The influence of academic and social factors on degree attainment in BSc Sport and Exercise Science

by

Jayne Hastings

A thesis submitted in partial fulfilment of the requirements for the degree of EdD

School of Education

University of Nottingham

July 2021

Abstract

Although admissions procedures vary between universities, applicants' prior attainment is the main criteria used to decide whether to make an offer or accept an applicant onto a course.

Widening participation has meant that students entering higher education are now coming from a wider range of backgrounds than before and with more diverse social, economic, and educational backgrounds. However, there is limited research on the intersecting effects of qualification type, social class, gender, and ethnicity on degree attainment. Using a mixed methods study design, and informed by Bourdieu's theory of practice, this research goes further than many others who have considered qualification outcomes to identify a range of academic and social factors that influence degree attainment in Sport and Exercise Science within a post-1992 university.

The quantitative aspect of the research comprises statistical analysis of a five-year cohort of students who enrolled onto the course between 2011/12 and 2015/16 and used predominantly non-parametric statistics of categorical data. Multinomial logistic regression is used to model the relationship between the academic and social factors investigated (predictors) and degree outcomes. The academic factors, UCAS Tariff points (Tariff from 3) and Level 3 qualification, are the strongest predictors of degree outcomes and were included in the final regression model. The social factors gender and ethnicity were also included. Socio-economic class has a limited effect on attainment when other factors are taken into account and was not included in the final model. The regression model predicts better degree outcomes for those with a higher UCAS Tariff from 3, studied A-Levels, were female, and white. BTEC students were more likely to be BME, male, and from a lower POLAR4 quintile and therefore represent some of the intersectionality of factors that contribute to differential degree outcomes.

Based on the analysis of in-depth interviews with nine year two students on the course in 2019, the intersectionality of the participants backgrounds, qualification routes, genders and ethnicities was investigated to see how this may have impacted on their educational trajectories. There are no simple explanations as to the reasons for the differential degree attainment of A-Level and BTEC students. The challenges and concerns highlighted by students on the course around perceived lack of support, independent study, and different teaching, learning and assessment types could be explained by

a ‘mismatch’ between their own cultural capital and habitus and the university field that they have entered. However, it was hard to attribute any learning and assessment preferences firmly to a particular qualification type. The data suggests that the institutionalised cultural capital and habitus of 6th form colleges may be better aligned to university than that of FE colleges, facilitating better transitions and ultimately resulting in better degree outcomes. The dispositions and habitus of females may be better aligned to the university field and the study habits required for academic success and therefore may have contributed to the reason why females do better than males on the course.

Table of Contents

List of Tables

List of Figures

Abbreviations and glossary of terms

Access	The Access to Higher Education Diploma is a qualification which prepares people without traditional qualifications for study at university. Access courses are delivered by colleges in England and Wales, and are available in a range of different subjects.
A-Level	An 'advanced level' is a qualification offered across a range of subjects to school-leavers (usually aged 16-18 years old), graded A*-E, and normally taken over 2 years.
AS-Level	An 'advanced subsidiary level' is a qualification offered across a range of subjects to school leavers (usually aged 16-18 years old), graded A*E, and normally taken over 1 year. Although similar to the first year of a full A-Level, it is a qualification in its own right.
BASES	British Association of Sport and Exercise Sciences. The professional body for sport and exercise sciences in the UK.
BME	Black and Minority Ethnic is an umbrella term to incorporate a range of minority communities who live in the UK and includes people who describe themselves as Black, Asian, Mixed/Multiple Ethnic Groups, or Other; these are categories that reflect the UK census questions on ethnicity.
BTEC	Business and Technology Education Council. The body that first awarded BTEC qualifications, although they are now provided by Pearson. They combine practical learning with subject and theory content. They are available from entry level through to professional qualifications at Level 7 (equivalent to postgraduate study). In this study, BTEC is the term used when referring to students who have studied Level 3 BTEC Nationals.
BTEC Nationals	BTEC Nationals are equivalent to A-Levels so are a Level 3 qualification. The Extended Diploma, Diploma, Extended Certificate, and Certificate are equivalent to 3, 2, 1 and 0.5 A-Levels, respectively.
BUES	BASES Undergraduate Endorsement Scheme. Awards endorsement to sport and exercise science degree courses that provide undergraduates with the opportunity to develop the knowledge and skills essential to enter into the profession. Launched in 2005, BUES is now the recognised standard for all sport and exercise science undergraduate degree programmes in the UK

Cambridge National

A Cambridge National is a vocational qualification, equivalent to GCSEs, for 14–16 year olds

Cambridge Pre-U Cambridge Pre-U is a Level 3 qualification that prepares learners for university. It is available in 24 Principal Subjects with each being a two-year programme of study with exams at the end. Short Courses (typically one-year) are also available in some subjects.

Cambridge Technical

A Cambridge Technical is a vocational qualification at Level 2 and Level 3 for students aged 16 and over. They're designed with the workplace in mind and provide a high-quality alternative to A-Levels. The certificate, introductory diploma, subsidiary diploma, diploma, and extended diploma are equivalent to 0.5, 1, 1,5, 2, and 3 A-Levels, respectively.

CNAA Council for National Academic Awards. Governed and administered Polytechnics at the national level in the UK

Extended project Extended Project Qualification, sometimes abbreviated to EPQ, is a qualification taken by some students in England and Wales, which is equivalent to 50% of an A-Level.

FE Further education. In the UK, FE is education in addition to that received at secondary school, that is distinct from the higher education offered in universities and other academic institutions. FE is provided by school sixth forms, sixth form colleges or further education colleges.

GCSE General Certificate of Secondary Education is an academic qualification in a particular subject, taken in England, Wales, and Northern Ireland They were introduced in 1988 to establish a national qualification for school leavers at 16.

Good degree A first or upper second class (2.1) degree classification.

GPA Grade Point Average. This is a number representing the average value of the accumulated final grades earned in courses over time. It is normally calculated by adding up all accumulated final grades and dividing that figure by the number of grades awarded.

HE Higher Education. Tertiary education leading to award of an academic degree.

HEFCE The Higher Education Funding Council for England. Distributed public money for teaching and research to universities and colleges. It closed on 1 April 2018 and was replaced UK Research and Innovation and Office for Students.

HEI Higher Education Institution. A term from the Further and Higher Education Act 1992. Under the Act, it means any provider which is one or more of the following: a UK university; a higher education corporation; an institution designated as eligible to receive support from funds administered by HEFCE, aside from further education colleges.

HESA Higher Education Statistics Agency. The experts in UK higher education data, and the designated data body for England.

IB International Baccalaureate. A 2-year diploma course accepted for entry to HE as an alternative to A-Levels.

JACS The Joint Academic Coding System. A way of classifying academic subjects in higher education.

Level 3 qualification

In the UK (except Scotland), most qualifications fit into one of nine levels. The levels are based on the standards of knowledge, skill and competence needed for each qualification. Level 3 qualifications are those studied after GCSE level (Level 2) and are required for entry to HE. Examples include AS/A-Levels, BTEC Nationals, BTEC certificates, awards and diplomas, IB diploma, Access to HE diploma, OCR Nationals

NPD National Pupil Database. A record-level administrative data resource curated by the UK government's Department for Education that is used for funding purposes, school performance tables, policy making, and research.

OCR Nationals Vocational qualifications designed by the Oxford Cambridge and RSA awarding body to teach practical workplace skills. The Level 3 OCR Nationals were designed for students aged 16 and over. They have now been replaced by the Cambridge Nationals and Technical qualifications.

POLAR The participation of local areas classification groups areas across the UK based on the proportion of young people who participate in higher education. It looks at how likely young people are to participate in higher education across the UK and shows how this varies by area. POLAR classifies local areas into five groups - or quintiles - based on the proportion of young people who enter higher education aged 18 or 19 years old. Quintile one shows the lowest rate of participation. Quintile five shows the highest rate of participation.

Post-1992 university

Synonymous with new university or modern university, is a former polytechnic or central institution in the UK that was given university status through the Further

	and Higher Education Act 1992, or an institution that has been granted university status since 1992 without receiving a royal charter. This is used in contrast to "pre-1992" universities.
Pre-1992 university	
	See post-1992 definition.
Russell Group	A self-selected association of 24 public research universities in the UK. The group is headquartered in Cambridge and was established in 1994 to represent its members' interests, principally to government and parliament. It was incorporated in 2007. Its members are sometimes perceived as being the most prestigious universities in the country.
SEC	Social economic classification. A group of people with similar characteristics including social and economic standing, level of education, profession, ethnic background.
SES	Socio-economic status. A combination of financial income, level of education, and occupation.
T-Levels	Technical Levels are new courses and equivalent to three A-Levels. These two-year courses, which launched in September 2020, offer students a mixture of classroom learning and 'on-the-job' experience during an industry placement of at least 315 hours (approximately 45 days). They prepare students for work, further training or study.
UCAS	Universities and Colleges Admissions Service. UK-based organisation whose main role is to operate the application process for British universities.
UCAS Tariff points	The UCAS Tariff is a means of allocating points to post-16 qualifications, based on a simple mathematical model which uses a qualification size and grading scale to generate a total number of points.
VET	Vocational and education training. Sometimes simply called vocational training, is the training in skills and teaching of knowledge related to a specific trade, occupation or vocation in which the student or employee wishes to participate. Traditionally, this has been non-academic.
WP	Widening Participation. Relates to higher education and is a major component of government education policy in the UK. It consists of an attempt to increase not only the numbers of young people entering higher education, but also the proportion from under-represented groups (those from lower income families, people with disabilities and some ethnic minorities). In this way it is hoped to redress the inequalities in participation between social classes.

Acknowledgements

It is my pleasure to acknowledge the roles of several individuals who were instrumental for completion of my EdD research.

First and foremost, I am extremely grateful to my supervisor, Prof. Andrew Noyes for his invaluable advice, encouragement, continuous support, and patience during my EdD study. I couldn't have wished for a better supervisor.

I would also like to express gratitude to my second supervisor, Dr Michael Adkins for his insightful comments and suggestions during the writing of this thesis.

I would also like to offer my special thanks to Dr Alun Owen, Head of Statistics Advisory Service at Sigma Mathematics and Statistics Support Centre, Coventry University. His assistance with the statistical analysis of my cohort data was invaluable.

I would also like to thank the students involved in the qualitative aspect of my research, both during the interview pilot phase and those who volunteered to be interviewed during the actual study.

My gratitude extends to the Faculty of Health and Life Sciences, Coventry University, for the funding opportunity to undertake my studies at the School of Education, University of Nottingham.

I would also like to thank to Ann Green for encouraging me to embark on my Doctoral studies and for her unwavering support and belief in me throughout.

My deepest appreciation goes out to my husband Adrian, my children Jessica and Benjamin, and the rest of my family. Without their tremendous understanding and encouragement over the past few years, it would have been impossible for me to complete my EdD. Thank you to my parents who have always encouraged me in my education and supported my undergraduate and Masters degree study; without that support I would not have had the opportunities a good education has brought to me including undertaking this EdD.

Finally, I would like to extend my gratitude to my friends for their encouragement and support all through my studies.

My EdD journey has been a rollercoaster, with high points and low points as I was warned there would be. But who knew that when I embarked on this journey in 2015 that I would be diagnosed and successfully treated for cancer in 2018, as well as be writing my thesis during a global pandemic. However, I would like to finish with the following quote that seemed to fit the EdD journey as well as other journeys I have faced in life: “If it doesn’t challenge you, it won’t change you.” (Fred DeVito, Fitness Expert). I can truly say my EdD journey has been both challenging and transformational.

1 Introduction

1.1 Introduction

The impetus for this Doctoral study arose from the need to address the concerns that students on Sport and Exercise Science with vocational backgrounds were not doing as well in their university studies as A-Level students were, and their degree outcomes reflected this. Furthermore, it was also about ensuring the students selected for this course are likely to be successful. This study therefore investigates which academic and social factors could be contributing to differential attainment between certain groups of students, including which qualification pathway they have followed post-16, as well understanding which factors are important in predicting degree outcomes. The study also explores why certain factors may influence a student's transition and progression through university and ultimately their degree outcome. Collecting the 'what' and the 'why' pieces of the puzzle are important when trying to understand and address differential attainment and provide better support for future cohorts of students.

This introductory chapter will set the context in which this study is located. The general structure of higher education (HE) in England will be outlined before detailing the changes in HE participation over the decades. The qualification pathways of those entering HE will follow, including the perceptions of vocational qualifications. The chapter will then focus on HE outcomes, and in particular key concerns with regards to differential degree outcomes between the different qualification pathways. The degree subject area that is the focus of this study will then be introduced, before introducing myself as the researcher, my own higher education institution (HEI), and the key motivations, aims and objectives of the present study. The chapter will conclude by outlining the overall structure of this thesis as presented in the subsequent chapters.

1.2 Higher education

HE in England is provided by universities and non-university institutions such as HE colleges, university colleges and private colleges. Universities provide degree programmes that culminate in a degree (bachelor's, master's, or doctoral degree) and non-degree programmes that lead to a vocational qualification such as a certificate or diploma. Until the mid-20th century, HE was an elite system with participation rates less than 10% (Chowdry et al.

2013). The 1960s saw the creation of a number of 'new universities', including the Open University, before further expansion of universities in the late 1980s. The expansion of HE in the 1960s also saw the formation of polytechnics offering higher diplomas, undergraduate degrees, and post graduate education. Their original focus was applied education for professional work and engineering, as well as applied science subjects. They were governed and administered at the national level by the UK Council for National Academic Awards (CNAA), which was chartered by the British government to validate and award degrees and maintain national quality assurance standards. A division between universities and polytechnics existed until 1992 when the Education Reform Act established a unified HE system whereby all polytechnics became universities and could award their own degrees (Blanden and Machin 2004). HEIs that became universities in 1992 are therefore often referred to as post-1992 universities. Apart from a small number of private universities and colleges, undergraduate education has been largely state-funded since the 1960s. However, due to the expansion in the number of students accessing HE in the 1980s and 1990s the pressure on public finances to fund HEIs resulted in annual top-up fees being introduced in England in 1998/99, with this eventually changing to annual fees of up to £9,000 for those students starting in the 2012/13 academic year (Bunce, Baird, and Jones 2017).

1.3 Participation and pathways into higher education

Since the 1960s, HE has moved from being an experience for an elite minority to being a mass experience (Smith and White 2015). In 1963 just 8.5% of the British population went to university, this increasing to 40% by the start of the 21st century (Chowdry, Dearden, and Wyness 2010). The Government's commitment in the late 1990s to widening participation (WP) aimed to increase the number of students from socio-economically disadvantaged backgrounds and other under-represented groups (e.g. some ethnic minority groups, students with disabilities) also contributed to the growth in the number of students entering HE. As a result, students entering HE are now coming from a wider range of backgrounds than before and with more diverse social, economic, and educational experiences.

Admissions procedures vary between HEIs. However, a prospective student's attainment in those qualifications studied at the level prior to HE (Level 3) is the main criteria used to decide whether to make an offer or accept an

applicant onto a course (HEFCE 2015). All students applying to a University in England will do so via the Universities and Colleges Admissions Service (UCAS), which is the organisation whose main role is to operate the application process for British universities.

