urban area in the north of England, where
many local schools were 11-16, so that moving to either Newtown A Level Centre or
Newtown Vocational Centre for 16-19 study was a natural progression route. It was
College policy to encourage both A level and BTEC students to consider university.
Achievement at the college was good: around three quarters of students left with three
or more A levels or equivalent, and the average grade was a Merit at BTEC or a high
Grade C at A level, placing the college slightly above the national average. The Head
of Guidance had a small team of careers specialist staff and any applicant could self-
refer for a guidance meeting but, with such a high number of applicants, the personal
tutor was the key point of contact for most students. Although the Head of Guidance
had cross-college responsibilities, there did not appear to be any movement between
campuses for other members of staff. Each of the specialist staff supported and
monitored a group of personal tutors, who were also provided with regular information
packs and had the opportunity to attend annual staff development sessions. Tutors
based at the A Level Centre often had long experience of the UCAS process, whilst
those at the Vocational Centre often had business or commercial expertise and links
relative to their subject areas, which were used to arrange career-related speakers and
visits. At the time of the fieldwork, a small number of Connexions Advisers and
Aimhigher staff had desk space at the vocational centre, but worked predominantly with
students on Level 1 and 2 courses. Generic services for students included talks on
UCAS and student finance, access to a resource centre (one at each campus, with
resources tailored to the type of courses offered), tutorial sessions on the personal
statement, a college visit to the annual higher education fair, a higher education
evening for parents and visits from local universities. Provision at the A Level Centre
was supplemented by additional sessions for students identified as 'high flyers',
commonly referred to as the 'Oxbridge Group'.

The BTEC students at the Newtown Vocational Centre were part of a peer
group in which vocational qualifications were the norm, and history of progression to
university was short. For many students, the question of university only arose when
staff raised the possibility at the end of Year 1 of the course. Some therefore made
very late applications to university.

The students at Newtown A Level Centre were part of a peer group who were
all taking three A levels, and most had entered college with the intention of applying to

university. The A Level Centre had a very wide range of subjects, including both 'academic' and 'soft' subjects.

Greenfields College

A sixth form college in a semi-rural area in the north of England, that had a' mixed-economy' delivering both A levels and BTEC. The catchment area had both 11-16 and 11-18 schools, which meant that students seeking a BTEC course would usually progress to the college, but those who wanted A levels often stayed at their current school or entered a sixth form directly. This had the effect of reducing the number of academic high achievers at the college, but results overall were good, with around three quarters of students leaving with three or more A levels or equivalent and an average score equal to a C grade at A level or just below a merit at BTEC, which is in line with the national average. The Head of Guidance had a small team of specialist and administrative staff who were based in the careers resource centre, and had oversight of all personal tutors, which included some senior tutors who supported those with less experience. Generic services offered to all students included talks on UCAS and student finance, information about the local higher education fair, access to the student resource centre and a higher education evening for parents. Advice on the UCAS form and personal statement was the responsibility of personal tutors, but the guidance team checked the forms and references before submission, and offered face-to-face advice for any student who self-referred. Additional support was provided for an 'Oxbridge Group', selected for their high GCSE results. The guidance team also had oversight of all activities and visits relative to progression, including non-university options. The Connexions service had a small office at the campus that was used on a part-time basis for work with Level 2 students, though some BTEC students who had progressed to Level 3 continued to make use of Connexions staff. Provision for 'high-flyers' included Oxbridge Group sessions, which were held at a small, satellite campus a bus ride away from the main site.

The BTEC students at Greenfields had the opportunity to take an AS subject in addition to their Diploma. The possibility of university was therefore raised as soon as they entered the college, because they had peers who were taking A levels and had already decided they would apply to university.

Conversely, the A level students could take a BTEC unit, which could offer a degree of vocational awareness not present in a typical A level curriculum. Some staff appeared to feel that this diluted the commitment to A level-style work by some students.