Young people applying to university hold a wide range and combination of qualifications, and UCAS have recently reported that applicants hold over 750 different qualifications, something that is almost unique to the UK (UCAS 2019). In England the vast majority of learners take 'traditional' academic qualifications such as A-Levels (Advanced level qualifications). A-Levels are subject-based qualifications that can lead to HE, further study, training, or work and students normally study three or more A-Levels over two years. In recent years there has been a substantial increase in the number of students entering HE with alternative qualifications to A-Levels and in particular vocational qualifications. According to Rouncefield-Swales (2014), WP and the advent of the mass HE system has contributed towards this increase. As a result of this, progression into HE from vocational qualifications has become a focus of attention, particularly Business and Technology Councils' (BTEC) qualifications. The BTEC National qualifications have been around since the 1980s and the specifications are updated every few years, most recently in 2016. Many HEIs have widened access to admit students with these 'non-traditional' qualifications, and according to Pearson (2020), "alongside A levels, BTEC Nationals are the most widely-recognised qualification for admission to HE. They are Level 3 vocational qualifications that provide specialist, work-related learning across a range of sectors". BTEC Nationals have a focus on specialist knowledge, practical skills and understanding that students need to progress along their chosen learning and career paths. The BTEC National Extended Diploma is the most significant Level 3 qualification and is equivalent to studying three A-Levels, but BTECs equivalent to studying half, one, and two A-Levels are also available (Pearson 2020).

As more young people in England have taken vocational qualifications post-16, the number of university entrants with BTECs has grown, increasingly in combination with A-Levels. In the 2019 UCAS entry cycle, the majority of applicants (62.4%) domiciled in England continue to have studied A-Levels only, accounting for 64.2% of university acceptances at age 18 (UCAS 2019). In the same cycle, UCAS data shows that BTECs were studied by 9.9% (22,785) of the applicants and 9.8% (20,540) of accepted students in England. Although slightly up (less than 0.5%) on 2010, it is less than the

recent peak of 2015 when the number of BTEC students reached 12.6% (29,660) and 12.1% (24,450) of the applicant and acceptance cohorts in England, respectively (UCAS 2019). There has been marked increase in the proportion of students in 2019 who applied (7.7%) and were accepted (7.5%) onto a HEI course compared to 2010 (3.8%) who have studied a combination of both A-Level and BTEC qualifications. Consequently, this has been accompanied by a significant reduction in the number of students applying and being accepted into university with just A-Levels in 2019 compared to 2010; 74.6% vs. 64.2% for applications, and 70.3% vs. 62.4% for acceptances. The growth in students entering UK HE with vocational qualifications is also evidenced with other Applied General qualifications, such as the OCR Cambridge Technical. According to UCAS, data from the 2019 UCAS admissions cycle show that there were 76% (4,475) more UK 18-year-old applicants holding an OCR Cambridge Technical in 2019 than there were in 2017, and one fifth of applicants classified by UCAS as having 'other' qualifications, are holding one of these qualifications which equates to ~10,000 students (UCAS 2019). This rise of vocational qualifications, and the matching decline of A-Levels as the principal curriculum for 16- to 19-year-olds, has implications for HE in the future including within my own post-1992 university.

In 2014, Rouncefield-Swales suggested that students applying to HE with vocational qualifications such as BTECs are more likely to be from disadvantaged backgrounds, male and from ethnic minority backgrounds compared to A-Level students (Rouncefield-Swales 2014). More recent data continues to support this (UCAS 2019), and shows that improvements in participation among less affluent groups has been largely from those achieving BTECs.

1.4 Perceptions of vocational qualifications

Historically, the upper secondary educational system in England has been of a broadly dichotomous nature. Students considered to be at the higher end of the ability range who obtain the necessary GCSE grades progress to A-Levels, and then possibly University. This 'academic' route has individuals competing within a national framework whereby central government determines the curriculum content and its assessment. However, the 'vocational' route has been generally characterised as being for those who have not achieved highly in the academic component of the National Curriculum as indicated by their GCSE results. For these individuals, the traditional options have been to find an apprenticeship, receive on the job

training, or undertake any one of a wide range of vocational qualifications (Conlon 2002).

The Wolf Report (Wolf 2011) referred to vocational qualifications as “inferior alternative qualifications” (18) and suggested that “academic and vocational qualifications in England have been bedevilled by well-meaning attempts to pretend that everything is worth the same as everything else” (8). What is meant by worth is not explained in the report, but it does suggest that BTECs are considered valuable preparation for the labour market as they are focussed on work-based skills. Gill and Rodeiro (2014) have also explained that preparing students for university study is not the BTECs primary purpose. The fact that a smaller proportion of students taking vocational qualifications at Level 3 progress to HE in comparison to those taking academic qualifications is sometimes cited as evidence of the bias against vocational qualifications (Vickers and Bekhradnia 2007). Myhill and Morgan (2019:17) have also suggested there is evidence of prejudicial decision-making around entry qualifications by Russell Group universities, with a recent publication (Russell Group 2017) warning prospective students that BTECs may impede their progression into HE and may not be suitable for many Russell Group degrees. It does appear to be the case that whilst more vocationally qualified young people are being encouraged to progress to HE, they are spread unevenly across the sector (Connor, Sinclair, and Banerji 2006). Hayward and Hoelscher (2011) carried out a comprehensive study on access to HE for students with vocational backgrounds and showed that these students were at a disadvantage compared with those progressing through academic pathways in terms of the HEI as well as the subjects they gain access to. Prior to this, Schwartz (2004) and Hoelscher et al. (2008) had shown that students with non-traditional qualifications typically progressed to post-1992 HEIs and colleges of HE, whilst students with academic qualifications were more likely to study at pre-1992 universities. Therefore, it should come as no surprise that data analysed as part of the recent Transforming Transitions project shows that BTEC students were less likely to study at a Russell Group university and more likely to study at low-tariff providers (Banerjee 2019).

With students progressing to HE with different types and combinations of qualifications that use different grading systems, universities need to be able to compare students using a common metric (Gill 2018). UCAS therefore developed a tariff system that allocates a point score for the achievement of each grade in a wide range of qualifications. For example, a student

achieving the highest D*D*D* grading in the BTEC Extended Diploma achieve the same tariff point score as a student achieving A*A*A* at A-Level. However, the UCAS tariff point allocation system relies on the assumption that the point scores are correctly aligned between qualifications; an assumption that has been questioned in recent years, with BTECs being reportedly 'overvalued' in comparison to A-Levels (Gill 2016). This has contributed to the prejudice again BTECs and other vocational qualifications. What also needs to be considered is these qualifications are different in terms of the knowledge and skills acquired, and their methods of assessment, and therefore one could argue that a direct comparison between them cannot and should not occur anyway.

1.5 Higher education outcomes

When assessing how successful WP policies and initiatives have been, I agree with Myhill and Morgan (2019:22) who suggest that we need to ensure that 'students are supported throughout their HE journey – not just through the entry process'. However, BTEC students are more likely to drop out of their university studies compared to A-Level students even when prior attainment is accounted for (Hayward and Hoelscher 2011). Rouncefield-Swales (2014), in their study on a sample of students in 2012/13, found that only 67% of BTEC students completed their study compared to 92.3% of A-Level students. She also reported that this is not solely due to academic failure but other personal and social problems such as finance, health, and employment. Furthermore, she argues that whilst there is an apparent correlation between disadvantaged students and vocational study at post-16, attrition rates are linked to all disadvantaged students regardless of their L3 qualifications. This is a valid point and highlights the fact that educational outcomes are almost certainly the result of a complex array of factors and not just qualifications.

There has been limited research which has compared degree outcomes of students taking different Level 3 entry qualifications, partly because of the predominance of A-Levels and the lack of alternative entry qualifications until more recently. Most of the research that relates degree outcomes to Level 3 entry qualifications focuses on the predictive capability of A-Levels, and groups of students, for example gender, ethnicity, school type (HEFCE 2003; HEFCE 2014; HEFCE 2015; Naylor and Smith 2004). The report by HEFCE analysed data from the 1997-98 university entrants indicating a strong relationship between A-Level grades and achievement in HE. The report found that A-Level grades, as summarised by A-Level points, were the single

most important factor in determining the expected HE achievement (HEFCE 2004:3). However, they do later state, although not widely reported, that "equal exam results do not result in equal potential" (Smithers 2004:3) which does appear to acknowledge that additional factors influence student outcomes.

More recently there has been some interest in alternative Level 3 qualifications and how well they prepare students for university in specific subjects (Brimble 2015; Hatt and Baxter 2003; Huws and Taylor 2008; McCoy and Adamson 2016; Murphy 2009). This research does suggest that it is not only attrition rates where differential outcomes are apparent, as most of these studies show that students from vocational backgrounds do less well in their in their overall degree classification than traditional A-Level students. The British media has become aware of this and published numerous headlines over the last decade or so which have highlighted these concerns, for example: 'universities are failing students with vocational qualifications' (The Guardian, 28th July 2009), 'BTECs "set students up for failure" at university' (The Times, 2 November 2014), and 'students with BTECs do worse at university' (The Guardian, 29th November 2017). The recent political focus on vocational and education training (VET) has led to several reports being produced that have investigated VET provision in the UK. This includes the Wolf Report (Wolf 2011) which raised concerns over the poor attainment of students entering HE with alternative qualifications to A-Levels, particularly BTEC and other Level 3 VET courses. This again adds to the tendency to see vocational qualifications as inferior and less valuable than A-Levels.

It should also be noted that differential degree outcomes are not only apparent between qualification types, but also differ according to other student characteristics; research showing students from low-participation neighbourhoods (HEFCE 2014; Mountford-Zimdars et al. 2015) are less likely to get a 'good' degree (2.1 or first class), and white students obtain higher degree classifications than black, Asian and ethnic minority (BAME) students (HEFCE 2013). Therefore, given that these are the groups that are more likely to be taking vocational qualifications such as BTECs, it adds to the complexity of predicting student degree outcomes.

1.6 Sport and Exercise Science

Whilst there has been an increasing level of interest in recent years in degree outcomes from students entering university from different qualification

pathways, this hasn't included my own subject area of Sport and Exercise Science.

Sport and Exercise Science is described by the British Association of Sport and Exercise Science (BASES) as "the application of scientific principles to the promotion, maintenance and enhancement of sport and exercise related behaviours" (BASES n.d.). This is achieved through three branches of science: biomechanics, physiology, and psychology, and through interdisciplinary approaches. Biomechanics is the examination of the causes and consequences of human movement and the interaction of the body with apparatus or equipment through the application of mechanical principles. Physiology is concerned with the way that the body responds to exercise and training. Psychology seeks to provide answers to questions about human behaviour in sport and exercise settings. Interdisciplinary approaches to Sport and Exercise Science seek to contribute to the body of knowledge or solve a real-world problem using two or more disciplines in an integrated fashion from the outset.

Sport and Exercise Science can be applied within a broad range of contexts. The most basic distinction that can be drawn is between its use in a 'sport science' context versus its use in an 'exercise science' context. Sport science refers to the application of Sport and Exercise Science principles within high performance sport, where the application of science is concerned with maximising the performance of an athlete or team. Exercise science refers to the application of sport and exercise science principles within health and fitness, where the application of science is primarily concerned with the improvement of physical and mental health through exercise. This covers both the role that exercise can play in preventing poor health and chronic diseases, such as coronary heart disease and diabetes, and the role of exercise in treating a variety of physiological and psychological disorders. According to BASES (BASES n.d.), the career opportunities available in Sport and Exercise Science are expanding all the time with graduates being employed by hospitals, universities, professional sports clubs, sport institutes and private healthcare providers, as well as a variety of other organisations.

Sport and Exercise Science courses include both theoretical aspects and practical work. Lectures and tutorials are supported by independent study and research, while knowledge is applied through both laboratory work and practical exercise sessions. A variety of assessment types have been included in the Sport and Exercise Science degree at my own university to

try and account for the different pedagogical approaches of the different qualification routes into HE. The approaches to teaching and learning, as well as formative and summative assessment, also aim to develop the skills needed to excel on the course as well as progress onto further studies or employment in the field of sport and exercise science or related careers. The course is endorsed by the BASES Undergraduate Endorsement Scheme (BUES), a scheme that was launched in 2005 and is now the recognised standard for all Sport and Exercise Science undergraduate degree programmes in the UK. Therefore, whilst there are variations in course content and structure, as well as approaches to teaching, learning and assessment between HEIs, having BASES endorsement will mean a course meets criteria covering the necessary foundation of Sport and Exercise Science knowledge, technical skills and professional development competencies required to succeed in the profession. As of the time of writing, there are 61 Sport and Exercise Science and related undergraduate degree courses in the UK that are BASES endorsed, highlighting the competition faced by HEI such as my own when recruiting students. Of those 61, only one is a Russell Group university, with most of the courses being delivered by post-1992 universities. There are also several HEIs running non-endorsed courses and therefore add to the competition.

For entry onto Sport and Exercise Science, most institutions require A-Level Physical Education (PE) or an A-Level science subject (e.g. Biology) (BASES n.d.). For example, in my own university we specify that a student must have either A-Level PE or Biology. However, many universities also accept students with alternative qualifications, such as BTECs. My university accepts the BTEC Extended Diploma in Sport and Exercise Science (equivalent to 3 A-Levels) as the preferred BTEC qualification, although we do also accept students with other selected Level 3 BTEC Sport and Exercise Science or BTEC Sport qualifications alone (three A-Level equivalents) or in combination (those equivalent to one or two A-Levels) with other qualifications such as A-Levels.

HESA (Higher Education Statistics Agency) data reports that 24,165 England-domiciled students were enrolled onto a Sport and Exercise Science course (JACS code C600)[1] in the 2018/19 academic year. However, despite

[1] The Joint Academic Coding System (JACS) is a way of classifying academic subjects in higher education. Sport and Exercise Science at course level has a JACS code of C600; the principle subject area for Sport and Exercise Science as a whole is C6, which is part of the major subject area of Biological Sciences. There are 19 major subject areas. (HESA n.d.)

there being a decline of just over 9% since 2014/15 from 26,670, the subject still appears to be popular. What is apparent is that Sport and Exercise Science is a subject favoured by males, with only 30.2% of acceptances being from females in the 2019 application cycle (UCAS 2019).

HESA data presented in the Transforming Transitions project (Banerjee 2019) has shown that a large proportion of students who enter HE with vocational qualifications were studying subjects such as Creative Arts and Design, Business and Administrative Studies, Biological Sciences, subjects Allied to Medicine, Computer Science and Social Studies. Students studying Sport and Exercise Science are part of the Biological Sciences group. As suggested by Banerjee (2019), it could be that these are some of the most popular subject choices for BTEC students, or that students were more likely to be accepted onto these courses. Data analysed as part of the Transforming Transitions project showed that BTEC students were more likely to study Sport and Exercise Science and least likely to study Computer Science (Banerjee 2019). A reason for this could be that the BTEC Sport and Exercise Science matches more closely the subject content and skill set required to study this subject at degree level.

1.7 The current study

I have worked at my current university for over 23 years, starting as a Lecturer in Sport Science before moving into Leadership roles within the same School, the School of Life Sciences. I was the undergraduate admissions tutor for Sport Science-related courses for many years, before embarking on my first leadership role as an Associate Head. As part of my Associate Head role, I lead on recruitment and marketing for the whole School. Therefore, I have for many years been involved in the decisions made regarding recruitment and admissions. The School is part of a wider Faculty of Health and Life Sciences at a large post-1992 Midlands University, which in 2019 had more than 29,000 undergraduate and almost 6,000 postgraduate students. The university strongly believes in and promotes WP and accepts many students with vocational qualifications.

This research has been undertaken within the context of a changing HE landscape, one that has been underpinned by increasing and WP, and often with highly marketized and competitive approaches to recruitment. Despite this, universities such as my own, need to ensure they are selecting applicants with the potential to succeed. As suggested by Thomas (2002), there is a temptation to link greater participation in HE with declining entry

standards and then blame the 'new' student constituencies for being poorly prepared for HE and/or lacking academic ability. Glanville, Green, and Hannan (2007) report this stereotype of students who have entered HE as a result of WP being more demanding and less academically able than more traditional entrants. The increase in students with BTEC progressing onto courses within my own School, along with acceptance of students with lower grades than originally offered to help meet challenging recruitment targets, has been cited by colleagues as possible reasons for poor progression rates and attainment on some courses. This includes my own discipline area of Sport and Exercise Science. Within 5 years (2011-2015) a significant increase occurred in the proportion of students being admitted onto the course with BTECs, either alone (from 19.2 to 28.9%) or in combination with A-levels (from 11.6% to 26.3%) with the concomitant reduction in those who studied A-Levels only (from 56.2% to 27.2%). My own perceptions and those of colleagues over the years have agreed with the findings of Thomas (2002) and Glanville, Green, and Hannan (2007), with a negative view of students with vocational qualifications such as BTECs and the lack of equivalence with A-Levels. Furthermore, there have been concerns with regards to admitting students with much lower grades than in their original university offer, especially for BTEC students. Many discussions have taken place with regards to lowering the grades we will accept, including whether we should lower the grades for all qualifications by the same amount, and just how far can grades can drop before degree outcomes will be significantly affected. These discussions have often been based on perceptions and prejudice rather than on good evidence. Therefore, there is a need for evidenced-based admissions decisions and a better understanding of the factors that affect degree outcomes, including transition into university.

This study aims to understand how prior attainment, and related educational and life experience, influences university transition and degree outcomes in my own discipline area of Sport and Exercise Science. The study will also investigate how type of qualification and other student demographics such as gender, social class, and ethnicity influence attainment. This is because it has become more apparent during my involvement in admissions, teaching and learning in HE, and during the proposal phase of this study, that factors affecting attainment are more complex than just entry qualifications. This study goes further than merely looking at input-output patterns to try and understand the reasons behind these. I therefore make use of some of the ideas of Pierre Bourdieu to provide a conceptual and empirical understanding

of how various factors influence degree attainment in Sport and Exercise Science at a post-1992 university.

Regardless of qualification route or student demographics, it is vital that all students entering HE achieve their potential. It is hoped that the findings of this research will contribute to a greater understanding of the association between entry qualifications and other student demographics with degree attainment in Sport and Exercise Science within my own post-1992 university. This knowledge may then inform admissions policy and procedures, support students during their transition into university, and help target and support students at risk of poor attainment. Whilst it is acknowledged that the context of this study is Sport and Exercise Science within my own HEI, it is hoped that the findings may also be useful to those interested in Sport and Exercise Science or other similar disciplines, particularly post-1992 HEIs and/or those with a significant cohort of students who enter with non-traditional entry qualifications or disadvantaged backgrounds.

Following this introductory chapter this thesis will be structured into the subsequent chapters.

Chapter 2 details my literature search and selection strategy, before providing a review and synthesis of the pertinent literature in the area. This will include literature on the relationship between entry qualifications and degree attainment, alternative entry qualifications (to A-Levels), and student characteristics that may influence degree attainment. This chapter will finish by outlining the studies research questions.

The theoretical framework will be presented in Chapter 3. Bourdieu's theory of practice will be introduced, followed by the key concepts of this theory: capital, habitus, and field. I will review studies that have used Bourdieu as the theoretical framework to investigate educational inequality, followed by those which used Bourdieu to investigate gender, ethnicity, and educational inequality.

The methods and methodology chapter will follow in Chapter 4. The chapter provides detail of the study's methodology, the researcher's positionality, the mixed-methods study design and research methods. It also considers ethical aspects of the research.

Chapter 5 presents the quantitative analysis. It begins with the descriptive statistics of the data sample, before presenting each of the factors affecting

degree attainment that were investigated in this study: prior educational attainment (Level 3 qualifications), gender, ethnicity, socio-economic class representation in HE, POLAR4 classification, and finally the interaction between these factors. Regression analysis will be presented at the end of this chapter.

The results of the interview analysis are presented in Chapter 6 and will include the following main themes: family capital and habitus, other cultural resources, secondary and post-16 education, early university experience, and degree success and career aspirations.

A discussion of the findings in Chapter 4 and 5 will take place in Chapter 7 and will be structured by way of the research questions.

The main body of the thesis will then finish with Chapter 8, the conclusions. The study's research questions will be revisited, and the main concluding points detailed. This will be followed by the contribution to knowledge this study makes, followed by my recommendations. The chapter will conclude with my reflections on the study which includes the research process and the study's limitations.

2 Literature review

2.1 Introduction

Having set out the context for the study and the particular focus on Sport and Exercise Science, this chapter presents a review and synthesis of the literature relevant to the research. Firstly, I provide an outline of how relevant literature was identified and selected for inclusion. The review is organised into the following areas: the relationship between entry qualifications and degree attainment; alternative entry qualifications; student characteristics that may influence degree attainment; considerations on the context and purpose of the research reviewed. These areas have been identified through consideration of the literature available and synthesis of their findings.

As detailed in the introduction chapter, higher education institutions (HEI) need to ensure they are selecting applicants with the potential to succeed despite the range of recruitment challenges they may face. Attainment in Level 3 qualifications continues to be the main criteria used to decide whether to make an offer or accept an applicant onto courses (HEFCE 2015). For many years A-Levels have been the principal method by which universities selected students for admission so this review begins with studies that have investigated the relationship between A-Levels and degree attainment. This is followed by a review of studies that have investigated how well alternative qualifications such as BTECs predict degree attainment. A review of studies that have investigated the differential outcomes of students from different qualification pathways will also be included due to the significant rise in the number of students entering HE with alternative qualifications such as BTECs as described in Chapter 1. This is followed by a consideration of studies that have investigated other student demographics such as gender, ethnicity, and social class as it is becoming increasingly apparent that student's degree outcomes are not just influenced by prior attainment. The literature review will then end with a consideration of the context and purpose of the research reviewed in this chapter.

2.2 Literature search and selection strategy

A comprehensive search of literature related to the research question was performed. Research within the last 20 years was the main focus in the

initial identification of research. This was extended to 1980 once it became apparent that some of the key research those studies cited was pre-2000.

The initial search began with literature that investigated the relationship between entry qualifications and degree attainment using the following key search terms in a variety of combinations: Degree attainment, degree outcome, degree performance, degree results, entry qualifications, prior qualifications, A-Level, recruitment, selection, admissions, predict, university, higher education. This was then widened to identify literature that included vocational qualifications as well as other background characteristics of students such as gender, ethnicity, and social class by the addition of the following terms: Vocational qualifications, BTEC, gender, ethnicity, class, social class, socio-economic status, attainment gaps. To identify literature on Sport and Exercise Science, the search was also widened to include the following: Sport and Exercise Science, Sports Science, sport.

In addition to using databases, the reference list of relevant articles was also used to identify additional relevant literature. Only literature that was on UK HEI and published since 1980 was included in the literature review.

The literature search failed to identify any research which focussed specifically on Sport and Exercise Science. The review therefore contains studies on other subjects but focuses more heavily on those that are similar in terms of scientific content, sport-related, having a significant practical component, an interdisciplinary nature, and/or were considered valuable due to their inclusion of qualitative data or use of theory.

2.3 Literature review

2.3.1 Relationship between entry qualifications and degree attainment

There is a long history of research which has investigated the relationship between entry qualifications and degree attainment within UK universities. Many studies are relatively small in scale and within single universities. However, there are examples of larger scale studies across universities which use data available nationally at a high level of aggregation; for example, data from the Higher Education Statistics Agency (HESA) or its predecessor the Universities and Statistics Record. Based on this, the literature review was based on levels of aggregation and methodology of the studies,

reviewing the large-scale studies first, followed by single university studies like the current study; meta-analyses and studies using alternative data analysis methods are then reviewed.

2.3.1.1 Large scale studies

The large-scale studies conducted have generally found a statistically significant relationship between A-Level and degree attainment. Studies using Universities and Statistics Record data by Sear (1983) and Chapman (1996) both found statistically significant relationships between A-Level points and degree results. In Sear's study, although the correlations were significant in all 9 academic subject groups studied, the strength of the associations were invariably small. The proportional variation in degree classes associated with A-Level scores at this level of aggregation is never much above 10% and for some subject groupings is much less. Sear subsequently acknowledges the potential weakness of the analysis being conducted on broad subject groupings which often had widely different entry standards. In the study by Chapman, the strength of the correlations varied between subjects; the strongest was for biology and the weakest for politics. Sear's study found science to have the strongest correlation with architecture having the weakest. In comparison to Sear's study which was conducted on a single year, Chapman's study was conducted over a 21-year period. Smith and Naylor have conducted several studies in this area. For example, they investigated predictors of degree performance across UK universities for the 1993 student cohort. After controlling for both subject studied and institutional characteristics of the university attended, they found that degree class is positively influenced by A-Level score (Smith and Naylor 2001). This was supported in a subsequent study by Naylor and Smith (2004) on graduates of economics-related degrees across UK universities (graduated 1985, 1993, 1998). Although this study focused on the influence of prior educational attainment on degree performance, it differed to previous studies in the area as this was investigated both as an absolute measure of ability and in terms of the students' relative performance, or rank (based on their A-Level score), within their own university-year cohort. Analysis revealed that degree performance depends not only on A-Level scores, as they had previously found (Smith and Naylor 2001), but also on the individual students' ranking within their cohort.

2.3.1.2 Single university studies

There appears to have been considerably more research conducted within single universities. For example, in view of the importance attached to entry qualifications in medical school selection, several studies have examined the relationship between achievement in these qualifications and subsequent degree outcome (Lumb and Vail 2004; Montague and Odds 1990; Wilding and Valentine 1992). In all studies, results suggest that A-Level results correlate with degree outcome, with Montague and Odds (1990:7) concluding that their results "emphasize the importance of academic criteria in the medical school selection process".

Similar studies have been conducted in biosciences, psychology, and nutrition. For example, King and Aves (2012) examined the relationship between A-Levels and achievement in biosciences at the University of Exeter. They found a significant correlation between A-Level tariff and both year one and final degree mark for all three cohorts of students studied. Furthermore, the correlation between A-Levels and year one mark was higher than for final degree mark. The authors suggest that this demonstrates students pick up numerous other skills throughout their course which contribute to their success. Whilst the cohorts of students investigated in this study did have entry qualifications other than A-Levels which accounted for 11.5% of the intake, the authors made the decision to exclude them from the analysis.

In contrast, the study on a single-cohort of psychology students by Huws, Reddy, and Talcott (2006) at Aston University found no predictive effect of A-Level grade or subject on academic achievement. The authors acknowledged that the restricted range of grades at A-Level may explain the lower predictive ability of A-Levels compared to GCSE grades found in their study. Indeed, attenuation of the data range would affect many of the studies in this area as most universities only accept students within a narrow range of grades. An additional factor which may have contributed to the results was the small sample size (n=56) due to the study being on a single cohort of graduates. This study highlights the over-reliance on the highest qualification, which is at Level 3 for most university entrants, when making admissions decisions. Another study with a small sample size (n=105) despite their being three courses investigated, is the study by Owusu-Apenten and Xu (2012). This study included all types of entry qualifications and correlated UCAS tariff points with performance across the undergraduate degree levels as well as the final degree mark. Their findings suggest that there was a weak but significant positive correlated with academic

performances in all years when all nutrition-related courses were considered together. However, what is not indicated is the breakdown of the entry qualifications of the students included in the analysis to gain a more in-depth understanding of the contributions the different qualifications made to the results which would have been useful. Furthermore, students were excluded from the study if they had no final degree mark which appears to be common in studies which investigate the relationship between entry qualifications and degree outcome.

2.3.1.3 Meta-analysis

Meta-analysis has been undertaken to systematically assess the findings of previous research. For example, Peers and Johnston (1994) investigated the relationship between A-Levels and degree performance based on 20 studies over a 40-year period. Effect sizes were computed based on univariate analysis, and of the 60 independent correlations presented, 46 were statistically significant. Overall, results show the relationship between A-Level attainment and degree performance to be small but significant, to be stronger for university than polytechnic, and to differ according to academic discipline studied. A-Levels were the weakest predictors of social science subjects, with stronger predictions for arts and languages. In accordance with previous findings, they found the best predictors to be science courses. The authors suggest that looking at other non-qualification factors is important.

2.3.1.4 Alternative data analysis

One recurring theme in the literature is criticism of the data analysis, which most commonly involves correlation and regression. Several researchers use alternative approaches to address this. Smithers and Robinson (1989) argued that the correlation coefficient cannot be strictly applied to ordinal data across restricted and unequal data sets. They set out the proportions of graduates obtaining different degree classes into three groups: low, medium, and high A-Level results, and demonstrated a strong association between entry qualifications and degree classification that was hidden by the correlation coefficient statistics. This approach was refined by HEFCE in its analysis of the results of the 1997/98 university entrants at English universities. The report found that “A-Level grades, as summarised by A-Level points, were the single most important factor in determining the expected HE achievement” (HEFCE 2003:3). For similar reasons Bekhradnia and Thompson (2002), also of HEFCE, addressed their analysis of HESA data

differently. By expressing the predictive power of A-Levels in terms of the chance of picking the graduate with the better degree they demonstrated that if you randomly select two graduates, the one with 24 points (based on pre-2000 UCAS tariff) was 2.3 times more likely to have a better degree than the one with 18; the probability ratio varying linearly with the extent of the differences in point scores. The weight of the evidence from HEFCE has been sufficient to convince the Higher Education Review (Schwartz 2004:5) that A-Levels remain the best single indicator of success at undergraduate level. Despite using different data analysis techniques, these results support the findings of those studies that analysed their data using correlation and regression analysis and found entry qualifications to be important predictors of degree outcome.

2.3.2 Alternative entry qualifications

Literature investigating alternative entry qualifications to A-Levels as predictors of degree attainment is limited. There are several reasons for this including 1) that much of the research has been at pre-1992 universities who accept mainly A-Level students, and 2) that older research predates the increased range of entry qualifications. However, there has been a growing interest in recent years, most evident within post-1992 universities where the numbers of students entering university with non-traditional qualifications is highest.