Borough Sixth Form

A collaboration between two London secondary schools, both of which were single sex, 11-18 schools with a culturally diverse intake. The two schools were within walking distance of each other, and students were registered at one school but could choose subjects taught at either site. Students usually studied for three A level subjects (mostly in 'academic' subjects), with an additional subject at AS level in their first year. Achievement was good, with around three quarters of students leaving with three or more A levels and an average grade of high C, slightly better than the national average. The Head of Guidance had oversight of the UCAS process for the whole sixth form, with support from a small administrative team and a group of senior tutors. Students were assigned a personal tutor at the school where they were registered, and could also self-refer to the Head or a senior tutor. Both schools had a sixth form resource centre which incorporated general study space, and students were free to use the facilities at whichever site best suited their timetable for that day. Generic provision for UCAS applicants included a programme of talks and tutorial activities, visits from universities, and one-to-one sessions with the personal tutor to check that university choices were realistic and to advise on the personal statement. Talks for parents covered UCAS and finance. The Head of Guidance arranged or delivered in-house staff development for tutors and was working to create direct links with Oxbridge colleges with the aim of boosting acceptance rates for those students identified as potential Oxbridge entrants. A Connexions adviser had desk space at one of the resource centres. The Adviser had been a member of the LEA Careers Service and had a long history of working at both of the schools. He was available to any student, usually one or two days per week. This appeared to provide the school with a degree of HE-expertise that would be beyond the usual remit of the Connexions Service. Both schools had a long history of progression to university.

The Croft

An independent, girls' school in the south of England with a mix of day and boarding students. In the first year of sixth form students took AS in four or five subjects, choosing three of these as A levels in the second year (with an emphasis on Russell Group facilitating subjects). Achievement levels were high, though not unusual for the independent sector, with 100% of the students gaining three or more A levels and an average grade that was a high B. The Head of Guidance led a team of administrative, pastoral and teaching staff, further supported by external experts drawn from popular career destinations. Awareness of university appeared to be fostered throughout the

senior school, but serious preparation began during the GCSE year, when students were encouraged to consider preferred subject areas so that they could be assigned an appropriate guidance tutor. Each student was then given a personal list of universities (based on statistical analyses of previous student destinations and informed by league tables) that might suit their interests and achievements. Generic services for students included a wide range of talks about careers and universities (including guest speakers from universities in the EU and USA), with small group and one-to-one work on choosing universities and preparing the UCAS form. The entire programme was scheduled at least one year in advance and integrated into student timetables in a way that ensured attendance. Regular use was made of the Independent Schools' Careers Organisation, and there were strong links with individual university departments or colleges and with UCAS. Information for parents appeared to be tailored to the plans of the student rather than simply generic, and parents could request an interview to discuss their child's options. Progression to a Russell Group university was the expected destination for every student.

The following text was provided to each of the schools and colleges, who used it in line with their recognised procedures for contacting students about such opportunities. At Newtown, Greenfields and Borough the information was placed in personal tutor files to be shared with students during the next tutorial. At The Croft, the information was included in a weekly bulletin that was emailed to all students.

Research project to explore UCAS decision making

We have been contacted by a research student at the Institute of Education, University of London, who would like to visit the school *(or college)* to interview students who have applied through UCAS this year. The research will form part of her PhD thesis, which investigates how young people choose the courses and universities for their UCAS form. The interviews will be one-to-one, and will be scheduled for a 1 hour slot at a time when you have no classes, on one of the following dates *(insert agreed dates).* The information recorded in the interview will be confidential. Your comments will not be shared with the school and all student volunteers will be referred to in the PhD thesis only by a pseudonym, as will the schools. Participation is entirely voluntary and you will be able to withdraw from the interview at any stage if you change your mind.

If you would be willing to consider taking part in this project, please contact *(insert name of nominated coordinator)* by *(insert deadline date)* to express your interest in the study.