Using HESA data from graduates who started their course in 2010/11, Gill and Rodeiro (2014) investigated how a range of qualifications (Cambridge Pre-U, IB, Extended Project and BTEC) predicted degree success. Multilevel regression analysis indicated that attainment in all of the qualifications was a good predictor of degree outcome. However, the BTEC cohort was identified as weaker in terms of degree performance and had the lowest correlation with degree class. Gender, prior educational institution, and socio-economic status where all controlled for during the regression analysis but prior academic attainment such as GCSE results were not considered. However, considering the results of the previously reviewed study by Huws, Reddy, and Talcott (2006) which found a lower predictive ability of A-Levels compared to GCSE grades, GCSE grade consideration in the study may have been beneficial. Gill's 2016 study used a statistical model to predict the possibility of achieving a particular degree class based on UCAS tariff, stating that this should be a positive relationship. By including in the model an indicator for entry qualification, it was possible to determine whether students with a particular qualification had a higher probability of a 'good'

degree (2.1 or first) for the same tariff. Furthermore, it was also possible to calculate equivalent tariffs for different qualifications. After accounting for the institution attended, degree subject and several other student background characteristics such as gender, socio-economic classification and school type, their results indicated that the UCAS tariff slightly overvalues IBs in terms of a students' probability of obtaining a 'good' degree compared to A-Levels. In the comparison of A-Levels and BTECs there was a much larger difference, with the BTEC tariff being highly over-valued. According to the model, a tariff of 360 points for a BTEC Diploma was equivalent to a tariff of 200 from A-Levels. It was suggested by the authors that some other method of calculating equivalent point scores might be advisable, such as a statistical model run on data from prior years, but this would take time to gather sufficient data. They also suggest that experienced admissions tutors may be able to adjust offers accordingly for different qualifications based upon their perceptions of worth. However, this would not work for new qualifications or inexperienced admissions tutors and could also give rise to inequality and bias.

Researchers have also investigated the differences between qualifications both at National level and subject level within a university, including another study by Gill (2018). The purpose of the study was to compare students taking different qualifications in terms of their probability of achieving a 'good' degree classification. It used HESA data as well as data from the National Pupil Database (NPD), only included records of students in England, and was limited to students due to finish their degree in 2013. Logistic regression analysis, considering prior attainment and other background variables (e.g. gender, socio-economic status, school type), showed that those who took an IB, Extended Project, or Cambridge Pre-U where most likely to achieve a 'good' degree, with BTEC and OCR National students the least likely. A-Level students were more likely to achieve a 'good' degree compared to BTEC and other vocational qualifications.

Rouncefield-Swales (2014) also analysed HESA data (2010-2013) and identified BTEC students as being weaker in terms of degree results in comparison to traditional students (A-Levels, Scottish Highers). The data showing that BTEC students achieved fewer 'good' degrees (1st and 2.1) but more 2.2s. However, a weakness of this study is that it only explored data trends. Higher Education Funding Council for England data (HEFCE 2018) shows that even those students who get high BTEC results when they enter university tend to achieve degree outcomes on a par with those students

who obtained mid to low A-Level grades; students with the highest mark of D*D*D* achieving first and 2.1 awards at a level that compares to those achieving CCC at A-Level. A similar pattern is seen for first class awards. Data analysed as part of the HEFCE funded *Transforming Transitions* project (Banerjee 2019:50) in the subject areas of Business, Computer Science, and Sport and Exercise Science showed that the highest proportion of those that failed the first year of their degree had studied only BTECs. However, despite the progression from first to second year of degree study being lower for BTEC students compared to A-Level students, the vast majority of BTEC students do succeed, and are particularly more successful in Sport and Exercise Science. Regardless of qualification type, most students were awarded a 2.1. However, few students with BTECs were awarded 'good' degrees, with the next highest subcategory after a 2.1 for BTEC students being a 2.2.

A strength of the *Transforming Transitions* project was that it sought to understand the nature of the gap in entry and progression, with interviews and focus groups being used to investigate student and tutor insights into the reasons for that gap. However, it was very difficult to determine any findings in this study which related only to students with a BTEC qualification, which makes determination of the reasons behind the differential attainment between BTEC and A-Level students challenging (Banerjee and Myhill 2019). However, another important finding from this study was that most BTEC students qualified for one or more of the criteria used to indicate deprivation. This again strengthens the case that other factors in addition to entry qualifications impact degree outcomes of students. Furthermore, to lay the blame on the BTEC qualifications themselves might be to misrecognise the problem as being about the actual qualification rather than social class, classed-choices, and the social and cultural capital advantages of the middle classes. I will return to this in the discussion of Bourdieu's ideas.

Other researchers have also investigated the differences between qualifications in several other subjects at post-1992 universities: including Murphy (2009) with education studies, Huws and Taylor (2008) with equine and animal studies, Hatt and Baxter (2003) with social sciences, Brimble (2015) with pre-registration nursing, and Huntley et al. (2017) with sports development. Murphy (2009) found weak significant correlations between entry qualifications and degree performance, concluding that progress and achievement was unrelated to the type or grade of entry qualification. A strength of this study is that it obtained qualitative data via focus groups

which provides the basis for understanding the statistical findings in this study. From this, Murphy was able to suggest factors in addition to entry qualifications to account for this variation, including individual and institutional factors that promote or inhibit progression and achievement.

Brimble (2015) compared the performance of nursing students with the same UCAS tariff who had entered the course with A-Levels, BTEC or Access course and found no significant differences in attainment between A-Level and BTEC students, with Access students having the lowest attainment. Similar findings in terms of degree outcomes were observed in the study by Huntley (2017) on Sports Development students, but data was limited in this study as only one graduate cohort was analysed. Conversely, the results of several others found differences in the degree performance of those entering with alternative entry qualifications, with A-Level students performing better those with an IB (Huws and Taylor 2008) and BTEC (Hatt and Baxter 2003; Huws and Taylor 2008), although Access and franchise students performed better (Hatt and Baxter 2003). Qualitative data from interviews and questionnaires with staff and students strengthened the study by Hatt and Baxter (2003), allowing suggestions for the poor performance of IB and BTEC students. They suggested the skills, expectations, and experiences that these students bring into HE is different from the traditional A–level entrant, for example their familiarity with different forms of assessment. Furthermore, Huws and Taylor (2008) found that in both BTEC and A-Level groups GCSEs predicted degree attainment, but UCAS tariff points only predicted degree attainment for the A-Level group, therefore suggesting that the tariff points for A-Levels and those awarded for the BTEC lack equivalence. This was also suggested in the study by McCoy and Adamson (2016) who tracked the learning journey of a cohort of students from two vocationally orientated degree courses at a post-1992 university over 5 years. On both courses, vocational students entered with a higher UCAS points total and interview score compared to A-Level students. However, despite this greater potential, vocational students had lower progression, grades, and completion rates, and were awarded less ‘good’ degrees.

2.3.3 Student characteristics that may influence degree attainment

A-Levels and other entry qualifications only explain a relatively small part of a student’s degree attainment so there must be additional factors at play. Yet university admissions in the UK currently focus almost entirely on the

student's prior academic attainment, often without giving any consideration to the context in which this was achieved (Bridger, Shaw, and Moore 2012; HEFCE 2014). The use of contextual data in UK HEI admissions is promoted as part of the WP agenda (Universities UK 2003). Thiele et al. (2016) have suggested that the use of contextual data within admissions processes could also help to identify students who may require additional academic support. This needs to be supported by robust evidence of the impact of students' background characteristics on attainment within HE, for example gender, ethnicity, and social class.

2.3.3.1 Gender

Gender is strongly associated with admission to, and success at, university. Approximately 40% of university intake in 1979 was female (Smithers and Robinson 1989). In 2018/19 females comprise 64% of undergraduates (HESA 2020).

Previous data presented by Woodley (1984) and Rudd (1984) has suggested there was little difference in the proportions of 'good' degrees awarded to men and women in the 1970s and 1980s. This was also demonstrated in the 1990s in the study on physiotherapy students by Morris and Farmer (1999) and that conducted by Hoskins and Newstead (1997) on a range of degree courses at Plymouth University. However, more recent research suggests that this may now not be the case and that females are more likely to outperform males. For example, Woodfield (2014) analysed HESA data relating to undergraduates taking a degree in a single, identifiable discipline (n=1,631,468). Overall, 67% of women achieved a 'good' degree compared to 62% of men in 27 out of the 30 disciplines investigated; the exceptions being Built Environment, Philosophy and Religious Studies, and Social Work and Policy. Female students were also more likely to obtain a 'good' degree in the large-scale study by Gill (2018), as well as the small-scale study on sports development students carried out by Huntley et al. (2017), whereby females outperformed males from level 5 onwards, including final grade point average (GPA) in their degree and were also more likely to achieve a First. While the apparent educational success of women is reflected in the fact that females now outperform males in terms of 'good' degrees obtained (Smith & Naylor 2001; McNabb et al. 2002; Richardson 2003), a 'gender gap' appears to persist around the first-class award. Most of the research has reported on data from Oxbridge, where the first -class gender gap is particularly evident (Goodhart 1995; Leman 2004). However, this has also been demonstrated at other UK universities (Rudd 1984; Lynn 1996) and on

analysis of data from national sources (Smith and Naylor 2001). McNabb et al. (2002:481) state that on average, around 50% more men achieve first-class degrees compared to women, and at some universities this difference is much higher. However, in 2001 it was reported that nationally female students were awarded a greater absolute number of firsts than men for the first time, causing some commentators to suggest that the gender gap seemed to be disappearing (Pirie 2001; Richardson and Woodley 2003). The persistence of proportionate female under-representation within this degree classification continues to be deliberated.

Reasons for gender differences in attainment have been hypothesised and include underlying cognitive differences (Goodhart 1995). There could also be differences in respect of broad gender-differentiated dispositions. For example, males may have a greater willingness to take risks in relation to their assessments. They may also experience lower levels of anxiety about assessment which has predisposed them to achieve more firsts (Pirie 2001). Conversely, others have suggested that female students' greater levels of cautiousness or conscientiousness (Leman 1999; Pirie 2001) predisposes them to get more 'good' degrees overall.

Although some researchers assume broad gender differences in ability or disposition as part of their argument, some have placed primary analytical emphasis on the academic subject studied when attempting to understand the gender gap. For example, it has been argued that male students achieve more firsts than females because of what has been called a 'compositional effect' (McNabb et al. 2002), whereby they are quantitatively dominant in subjects that award more top degrees (Richardson and Woodley 2003; Smith and Naylor 2001). This was the suggestion by Woodfield and Earl-Novell (2006) who analysed data from students graduating between 1995 and 2003. They concluded that much of the gender gap in their study could be explained with reference to the male propensity to take degrees in disciplines inclined to award a significant number of first-class awards such as the physical sciences, maths, and engineering. Women tend to take degrees in the arts, humanities, and social sciences, where fewer first are awarded (McCrum 1994; Richardson and Woodley 2003).

2.3.3.2 Ethnicity

There has been a continued increase in the proportion of UK-domiciled Black and Minority Ethnic (BME)[2] students over the last 5 years. In 2014/15, 21% of students were Black, Asian, or Other (including mixed) with an increase to 24% in 2018/19; this has happened against a reduction of 3% from 78% to 75% in white students (HESA 2020). Although there are variations within the heterogeneous 'non-white' ethnic groups, when aggregated these are 'over-represented' in British universities compared to white students (Hoare and Johnston 2011), particularly in post-1992 institutions (Connor et al. 2004). However, in recent years there has been an increase in entry of BME students to higher status universities (Russell Group 2013). Furthermore, BME students are more likely to enter HE with vocational qualifications than other students (Bhattacharyya, Ison, and Blair 2003).

Whilst variations exist regarding the ethnic groups that perform less well, white students have been found to perform significantly better than non-white students, even after controlling for a variety of factors (Broecke and Nicholls 2006; Richardson 2008). Connor et al. (1996) surveyed graduates from 4 UK HEI in 1993 and found that 65% of white students obtained 'good' degrees compared to only 39% of non-white students. This pattern of attainment has been further demonstrated in analysis of UK-domiciled graduates from all UK HEI in the study by Broecke and Nicholls (2006). They concluded that much of the attainment gap can be explained by factors other than ethnicity (e.g. gender, prior attainment, disability, deprivation, subject, type of HEI, term-time accommodation, and age). However, even when these are controlled for, coming from a minority ethnic community was still found to have a statistically significant negative effect on degree attainment (Broecke and Nicholls 2006). HEFCE's analysis of degree outcomes of UK graduates from English HEI in 2013/14 found that the proportion of white graduates who achieved a 'good' degree is 76% compared to 60% for BME graduates (HEFCE 2015). This supported the findings of their previous report published in 2014 whereby they found that 72% of white students who entered HE with BBB grades obtained a 'good' degree compared to 56% for Asian students and 53% for black students entering with the same grades

[2] 'Black and Minority Ethnic' is an umbrella term to incorporate a range of minority communities who live in the UK and includes people who describe themselves as Black, Asian, Mixed/Multiple Ethnic Groups, or Other; these are categories that reflect the UK census questions on ethnicity (Miller 2016).

(HEFCE 2014). Prior attainment, although a key factor in degree attainment, does not explain the differences between ethnic groups.

Woodfield (2014) also found ethnicity to be related to attainment as overall 70% of white students compared to 52% of BME students achieved a 'good' degree in all but eight of the 32 disciplines studied. Surprisingly, in the study by Richardson (2008), the trend for Asian and black students to be less likely to obtain a 'good' degree was greater at post-1992 universities than at Russell Group universities. This was unexpected as post-1992 universities are often presumed as having greater commitment and support for BME students, but Richardson's study shows that they are less successful in enabling such students to obtain 'good' degrees.

Differences in degree attainment between white and BME students are complex. A report presented to HEFCE by Mountford-Zimdars et al. (2015) explored the causes of differences in student attainment and suggested lower student satisfaction was a possible cause. NSS data from 2013 shows that 86% of UK-domiciled white students were satisfied with their course compared with only 83% of BME respondents. These differences are relatively small and may have only achieved statistical significance because of the large sample size. Furthermore, not all studies have found BME students to be less satisfied. For example, Connor et al. (2004) interviewed students at 29 HEIs and concluded there was no consistent message that any non-white students felt more disadvantaged than white students. Therefore, differences in the HE experiences of white and BME students cannot explain all the differences in their attainment. It is also important not to forget the intersectionality of ethnicity with gender and social class.

2.3.3.3 Social Class

There are several ways in which social class can be recorded and researchers often use different methods depending upon the data available to them. POLAR (Participation of Local Areas) data is often used as an indicator for social class. It measures the extent of previous progression of young people to HE on a small area basis and is linked to postcodes rather than personal characteristics. The analysis of POLAR data suggests that the social class background of students is a factor in their differential outcomes. HEFCE data analysis using POLAR categorisation found that of those students who go to university from areas of low participation (Quintile 1) only 77% gain a degree, compared to 85% for the most advantaged students (Quintile 5) (HEFCE 2013). There is a similar pattern in the attainment of 'good' degrees

with only 45% of the least advantaged gaining a first or upper second-class degree, while 59% of those from the most advantaged quintile did so. A subsequent report by HEFCE in 2014 showed that 77% of those students from the most advantaged areas with ABB at A-Level go on to gain a good degree, whilst this drops to 67% for ABB students from the most disadvantaged areas. Analysis of outcomes for different student groups illustrates some consistent patterns, with the least-advantaged students (those from lower socio-economic groups) having lower attainment and progression even after controlling for other factors such as type of institution (HEFCE 2014). The study by Gill (2018) also showed that students from the higher socio-economic categories were more likely to achieve a 'good' degree.

Although categorical approaches to defining social class such as POLAR, or the Registrar General's classification system which groups populations into classes based on occupation and grouped in terms of skills level (Archer 2003:9), are widely used there are inherent problems with these approaches. For example, changes in job or living in 'non-traditional' households would influence the Registrar General's classification system. For example, men and women having different classed employment which would complicate the determination of a family's class position. As detailed by Archer (2003:11), "competing approaches have argued that social class cannot be reduced to occupation and that class positions are not homogenous or easily quantifiable". Without any definitions of social class research attempting to explore issues around inequality would be difficult, for example issues around WP and attainment in 'working-class' groups. However, adopting a "theoretical position which can engage with, and account for, broad patterns of inequality combined with an analysis of people's lived experiences and identifications" (Archer 2003:19) is possible. Social divisions such as social class, as well as race and gender are understood as meaningful categories and identities by people. However, the boundaries of class are indiscrete and 'fuzzy' and are stratified by both race and gender (Archer 2003:20). Whilst a precise definition of who is, or not, working class difficult, it allows researchers to undertake research looking at inequalities "while not losing sight of the broad patterns of class disadvantage" (Archer 2003:20). Indeed, Archer details how she uses multiple methods to identify potential working-class respondents in her research which include occupation, previous family experience of HE, and fee remission of HE students (Archer 2003:20). Where I make reference to working-class or middle-class within this thesis, whilst I am aware of the

issues of such binary classification of social class myself, it is the terminology used in the studies I have reviewed, and I am just detailing their findings.

As previously discussed, entry to HE in the UK is largely dependent upon prior educational achievement with fewer working-class young people going to university compared to their middle-class peers. Several reasons have been suggested for these differences in attainment, including poverty, family expectations, classed (and raced/gendered) assumptions about ability, cultural capital, parental involvement in schooling, and cultures and practices within educational institutions (Leathwood and Hutchings 2003). It has been demonstrated that this is not just as a result of working-class youngsters doing less well than their middle-class peers, but they also tend to take a different educational route and qualifications. According to Leathwood and Hutchings (2003:137), the routes taken by the working-class students are widely considered to be of a lower status compared to the traditional academic A-Level route and are unlikely to be accepted into prestigious universities. HESA data shows that a higher proportion of BTEC students come from various under-represented populations such as those with low socio-economic status. Nearly one fifth (18.5%) of BTEC students come from neighbourhoods with the lowest university participation rate and more than a third (35.8%) were from lower socio-economic groups. In addition, BTEC students were more likely to come from families without parental experience of HE (42.1%) (Rouncefield-Swales 2014).

As detailed above, particular student characteristics have been shown to be linked to lower attainment in HE. These include being from lower socio-economic class, from a BME background and studying vocational qualifications such as BTECs. It is important to note that just because these characteristics have been correlated with differential attainment does not imply causation. It is also important to understand how different student characteristics intersect to affect experience and attainment.

2.3.4 Considerations of the context and purpose of the research reviewed

The review of research has covered different universities, levels of aggregation, academic disciplines, and years. Consequently, the contextual differences and varied purposes of the research make it difficult to generalise. For example, over the timeframe that the research spans there has been a dramatic change in the educational system in the UK, most significantly in 1992 when former polytechnics became universities. There

have also been changes to entry qualifications, another important factor that may account for the differences in findings between studies. Coe (2007) reported that it has become easier to obtain higher A-Level grades evidenced in his research which illustrated that students were awarded higher grades each year from 1988 to 2006 despite having the same Test of Developed Abilities (TDA) score for the six subjects analysed. Achievement levels increased by an average of two grades in each subject (Biology, English Literature, French, Geography, History) and three and a half grades for Maths. In addition, the reliability of degree results could be questioned in relation to how far the pattern of degree results is a function of a university, subject area or department (Barnett 1988), as well as time. Recent HESA analysis shows that 26% of students who gained an undergraduate degree in 2016/17 achieved a first, compared to 18% in 2012-13 (HESA 2018). There are no sector-wide agreements on what constitutes a first which contrasts with standardised grades at A-Level.

Another important factor to consider is the scale of the research. Scale, and thus the level of aggregation, will affect the data analysis and subsequent interpretation. Therefore, when interpreting the results from small samples, such as those within single subject disciplines, caution is needed. Consequently, it may not be possible to assess external validity and generalise results to a larger population; something several researchers have alluded to in their study limitations. For example, McKay's 2006 study on engineering students indicates that the results are context dependent and states that "if work of this kind it to inform policies in departments, faculties and universities as a whole then analyses of this kind need to be conducted at appropriate levels of aggregation and within settings that are of interest" (McKay 2006:317). This reinforces the need for research to be conducted within my own HEI and within specific subject disciplines. For most practitioner researchers in leadership roles their appropriate level of aggregation is the department or programme, hence the focus of my study. That said, it is important that the many smaller studies can be combined in ways that build bigger understanding of the landscape

The primary aim of most of the studies I have reviewed relates to academic and student characteristics which affect degree performance measured in terms of degree class, with few studies considering those students who do not actually complete their course. Measuring and understanding attrition is difficult. In the review of the literature by Evans (2000:1), it states that "students' persistence and performance are related to their background

characteristics, disposition on entry, goal commitments and experiences after entry – including academic and social integration – as well as to external and institutional factors". Therefore, the academic and social characteristics considered in this literature review may mean some students are more likely to not complete their degree than others. McCoy and Adamson (2016), for example, found that BTEC students were more likely to not complete their course when compared to A-Level students.

As with many of the studies reviewed, the proposed study will focus on the academic and social factors that influence degree attainment in terms of degree class but will include a fail category for those who did not obtain a degree outcome at the end of their studies. It will not, however, include those students that left the course for reasons other than academic failure (withdrew from course, transferred to another course).

2.3.5 Summary

Some studies have found significant, but weak, relationships between entry qualifications and degree attainment, and other studies have found nothing. A-Levels, and other entry-qualifications, are at best modest predictors of degree performance. This may be stronger for sciences compared to other subjects such as arts and social sciences. Differences in the academic discipline studied, scale, context and purpose of the research make it difficult to draw conclusions, particularly as there has been limited research undertaken in post-1992 HEI and on Sport and Exercise Science.

In comparison to the studies on traditional A-Levels, less research has considered non-traditional qualifications such as BTECs. More recent studies have started to consider BTECs due to the significant proportions of students with BTECs on some courses, particularly in post-1992 HEIs. This research suggests that BTECs may be overvalued in terms of UCAS tariff and that students with BTECs perform less well than the traditional A-Level student and are less likely to obtain a 'good' degree. The factors affecting degree outcomes are multiple and complex. Consequently, many researchers have investigated additional and/or alternative factors to entry qualifications that may affect degree attainment such as gender, ethnicity, and social class.

Much of the research reviewed has been focused on quantitative data analysis which has facilitated the identification of several student characteristics that may influence degree attainment. Existing studies

provide little insight into a student's life and understanding the causes of differential attainment. My research seeks to address this gap.

2.4 Research questions

As evidenced in the literature review, much of the research in this area has been focused on quantitative data analysis which has facilitated the identification of several student characteristics that may influence degree attainment. However, most of the studies provide little insight into a student's life and understanding the causes of differential attainment as few studies in this area have obtained qualitative data. This study will therefore go further than merely looking at input-output patterns to try and understand the reasons behind these. To do so it will utilise some of the ideas of Pierre Bourdieu to provide a conceptual and empirical understanding of how a range of factors influence degree attainment in Sport and Exercise Science at a post-1992 university.

The overarching research question is as follows:

- In what ways do academic and social factors predict degree attainment in BSc Sport and Exercise Science at a post-1992 university and how can this be explained?

This is supported by three sub-questions:

- What is the association between prior educational attainment in Level 3 qualifications and degree attainment?
- Can differences in degree attainment be explained by the type of Level 3 qualification studied?
- Can differences in degree attainment be explained by other student demographics such as gender, ethnicity, and socio-economic class?

The methodology used to answer these questions will be detailed in Chapter 4. However, the theoretical framework used within this study will be presented in Chapter 3.

3 Theoretical Framework

3.1 Introduction

The literature review showed that causes of inequality in degree attainment are complex and not fully understood. Different theoretical models have been used by researchers to explain these attainment differences, but I have decided to use Bourdieu's conceptual framework within the present study. Bourdieu's theory of practice provides useful tools for understanding the transition experiences of Sport and Exercise Science students moving into higher education (HE) and may help explain any disparities in attainment. This chapter begins with an overview of Bourdieu's theory of practice and the key concepts of capital, habitus, and field. I will then consider how Bourdieu's theory of practice has previously been used in educational research and outline how it will be useful for understanding inequalities in degree outcomes in the present study.

3.2 Bourdieu's theory of practice

Bourdieu's theory of practice is concerned with how social structures and human agency interact to generate social behaviour and reproduce social structure. It has been widely applied by sociologists of education and is one of the most prominent attempts to explain the intergenerational persistence of social inequality.

According to Dumais (2002:45), cultural capital has become the most popular of Bourdieu's concepts and has been thoroughly examined by sociologists of education. However, Dumais (2002) suggests that the use of capital alone, without using habitus, can leave Bourdieu's theoretical framework incomplete in its practical application. It is important to consider one's resources (*capital*), the orientation one has to use those resources (*habitus*) and the nature of the *field* in which practices reproduce advantage and disadvantage.

3.2.1 Capital

Bourdieu identified several capitals that are at stake within fields, including economic (wealth, either inherited or generated from interactions between the individual and the economy), social (generated through social processes between family and wider society and is made up of social networks), symbolic (individual prestige and personal qualities such as authority and

charisma) and cultural (which encompasses a broad array of linguistic competencies, manners, preferences, and orientations) (Bourdieu 1977; Bourdieu 1985).

Cultural capital can exist in three forms: 1) objectified, which refers to objects that require special cultural abilities to appreciate (e.g. art); 2) institutionalised, which refers to educational credentials and qualifications; and 3) embodied, which is the disposition to appreciate and understand cultural goods (Bourdieu 1984). It has been suggested that institutionalised cultural capital develops as a result of having embodied cultural capital and successfully converting it via the education system (Dumais 2002). Accumulation of embodied cultural capital, which begins in early childhood within the family, is required to use objectified cultural capital appropriately. It requires pedagogical action, time investment from parents, family members or hired professionals to sensitise a child to cultural interactions. Bourdieu argues that academic success is related to the amount and type of cultural capital inherited from the family milieu, rather than to measures of individual talent, intelligence, or achievement (Bourdieu 1986). He explained how one form of capital is transformed into another. For example, economic capital can be converted into cultural capital by buying an elite education, or through private tutoring, music lessons and so on. Additionally, different social classes have different forms and volumes of various capitals (Bourdieu 1993). Individuals sharing a common social space can have different ratios of cultural to economic capital due to the complex relationships between class and individual routes. Bourdieu uses a roulette metaphor to describe how individuals engage in games of exchanging different forms of capital:

> Those with lots of red tokens and a few yellow tokens, that is lots of economic capital and a little cultural capital will not play in the same was as those with many yellow tokens and a few red ones …the more yellow tokens (cultural capital) they have, the more they will stake on the yellow squares (the educational system) (Bourdieu 1993:34)

Concepts of cultural capital and academic success will be shown to be closely related in the present study and therefore will be explored further later in this chapter.

Formatting…Bourdieu has previously recognized the importance of sport and body management practices with respect to the accumulation and display of cultural capital and has described sport as one of several mundane activities which reflect, in just the same way as would engagement with the arts, holdings of economic and cultural capital and thus help to constitute

symbolically distinguished lifestyles (Bourdieu 1984). Due to the degree being investigated in the present study and the students' interest and involvement in sport, the idea that sport and other physical activities operate as cultural capital will be utilised within the present study when looking at students' backgrounds and their accumulation of cultural capital during their childhood.

3.2.2 Habitus

A central concept of Bourdieu's conceptual framework is habitus. Habitus comprises socially ingrained habits, skills and dispositions and it is the way that individuals perceive the social world around them and responds to it. Bourdieu (1990:52) refers to habitus as "the system of structured, structuring dispositions" which is "constituted in practice and is always orientated towards practical functions". These dispositions are usually shared by people with similar backgrounds, such as social class, ethnicity, education, and profession, for example. One of the important features of habitus that it is embodied and can be expressed through durable ways "of standing, speaking, walking and thereby of feeling and thinking" (Bourdieu 1990:70). Glanville, Green and Hannan (2007:2) describe habitus as:

> Socially acquired, embodied systems of dispositions and/or pre-dispositions, the combination in each person of the previous biography, their sense of identity/ identities, their lifestyle, personality, class and cultural background, and their beliefs, attitudes and values.

Bourdieu explains that the habitus generates many possible actions:

> Habitus is a kind of transforming machine that leads us to 'reproduce' the social conditions of our own production, but in a relatively unpredictable way, in such a way that one cannot move simply and mechanically from knowledge of the conditions of production of knowledge of the products (Bourdieu 1993:87).

However, whilst individual agency is assumed to be part of habitus, individuals are probabilistically predisposed to act in ways associated with a particular class origin. Bourdieu describes habitus as:

> Systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of operations necessary in order to attain them (Bourdieu 1990:53)

Bourdieu has also suggested that habitus will regularly exclude certain practices if they are unfamiliar to the cultural groupings an individual belongs. According to Dumais (2002:23), habitus is generated by internalising the social structure and one's place in it. It comes to determine what is possible and not possible for one's life; therefore, aspirations and practices are developed accordingly. Bourdieu's theory explains how the reproduction of social structure results from the enactments of individuals' habituses, which themselves were the product of social backgrounds: 'structured structures' and 'structuring structures'.

Bourdieu's notion of habitus is a complex interplay between an individual's past and present: "The habitus – embodied history, internalised as a second nature and so forgotten history – is the active presence of the whole past of which it is the product" (Bourdieu 1990:56). Consequently, it gives practices their relative autonomy with respect to their current environment as the habitus "is a spontaneity without conscious or will" (Bourdieu, 1990:56). Despite Bourdieu strongly linking habitus to a persons' individual history, being a product of childhood experience and the family, the current circumstances they find themselves in, such as student transition into university as in the present study, will also become internalised and add to their earlier socialisations:

> The habitus acquired in the family is at the basis of the structuring of school experiences...the habitus transformed by the action of the school, itself diversified, is in turn at the basis of all subsequent experiences...and so on, from restructuring to restructuring (Bourdieu 1972 cited in Bourdieu and Wacquant 1992).

Habitus is therefore fluid and is modified as an individual has new experiences:

> The habitus which, as every moment, structures new experiences in accordance with the structures produced by past experiences, which are modified by the new experiences within the limits defined by their power of section, brings about a unique integration, dominated by the earliest experiences, of the experiences statistically common to members of the same class (Bourdieu 1990:60).

The relationship between habitus and the action within a particular field is not one directional. There is a dialectical relationship between habitus and field, each producing the other. Therefore, understanding a students' history, including family background and schooling in the qualitative aspect of this study is key to understanding their transition into the university field, which will be a new and unfamiliar field. The idea of 'transposable

dispositions' will be explored in relation to the transfer of a students' habitus from school to university, and the relationship between sporting participation and its influence on learning.

3.2.3 Field

The concept of field is core to Bourdieu's theory of practice:

> fields present themselves synchronically as structured spaces of positions (or posts) whose properties depend on their position within these spaces and which can be analysed independently of the characteristics of their occupants (which are partly determined by them) (Bourdieu 1993:72).

Edgerton and Roberts (2014:195) state that "the term field refers to the formal and informal norms governing a particular social sphere of activity (e.g. family, public school, HE, art, politics, and economics)". They explain that fields are organised around specific forms or combinations of capital and have their own regulative principles or 'rules of the game'. Additionally, individuals' practices or actions within a particular field derive from the interrelation of their habitus and the capital they can mobilize in that field (Edgerton and Roberts 2014). The concept of field thereby gives habitus a 'dynamic quality' producing a powerful synergy in which:

> … social reality exists, so to speak, twice, in things and in minds, in fields and in habitus, outside and inside social agents. And when habitus encounters a social world of which it is the product, it is like a 'fish in water': it does not feel the weight of the water and it takes the world about itself for granted (Bourdieu and Wacquant 1992:127).

Bourdieu often used the football field as a metaphor for his field theory. Each player on the field has a position and a set of rules (doxa) to adhere to, and each position within the field is determined by the player's individual habitus. When the players habitus matches the social setting (field), and they play by the rules of the game, everything runs smoothly. However, if a rugby player found his way onto a football pitch, he would be unfamiliar with the field and his habitus would not match – and he could be referred to as a 'fish out of water'. Reay and colleagues suggest that when a habitus encounters a field with which it is not familiar the result could be a change or transformation or could lead to disquiet, ambivalence, insecurity, and uncertainty (Reay, David and Ball 2005:28). However, a key idea of Bourdieu is that the 'rules of the game' in middle class families give you an advantage in education – a game invented by the middle classes - as one

can transpose judgement or action in one field to another, the habitus being "systems of durable, transposable dispositions" (Bourdieu 1990:53).

3.3 Bourdieu and educational inequality

Bourdieu's concepts of habitus, capital and field are often utilised to explain educational inequality. 'Life as a game' is often used to explain this inequality; capital representing the resources that someone has at their disposal that are valued in the game, habitus representing an individual's disposition or their 'feel for the game', and field representing the social world within which a player plays a particular game. As I am using Bourdieu within a HE context, students could be seen as a set of actors whose goal in the game is to meet academic standards to reach the next level of the game (pass module, level, and degree). To achieve success, students must use the capital they have received from their families, communities, and prior experiences. Bourdieu has suggested that there are winners and losers in the game resulting from inequalities in capital and the resulting differences in the habitus affecting academic outcomes.

Bourdieu's theory of cultural reproduction suggests that a lack of familiarity with the dominant culture and thus absence of the dispositions that typically come from such familiarity (habitus) serves as a barrier for upward mobility of children from low socio-economic backgrounds (Gaddis 2013). The education system demands particular (middle class) forms of capital thereby making it difficult for students from the lower classes to succeed:

> By doing away with giving explicitly to everyone what it implicitly demands of everyone, the educational system demands of everyone alike that they have what it does not give. This consists mainly of linguistic and cultural competence and that relationship of familiarity with culture which can only be produced by family upbringing when it transmits the dominant culture (Bourdieu 1977:494).

Thus, schools reproduce inequalities based on socio-economic status because teachers reward displays of dominant culture and those rewards translate into higher levels of educational attainment (Gaddis 2013). This means that the educational system has a key role in reproducing the status quo.

> ...it [education] is in fact one of the most effective means of perpetuating the existing social pattern, as it both provides an apparent justification for social inequalities and gives recognition to the cultural heritage, that is, to a social gift treated as a natural one (Bourdieu 1974:32).

Middle-class parents instil a sense of entitlement in their children, often tacitly, that helps them to navigate the education system. The same principles apply to HE students.

Researchers have applied Bourdieu's ideas in various areas of HE, including access (Webber 2014), choice (Reay 1998), student experiences (Reay, Crozier and Clayton 2009), transition (Leese 2010) and retention (Leese 2010; Longden 2004). For example, Reay and colleagues utilised the concepts of habitus and cultural capital to understand decisions about HE choice (Reay, David, and Ball 2005). They suggest that working-class and middle-class families have differential access to various forms of cultural, social, and economic capital which differentially frame the educational choices that different families and students can and will make. The influence of family habitus has been discussed, that is "the deeply ingrained system of perspectives, experiences and predispositions family members share" (Reay 1998:527). Therefore, family habitus results in a tendency for young people to acquire expectations which are adjusted to what is acceptable 'for people like us' (Bourdieu 1990:64-65). As a result, in middle-class families there is often the assumption or expectation of going to university that does not need to be articulated. Middle-class young people tend to engage with HE choice in the context of certainty within a family habitus that seems to generate 'the pursuit of advantage' (Reay 1998:526). In contrast, the family habitus of working-class young people was characterized by 'uncertainties and flux' in terms of HE choice, with greater risks and constraints framing their decisions. In addition, the lack of familial resources means that students are more autonomous in their choice-making process (Reay 1998:526). Differences in class also influence which universities students apply to. Students stress the importance of 'fitting-in' meaning that many working-class students get dissuaded from applying to more prestigious universities and are more likely to apply to post-1992 HEIs to increase their chances of 'belonging' (Reay 1998), this pattern of application being explained in Chapter 1. The intersection of race and social class have also been investigated in relation to HE choice. The study by Ball, Reay and David (2001:1) found that the "processes, concerns, resources and outcomes of choosing differ among the minority ethnic students in relation to social class" and "class differences are more apparent and significant than ethnic similarities".

Webber (2014) examined the interview procedure used for admission to a foundation degree using Bourdieu's concept of capital. Three student cases

highlighted the capital and dispositions they brought to the course. Webber shows how the decision-making during interviews was unconsciously biased. She recognised cultural capital as "skills, abilities, mannerisms and knowledge of educational systems as habitual ways of behaving that can give advantages to those fitting into the habitus of university life" (Webber 2014:93). Fitting into university life would also be made easier through the possession of social capital, with social contacts being useful in understanding the HE milieu. Those with greater economic resources would perhaps increase their chances of success at university as this can impact on their educational resources, which in turn affects educational achievement (Webber 2014:93). Webber also details how capitals get 'traded' in order to demonstrate the potential to be successful within the HE field. The findings of the study illustrated that many variables impacted on a students' ability to be accepted and be successful on the course and "there is no clear recipe for success" (Webber 2014:102). Webber's participants differed from traditional A-Level students and positioned themselves differently within HE, frequently not feeling 'good enough.' She argued that maybe the HEI is at fault when non-traditional students are unsuccessful as they unrealistically expect students to have all the skills they need right away. HEIs need to ensure they provide adequate and ongoing support for non-traditional students to enable them to 'bridge the academic gap' (Webber 2014:103).

Reay, Crozier and Clayton (2009) investigated 9 working-class students' experiences at an elite university. Although academically successful, these students were lacking in the required forms of cultural capital when faced with the unfamiliar field of HE. This has a significant impact on the structuring of their dispositions throughout their degree studies; in other words, their habitus continued to be "restructured and transformed in its makeup by the pressure of the objective structures" (Bourdieu 2005:47). The middle-class student's habitus seemed to resonate better with the HE field. However, with their combination of highly developed academic dispositions and reflexive habituses, the working-class students generated opportunities and academic success (Reay, Crozier, and Clayton 2009). The concept of institutional habitus, that is the organisational culture and ethos, was also employed in the study by Reay and colleagues to enable them to understand this complex relationship between their cultural group or social class on an individual's behaviour as it mediated through the organisation (elite university). They detailed how the institutional habitus of the university is more inflexible in terms of change compared to that of the individual students, particularly at a long-established traditional university. Reay and

colleagues cite the lack of institutional fluidity as one of the possible reasons for non-traditional students' choice of lower tariff HEI. This was further detailed in their 2010 study which investigated the experiences of 27 working class students across 4 different UK HEI (Reay, Crozier, and Clayton 2010). They explored how the institutional habitus of each HEI impacted on individual learner identities and highlighted the power of each of the HEI institutional habitus, each with its own culture and ethos linked to the wider socio-economic and educational cultures of the university. The type of HEI working class students attend exerts a strong influence on how they see themselves and are seen by others in terms of their learner and class identity (Reay, Crozier, and Clayton 2010). Similarly, Read, Archer and Leathwood (2003) investigated students' conceptions of 'belongingness' and 'isolation' at a post-1992 university with a statistically high proportion of non-traditional students in terms of class, maturity and ethnicity. However, for many, even the choice of a post-1992 university did not enable them to 'fully belong' in the environment of academia. Read and colleagues conclude that even in HEIs with a high proportion of 'non-traditional' students, the culture of HE in many ways still "reflects the dominant discourse of the student as young, white, middle-class male" (Read, Archer, and Leathwood 2003:27). The prevailing academic culture across HEI (not just the elite) still reinforces feelings of 'alienation rather than belonging' (Read, Archer, and Leathwood 2003:28) despite the changing make-up of the student population.

According to Bourdieu's sociology, educational institutions perpetuate existing social hierarchies, and this includes post-16 providers as well as HEI as discussed above. Sixth form and FE colleges are both located in the field of post-16 education but are positioned differently and as a result may prepare students in different ways for the field of HE. This could, for example, influence 'learner identity' and the habitus of the student and their attitudes towards learning, confidence, and entitlement in relation to academic knowledge (Reay, Crozier, and Clayton 2010).

Gartland and Smith (2018) used Bourdieu's ideas to investigate the college experiences of BTEC students prior to entering university from differently positioned post-16 colleges in England. A strength of this study is that both post-16 providers are from an area of multiple deprivation and low HE participation and therefore controls for this factor. Students' accounts, whilst positive about their experiences, suggest that the hierarchical positioning of colleges and their access to these institutions affect their self-perception, learner identity and shape their individual habitus. FE colleges had a

perceived lower status than 6th forms by all students regardless of which post-16 institution they went to, with A-Levels being see as academic qualifications for 'smart' students by those undertaking BTECs. Gartland and Smith (2018), suggest that the process of applying to and progressing from differently positioned colleges within a stratified system can reinforce the learner identities of young people or undermine and even damage them. This could result in A-Level students having a more positive learner identity than BTEC students. Gartland and Smith (2018) identified different practices between the FE and 6th form colleges in terms of progression to university. The FE college had more links to industry and less students progressing to HE, and those moving to university reported having little support from their college. However, the 6th form college supported transition to HE as a central aim and instigated interest even in those students who had not intended to go to university, with 9 out of 12 BTEC students interviewed at the 6th form going away to study at university. According to Gartland and Smith (2018:642), these findings indicate that differently positioned colleges in the field of post-16 field affect students 'learner identities' and their perception of 'possible selves' as HE students. Furthermore, Gartland and Smith (2018:639) suggest that:

> The collective habitus of staff and the history and reputation of institutions contributes to the cultural capital young people generate during their time at colleges and universities, and this interacts with and informs their individual habitus.

The habitus of the college shapes its students' habituses and their 'parameters of possibilities' (Reay, Crozier and Clayton 2010).

The study by Leese (2010) is closer to the aims of the present study. She considered the influence of cultural capital and habitus on student transition into a post-1992 HEI. Due to the WP agenda resulting in students being recruited from a wide range of backgrounds, the research was designed to explore whether the proposed 'new student' experiences in their transition into HE is related to lack of or the wrong kind of cultural capital, leading to disjunction between their home environment and university and resulting feelings of isolation. In addition, a student's habitus could impact their ability to assimilate and make sense of their new university environment. In Leese's opinion, transition into university is a crucial period and the success of this is likely to have an impact on a students' future achievements. Leese recommended that where possible it is necessary to provide compensatory experiences to bring students' cultural capital to an equitable position with other students, and this could be done during the transition period. This was

similar to the recommendations made in the earlier study on retention in HE by Longden (2004), who suggested that if the habitus of underrepresented groups is understood then it is possible to provide compensatory experiences to bring the level of cultural capital closer to those from the dominant groups attending HE. Since acquisition of cultural capital begins in early childhood, it might be unrealistic to expect that this can be achieved during the transition period.

Within the literature that has considered the effects of entry qualifications on degree attainment, including type of qualification, only one study has used Bourdieu, that of McCoy and Adamson (2016). The study, conducted on two vocationally orientated Bachelor of Arts degrees at a post-1992 university, uses the concepts of habitus and 'pedagogic identity' to explore ways in which pedagogic identities are formed and nurtured by experience and environment. This study exposed the differential performance of students in relation to their entry qualifications and found that the students entering with BTECs had significantly lower progression rates and 'good' degrees compared to A-Level students. They used habitus to provide a framework to discuss how different routes into HE, and the differential experiences of the students concerned, become structurally embedded in inequalities of attainment. Their data suggests that achievement is influenced by previous study habitus and students with a BTEC are achieving below their potential most probably because their previous educational experience differs fundamentally from their experience of HE. Although not discussed in any further detail by the authors, this could suggest that the different qualifications and/or different post-16 educational experiences may provide different cultural capital, with that acquired by A-Level students perhaps being more suitable for navigation in the field of HE, and their use of these resources (habitus) may also be better.

Students applying to HE with vocational qualifications are more likely to be from disadvantaged backgrounds (Rouncefield-Swales 2014). The difference in attainment between the students observed in the study by McCoy and Adamson (2016), and other studies I have reviewed that have found BTEC students doing less well than A-Level students, may not necessarily down to the nature of the qualifications themselves but the differences in social class of the two groups. If this is the case, it would suggest that BTEC and A-Level students are likely to have acquired different amounts and types of cultural capital due to their different social backgrounds. Indeed, the possession of cultural capital has been shown to have a significant effect on

GCSE attainment by Sullivan (2001), although the author acknowledges that is only gives a partial explanation of class differences.

3.4 Bourdieu, gender, and educational inequality

Bourdieu's theory of practice applied to education doesn't pay much attention to issues of gender, but it was important to consider it within this study as it has been shown in Chapter 2 to influence degree attainment. Gender is one of the main stratifying factors in society (Jacobs 1996). Even though males and females may have the same cultural training if they are part of the same social class, their habitus may be different because of their socialisation and the views they form of the opportunities available to them. Indeed, Mickelson (2003) has suggested that habitus is gendered because of the different possibilities that women and men perceive are available to them. For example, the different choices of degree subjects with women less likely to study engineering or the physical sciences than men. However, as previously discussed, female students now outnumber males in HE and overall are more likely to obtain a 'good' degree. Therefore, despite advances for women in recent decades, many structural constraints to women's progress exist, and gender socialisation continues to shape girls' lives (Dumais 2002).

Gender has been suggested to influence the amount and type of cultural capital acquired, resulting in difference in student attainment. In the study by Dumais (2002) on 8th grade students in the US, girls accumulated more cultural capital as determined by participation in different cultural activities. The most popular cultural activity for boys was sports participation, with more boys involved in sport than girls. Habitus (as measured by a students' occupational expectations) was also higher in girls. Differences remained in both cultural capital and habitus even after socio-economic class (SEC) was accounted for. In terms of the effects on the students' grade-point average, the girls had higher results than boys in every SEC group. Further analysis revealed that whilst cultural capital does affect educational outcomes, habitus appeared to be the most important factor influencing grades after ability (Dumais 2002). This does not appear to align with Bourdieu's suggestions that academic success is related to the amount and type of cultural capital inherited from the family milieu, rather than by measures of individual talent, intelligence, or achievement (Bourdieu 1986). One criticism of this study is that it used only one measure of habitus. Although Dumais (2002) points out that the concept of habitus is difficult to operationalise, it was important to include it where

others had not. A study by Sullivan (2001) on English 16-year-olds also found that girls had slightly more cultural capital than boys in terms of both reading habits and engagement in other cultural activities as determined by a survey. Boys, however, slightly outperform girls on a test of cultural knowledge. According to the author, these results did not account for the girls' superior performance at GCSE, but cultural capital overall, as well as parents' cultural capital, was a significant determinant of a pupils GCSE score. However, the study by Sullivan (2001) did not have a measure of habitus. To understand the effect of gender in this study, it will be important to consider how capital and habitus, and any potential gendered differences, influence degree attainment.

3.5 Bourdieu, ethnicity, and educational inequality

In Chapter 2 I set out disparities in degree attainment between white and BME students. As with gender, Bourdieu's theory of practice applied to education doesn't pay much attention to issues of ethnicity but again it was important to consider it within this study as it has been shown in Chapter 2 to influence degree attainment.

Bourdieu does argue that class should be considered as a construct that encompasses individuals who share homogeneous conditions of existence, sets of dispositions and preferences, and can generate similar practices in social settings (Bourdieu 1984). Every aspect of an individual's social condition, including ethnicity, contributes to the development of their habitus and acquisition of capital.

Ethnicity has been shown to influence the HE choice process and student experience. For example, Ball, Reay and David (2002: 353) suggest that students who are the first generation from their family to enter HE who may not possess appropriate cultural capital and relevant social capital, may easily find that they choose the wrong university or course resulting in an increased risk of dropping out. They state that half of the ten UK universities with the highest drop-out rates also have the highest proportions of minority ethnic students. Ethnic mix was one factor amongst a variety of choice criteria students had when considering university choices in the study investigating minority-ethnic students by Ball, Reay and David (2002), with a greater tendency for those students to attend post-1992 universities (Crozier et al. 2008). The experiences of university choice, as demonstrated by several studies by Reay and colleagues, have been shown to be qualitatively different for both working-class and minority ethnic students

compared to their more privileged middle-class counterparts (Ball, Reay, and David 2002; Reay et al. 2001; Reay, David, and Ball 2005). Ethnicity is also one of several socio-cultural factors alongside class, gender and age that, alongside university factors, that may influence the student experience of higher education (Crozier et al. 2008). Crozier et al. (2008) linked the student university experience with "the personal, the familial, social and academic experiences that constitute the students' histories" (175), or what Bourdieu would refer to as 'habitus'. This study focussed on working class student experiences rather than ethnicity although ethnic minority students were participants. The ethnic minority students experience quoted was related to them only studying with 'people like them' and not having a wider circle of peers to learn from. This demonstrates a low volume of social capital and constrained learning experiences (174).

As stated above, Bourdieu's theory of practice applied to education doesn't give much attention to issues of ethnicity, and this includes higher education attainment. Differences in attainment observed may be largely due to social class, as it has been shown that many BME students come from deprived areas, areas of low HE participation, and working-class family backgrounds (Miller 2016:9). However, the study by Roscigno and Ainsworth-Darnell (1999), which utilised data from the National Educational Longitudinal Survey in the US, did attempt to disentangle class and race, but this was in secondary education. They theorised that "cultural capital and education resources may vary by racial group and be important in reproducing contemporary disadvantages in achievement" and "that the reward structure for such attributes may differ by race and class status" (Roscigno and Ainsworth-Darnell 1999:171). Their findings demonstrated that cultural capital (trips and classes attended outside of school) and household educational resources (e.g. computer, encyclopaedia, books, atlas etc.) have a strong and positive effects on grade point averages (GPAs) and educational achievement. In addition, they found that significant racial variations in cultural and educational resources were as a result of family background and social economic status (SES), but these resources only partially explained the racial and social-class gaps in educational achievement. They suggest that both black and low-SES students receive less return for their capital resources compared to their white and higher-SES counterparts. They could partially explain this by the micropolitical evaluative processes used by teachers within schools and classrooms but do acknowledge the inability to disentangle racial-class bias from the evaluation processes teachers often use.

3.6 Summary

Bourdieu's theory of practice provides an explanation into the way that social structures and human agency interact to generate social behaviour and reproduce social structure and has often been used in an attempt to explain the intergenerational persistence of social inequality. Bourdieu's concepts of habitus, capital and field are often utilised to explain educational inequality. 'Life as a game' is often used to explain this inequality; capital representing the resources that someone has at their disposal that are valued in the game, habitus representing an individual's disposition or their 'feel for the game', and field representing the social world within which a player plays a particular game. Bourdieu has suggested that there are winners and losers in the game resulting from inequalities in capital and the resulting differences in the habitus affecting academic outcomes. His theory of cultural reproduction suggests that a lack of familiarity with the dominant culture and thus absence of the proper disposition that typically comes from such familiarity (habitus) serves as a barrier for upward mobility of children from low socio-economic backgrounds (Gaddis 2013). Bourdieu argues that the possession of cultural capital varies with social class, yet the education system assumes the possession of cultural capital and therefore making it difficult for lower class children to succeed in the education system. Bourdieu believed that academic success is related to the amount and type of cultural capital inherited from the family milieu, rather than by individually owned talent or intelligence, and the early development of cultural capital and habitus is strongly framed by the family (Bourdieu 1986). Sport and physical activity contribute to overall cultural and social capital. Furthermore, the sporting activities an individual engages will have shaped, and been shaped by, their habitus. Schooling and post-16 educational providers also add to this process of habitus building and capital acquisition. Research that has been conducted in HE using Bourdieu's key concepts suggest that differences in habitus and cultural capital as a result of class may influence access (Webber 2014), choice (Reay 1998), student experiences (Reay, Crozier and Clayton 2009), transition (Leese 2010), and retention (Leese 2010; Longden 2004). Of relevance to student transition into university, Gartland and Smith (2018) have suggested that 6th form and FE colleges may prepare students in different ways for the field of HE because of their different institutional habituses which may influence the 'learner identity' and habitus of a student. Every aspect of an individual's social condition, including gender and ethnicity, contributes to their class and the development of their habitus and there is likely to be intersectionality between them. These factors are likely

to impact on their educational trajectories including early university experience, although Bourdieu's theory of practice applied to education doesn't give much attention to issues of gender or ethnicity. All of this has clear implications for the design of the qualitative aspects of my study.

4 Methods and methodology

4.1 Introduction

This chapter sets out the research design and methodology that I will employ to answer the research questions as outlined in Chapter 2. I will discuss and justify the methodological choices made, my ontological and epistemological position and reflect on my positionality. This will be followed by an outline of the study design and procedures employed for both the quantitative and qualitative aspects of this study, including population and sampling, data collection and analysis, with consideration of reliability and validity. This chapter will conclude with an outline of the research approval obtained and ethical considerations of the study.

4.2 Methodology

This study employed a mixed methods approach, defined by Johnson and Onwuegbuzie (2004:17) as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study".

On reviewing the literature, it has become apparent that a considerable amount of research is based on quantitative methods to investigate the relationship between academic and social factors on degree attainment, and in particular Level 3 qualifications and degree attainment. This study also has a quantitative aspect to identify statistical relationships between variables. I agree with Barnett (1988) who suggests that these statistical patterns can be revealing and interesting, and prompt further questions about the nature of the results, which they did. However, "the statistics become meaningful when the context which gave rise to them is revealed. Filling out that context, however, may not be a simple task" (Barnett 1988:25). Using quantitative and qualitative methods together can better address both the 'what' and the 'why' aspects of my research questions. The qualitative data will explore the context enabling me to make better sense of the quantitative data (Gray 2014). Mixed methods research integrates both numeric and narrative approaches and data, using quantitative and qualitative methods where relevant, and so is best placed to answer my own research questions (Johnson, Onwuegbuzie, and Turner 2007). Such designs produce fuller, triangulated, analyses of the phenomenon under

study thereby addressing some of the weaknesses and biases of single-method approaches (Denscombe 2008).

According to Johnson et al. (2007), mixed methods research is increasingly recognised as the third major research paradigm. Mixed methods approaches do not affiliate themselves with either quantitative or qualitative methods. Whilst positivist approaches are based on scientific, objectivist ontologies and epistemologies, and interpretive approaches on humanistic and existential ontologies and epistemologies, the mixed methods approaches are premised on pragmatism ontologies and epistemologies (Cohen, Manion, and Morrison 2011). Therefore, mixed method approaches seek to move past the so called 'paradigm wars' by offering a logical and practical alternative (Johnson and Onwuegbuzie 2004:17). Pragmatism argues "that there may be both singular and multiple versions of the truth and reality, sometimes subjective and sometimes objective, sometimes scientific and sometimes humanistic" (Cohen, Manion, and Morrison 2011:23). Such pragmatic approaches to research have been referred to as 'practice-driven' (Denscombe 2008) and are widely acknowledged to be more pertinent to modern research than a single approach (Gray 2014).

Bourdieu's theory of practice will be used as the theoretical framework in the proposed study. Polit and Beck (2004) suggest that such frameworks provide an orderly, efficient scheme for bringing together observations and facts from separate investigations. They can also assist in summarizing and linking findings into an accessible, coherent, and useful structure. They can also guide understanding of phenomena – both the *what* and the *why* of their occurrence and provide a basis for prediction (Polit and Beck, 2004:29). Consequently, it has been suggested by Evans, Coon, and Ume (2011) that such frameworks can help steer the direction of mixed methods studies, consisting of concurrent or sequential investigations (this study being sequential), and facilitate integration of methods in at least one phase of the inquiry, thereby providing a map for combining the *what* with the *why* to gain a multidimensional understanding of causal mechanisms. Indeed, Bourdieu's theoretical framework assisted in the design of this study as well as the subsequent analysis and interpretation of the data collected.

4.3 Researcher positionality

I am currently Deputy Head of the School of Life Science (SLS), a role that I have had for over five years and have been at my current HEI since 1997. With extensive experience as an academic staff member in Sport and

Exercise Science, as well as previous roles as Admissions Tutor, followed by Associate Head responsible for Recruitment for sport science and other Life Sciences courses, I have had valuable insights and background information in the area of admissions and attainment in HE. My knowledge and experience enabled the development of my specific research questions and puts me in a prime position to investigate this area, and if appropriate on completion, suggest evidence-based changes to: admissions policy and procedures to facilitate the admission of students that are likely to be successful; initiate support mechanisms to support students at risk of poor attainment; and inform teaching, learning and assessment strategies within my School. Furthermore, this research could also be beneficial to the wider university and potentially beyond.

According to Trowler (2011), doing research within the HEI where you are employed or studying could be described as 'insider' research. However, 'insiderness' is not a fixed value: you may be researching aspects of the institution previously unknown to you, collecting data from strangers, and what counts as 'inside' also depends on your own identity positioning. The benefits of insider research for my study have been access to data within my own HEI and access to students within my own School. However, Trowler (2011) suggests that there may be conflicts between one's role as a researcher and one's professional role within a HEI, and respondents who know you may have pre-formed expectations of your alignments and preferences in ways which change their responses (a form of the effect called 'interview bias'). This will be further discussed later in the chapter when providing details on the interview sample used in the qualitative aspect of this study. Another advantage of being an insider researcher was during the analysis and interpretation of the data, particularly the qualitative data, and this will be discussed in the qualitative analysis section of this chapter. It is acknowledged that my own personal biography will have also influenced the qualitative aspect of the study. As stated by Creswell (2003:182), "introspection and acknowledgement of biases, values, and interests (or reflexivity) typifies qualitative research". The advantages of this are that it can provide honesty and openness to the research (Creswell 2003). However, the interpretive nature of qualitative research can introduce a range of strategic, ethical, and personal issues which will be identified and discussed throughout this chapter.

4.4 Mixed methods study design and procedure

This study on my own post-1992 HEI using a mixed methods research design had an implementation sequence which was sequential; beginning with the collection and analysis of the quantitative data followed by the collection and analysis of qualitative data (Figure 4.1). The quantitative data collection and analysis was prioritised in terms of timing as the outcomes of this informed the interview schedule used in the qualitative aspect. Integration of the outcomes of both types of data analysis occurred during the data interpretation phase of the study which takes place in the Discussion chapter. The qualitative results were used to assist in explaining and interpreting the findings of the quantitative results; the design of this mixed methods research, according to Creswell's classification of mixed methods research strategies, is a sequential explanatory strategy (Creswell 2003). An additional reason for the inclusion of the qualitative aspect of the study was due to a gap in the literature as very few studies in this field of research have had a qualitative aspect to them. The straightforward design of this sequential study is a strength; the steps fall into clear, separate stages so it was easy to implement. However, it must be acknowledged that this form of research has posed additional challenges including the need for extensive data collection, the time-intensive nature of analysing both text and numeric data, and the requirement to understand both quantitative and qualitative forms of research (Creswell 2003). Details of both the quantitative and qualitative aspects of data collection and analysis will now be detailed.

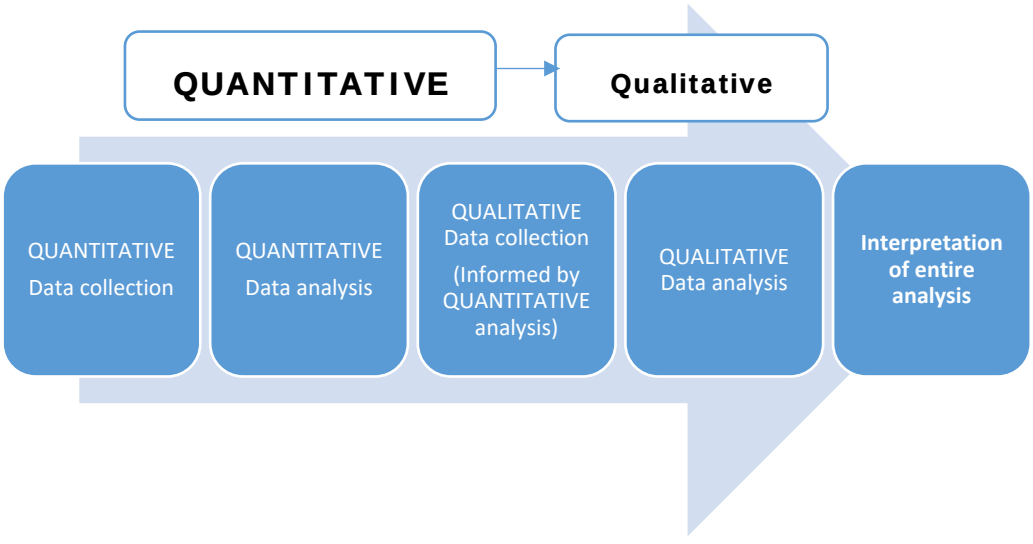


Figure 4.1: Sequential strategy used in this mixed methods study

4.4.1 Quantitative data collection and analysis

The data collection and analysis procedures will now be discussed for the quantitative aspect of the study. This will start with population and sampling, followed by the data analysis.

4.4.1.1 Population and sampling

In the quantitative aspect of the study, retrospective data for BSc Sport and Exercise Science students was acquired from the University Strategic Planning and Analytics Office once gatekeeper permission was obtained, this data already being anonymised on receipt. This data included student Level 3 entry qualifications (type of qualification, subjects, and grades), degree outcomes (% mark and classification), gender, ethnicity, and measures of social class (Socio-economic class using the Registrar General's classification system employed by HESA, and POLAR4).The data covered 5 academic years to include the Sport and Exercise Science graduates in 2018, and therefore the data included all students enrolling onto BSc Sport and Exercise Science in the academic years 2011/12 to 2015/16. The data was merged for analysis to increase the scale of the data and make it easier to spot patterns. However, this assumes the years are roughly the same and that broad intake of students hasn't changed. Statistical analysis of the data did not show any significant differences between the five cohorts and therefore supported the merging of the data. There were also no changes made in this time period in terms of entry criteria for admission onto the course.

A total of 531 students commenced Level one of the BSc Sport and Exercise course over the five-year period and therefore their records were potentially eligible for inclusion within the study. The exclusion of non-UK students, those who were admitted to the course with qualifications at Level four and above, and those that had left the course for reasons other than academic failure (withdrew from course, transferred to another course, health or personal circumstances), and those that had not yet completed the course, meant 182 student records were excluded, leaving a final sample of 349 students to be included in the data analysis.

4.4.1.2 Data analysis

All statistical data analyses were performed using SPSS version 25.0 (IBM Corp. 2017). Data was uploaded to SPSS and prepared for analysis numerically coding the data, defining variables appropriately (as scale, ordinal or nominal), adding variable and value labels, and recoding data into

new groups where required. Data analysis was then undertaken and included descriptive statistics, to describe and present data, as well as inferential statistics (Cohen, Manion, and Morrison 2011:606). Data was analysed using predominantly non-parametric statistics of categorical data. The Chi-square test was used to examine if there was a relationship between two categorical variables (Field 2013:838). This statistic is based on the idea of comparing frequencies you observe in certain categories to the frequencies you might expect to get in those categories by chance (838). Multinomial regression is used to explain the relationship between the dependent variable and one or more of the independent variables and is used to predict the probabilities of the different outcomes of a categorically distributed dependent variable, given a set of independent variables (Field 2013:879). This analysis was performed to model the relationship between the independent variables (e.g. Level 3 qualification, gender, ethnicity, etc.) and predict membership of three degree classification groups: *2.2, 2.1, 1st,* with *Fail* as the reference group (baseline outcome category). Parametric statistics were used when the data of both the dependent and independent variables were scale (continuous). This included the use of a) the independent samples t-test to measure the difference between the means of two samples containing different people; b) the paired t-test to measure the difference between the means of two samples that are related to one another i.e. contain the same people; c) one-way analysis of variance (ANOVA) to measure the difference between means of more than two samples, with the use of a Tukey post hoc test to identify where significant differences lie; and d) Pearson's correlation, to quantify the strength of the relationship between two variables (Williams and Wragg 2004). Furthermore, where appropriate, scale data was presented as Mean±SD. Statistical significance was set at $P<0.05$.

4.4.2 Qualitative data collection and analysis

The data collection and analysis procedures will now be discussed for the qualitative aspect of the study. This will start with the justification for the data collection method used in the study, a consideration of the reliability and validity strategies, the development of the interview schedule used in the study, details of the interview sample, and finally the data analysis.

4.4.2.1 Data collection method

The qualitative aspect of this study involved interviews with current Sport and Exercise Science students. Interviews are "a verbal exchange in which

one person, the interviewer, attempts to acquire information from and gain an understanding of another person, the interviewee" (Gray 2014:382). Interviews are a good method when the objective of the research is largely exploratory and involving the examination of feelings or attitudes and they allow interviewees to reflect on events without having to commit themselves to writing, as well as having the opportunity to question meanings and things be immediately clarified by the interviewer (Gray 2014:383). I acknowledge that a disadvantage of interviews over survey methods is that they are less suitable for wide coverage and arranging and conducting the interviews are more time consuming than implementing a questionnaire.

4.4.2.2 Reliability and validity strategies

The interview schedule was semi structured with the same five main questions being asked to each of my respondents for consistency. However, as detailed below, follow up and prompt questions were asked depending on responses to the main questions. Consistency is not about treating everyone the same but ensuring I tried to answer my research questions equally well with differing participants. An additional quality indicator considered was accuracy. Ensuring the data is a fair representation of what the informants said is important, so interviewees were invited to validate transcriptions of their interviews. Finally, I needed to demonstrate neutrality so as my own actions and perceptions did not influence the interviews (Gray 2014:389-390). To do so, and to also assist in the data collection throughout this stage of my research, I used a field log to chronicle my own thinking, feelings, experiences, and perceptions.

According to Gray (2014:388), validity can be directly addressed by attempting to ensure that the content of the interview questions directly concentrates on the research objectives. Arksey and Knight (1999) suggest that validity can be strengthened by using interview techniques that build rapport and trust so allowing interviewees the scope to express themselves; prompting interviewees to illustrate and expand on their initial responses; ensuring the interview is long enough to explore subjects in depth; and constructing questions drawn from the literature and from pilot interview work with respondents. Another important issue to consider was external validity, which is the extent to which the study's findings can be generalized. Gray (2014:388) suggests interviews are best used in small scale studies as large samples can be expensive and time-consuming, hence external validity may be restricted. It has therefore been suggested that a good rule-of-

thumb is to aim for around 12 interviews of 30 minutes length or the equivalent six to eight interviews around an hour (Rowley 2012). All of these points were considered to maximise the validity of the interviews.

4.4.2.3 Interview schedule

The interviews were one-to-one, face-to face and semi-structured. A guide was used for the topics to be covered with default wording and question order, allowing for modification based on the flow of the interview and additional unplanned questions where appropriate (Robson and McCartan 2016) or further probing for more detailed responses (Gray 2014:382). Open questions were used as they provide no restrictions on content or manner of the reply other than on the general subject area. Such questions were flexible allowing the interviewer to go into more depth or clear up misunderstandings; enable testing of the limits of a respondent's knowledge; encourage cooperation and rapport; allow the interviewer to make a truer assessment of what the respondent really believes; and can produce unexpected or unanticipated answers. However, it is acknowledged that they can make the interview more difficult to analyse compared to closed questions (Creswell 2003).

The sequence of questions during the interview schedule included an introduction (introductions, purpose of interview, assures confidentiality, asks permission to take notes/record), followed by a 'warm-up' question which was easy and non-threatening to settle down the interviewer and interviewee. This was followed by the main body of the interview where the questions covered the main purpose of the interview. The closure of the interview included a thank you and goodbye (Robson 2011). In accordance with Gray (2011:395), questions that dealt with similar issues were clustered and sequenced into a logical order. The schedule followed Rowley's (2012) recommendations that a semi-structured interview should have around 6-12 well-chosen questions, with each question possibly having 2-4 sub-questions or prompts which can be used for flexibility by the interviewer to ensure the interviewee explores the main theme in sufficient depth. The interview was also designed to last no longer than 60 minutes as, according to Robson (2011), anything under half an hour is unlikely to be valuable but anything much over an hour may be making unreasonable demands on busy interviewees and could affect the number of willing volunteers. Long interviews can also produce 'respondent fatigue' where participants are unwilling to continue.

Bourdieu's conceptual framework underpinned the development of the interview schedule, which was designed to explore the academic and social factors affecting degree attainment in Sport and Exercise Science. Interview questions were structured to gain an understanding of the student's family background and childhood to gain an insight into their family cultural capital and habitus, as well as additional cultural capital they may have acquired, for example, though secondary school, hobbies and sport. For example, the first question asked about family life when they were growing up. Sub-questions/prompts then asked about other important aspects of family capital such as their parents occupations and level of education. In addition, sub questions/prompts were included to ask about hobbies and interests as well as school and the importance of education in the family. An insight into the family's economic capital could also be obtained from this line of questioning, for example, from the details of parental occupations, family holidays, and the types of sport and physical activities undertaken. The second question then asked about college life to gain information on the participants post-16 educational experience, including the Level 3 qualifications they studied, and their motivations for wanting to go to university. This part of the interview was important for exploring the participants institutionalised cultural capital, that is their educational credentials and qualifications. Questions then followed that explored the participants early university experience both academically and socially, teaching and learning, academic performance, and perceptions of success; their likely degree outcome and future career aspirations. This line of questioning was to better understand how their capital, and in particular cultural capital, had prepared them for their university studies and influenced their learner identity and habitus. The full interview guide, including questions and sub-questions/prompts, is provided in Appendix 1. Several drafts of the interview schedule were produced and discussed with another researcher before a final draft was piloted with a recent graduate of BSc Sport and Exercise Science. Following this pilot, no modifications were made to the interview schedule before it was used in the study. There was a single interview with each interviewee, and interviews were recorded and subsequently transcribed.

4.4.2.4 Interview sample

The interview sample was obtained from students on year two Sport and Exercise Science within my HEI in 2019. Much consideration was given as to

which year of the course to interview students from to obtain a manageable sample and the best data for answering the research questions. Year 1 students are more likely to remember the transition into university (including how well their prior qualifications prepared them, how they settled into university etc.) than year three students who may not be able to recall as readily. However, year three students have had more time in university and have more experience to reflect on, including opinions on their own attainment and factors that may have influenced it. Students from all three years would have been ideal but the sample size would be too large for the scope of the research, therefore year two students offered the best balance in order to gain an insight into the transition into university as well as having sufficient experience of university teaching, learning and assessment.

To recruit volunteers, I attended a lecture where attendance by all year two Sport and Exercise Students was required, although not all of them attended. Gaining entry to this population of students was easy as it was via a colleague within my School. I introduced myself to the students in attendance including my role within the School, provided details of the purpose and requirements of the study, and asked for volunteers to contact me to express their interest. I also attended tutorial sessions over the course of that week to provide additional information if required, answer questions etc. The plan was that from the volunteers I got, a sample of students would be selected using information on the university records system; I would then contact these students to inform them they have been selected and arrangements will be made to conduct their individual interviews. The aim was to get representation from those who have studied A-Levels and those that have studied BTECs, from males and females, and BME as well as white students, thereby following the advice from Gray (2014:399) which recommends that you should select a sample that allows for a subject to be viewed from all relevant perspectives. This potential for generalization would also be enhanced by maximising the range of a sample's characteristics (Cohen, Manion, and Morrison 2011:242). However, it was acknowledged at the proposal phase of the study that I may have an issue getting volunteers, which in turn would lead to biases in the sample (Creswell 2003). I did indeed struggle to get volunteers, only managing to recruit nine in total despite several follow up email requests. The decision was therefore made to use all nine as participants in the study. All qualifications, gender and BME groups were represented in the sample, but there was a bias towards BME students, and females, with only one student having studied BTEC only (equivalent to three A-Levels) (Table 4.1). It was acknowledged that with

only one student who had studied BTEC only may make identifying differences between qualification types difficult and would limit the generalizability of the qualitative data. However, as suggested by Cohen, Manion and Morrison (2011:243) the research should perhaps be regarded as "raising working hypotheses rather than conclusions, i.e. about being 'work in progress' rather than unassailable truths". Furthermore, generalization requires extrapolation and whilst not necessarily being able to extrapolate on the basis of a fully representative sample in this present study, according to Cohen, Manion and Morrison (2011:294-95) extrapolation to relevant theory and the testing of that theory is possible.

All students were interviewed within a two-week period at the start of the first semester of their second year of studies. The interview durations ranged from 26 to 54 minutes. I no longer teach on this course, so I did not know any of the students and they did not know me. This may have contributed to the difficulty in recruiting students, students being less likely to talk to someone they didn't know and in a position of authority and more likely to volunteer if they knew me well and had an established relationship and rapport. It must also be acknowledged that my position as Deputy Head could have influenced their responses during the interview, not wanting to disclose information to a senior member of the School. However, I tried to build up a good rapport with the students during the interview and made them feel relaxed enough to partly overcome this difficulty.

Table 4.1 is provided as a useful reference point to return to when reading the subsequent interview analysis (Chapter 6) and discussion (Chapter 7) chapters.

Table 4.1: Subject characteristics of the 9 students interviewed

Pseudonym	Gender	Ethnicity	Level 3 Qualifications	Post-16 education
Kate	F	BME	A-Levels	Boarding School 6th form
Ayesha	F	BME	A-Levels	School 6th Form
Poppy	F	BME	A-Levels	School 6th Form
Isla	F	white	A-Levels	School 6th Form
Charlotte	F	white	Mixed (2 A-Level + 1 BTEC)	School 6th Form
Chloe	F	white	Mixed (1 A-Level + 2 BTEC)	School 6th Form
Isaac	M	BME	A-Levels	School 6th Form
Roberto	M	BME	Mixed (2 A-Level + 1 BTEC)	School 6th Form
Jacob	M	BME	BTEC	FE College

In addition to the information in Table 4.1, the following summaries are provided for each of the participants:

Kate was born in Ghana but moved to the UK with her family when she was five; her immediate family now lives in Saudi Arabia. Her parents went to University in both Ghana and the UK and are now teachers in Saudi Arabia. She went to an all-girls grammar school in England during the early part of her secondary schooling before moving to Saudi Arabia when she was about 13 and the attended an international school. Kate's parents made the decision for her to attend boarding school in the UK to study for her A-Levels whilst they remained in Saudi Arabia. Kate's sporting passion is basketball and is the only one of the females interviewed whose main sport or physical activity was a team sport, the rest of the females were involved in individual sports.

Ayesha had experience of university education within her immediate family with her dad, as well as cousins who were either at university or had graduated. Her parents both work, with dad working for a company who imports fruit and vegetables and mum as a civilian for the London Metropolitan Police. Ayesha was well aware that she needed to develop skills and competencies that would enhance her future employability prospects and make her stand out above others. As a result, she did the Duke of Edinburgh Bronze award, as well doing National Citizen Service which included a month volunteering in Cambodia when she was 16. She would have liked to do A-level PE alongside her two other A-Levels at 6th form but they did not offer it. Originally wanting to do a degree in Physiotherapy at university, she didn't get the grades so plans to do a pre-registration Masters in Physiotherapy after she graduates.

Poppy is an individual who has moved around a lot. This was as a result of her mum's job, as well as a period of two years where she lived with her dad in Qatar in the Middle East. However, despite all this disruption in her life she did go to the same all-girls School from 11-16 before deciding herself to move to a different school 6th form to take her A-Levels. Both of her parents are degree educated and were influential in her decision to attend university, although she had originally chosen her A-Level subjects based on doing Medicine as that is the direction her mum had wanted her to go. Poppy even gave up her athletics during her A-Level studies at the request of her mum so she could concentrate on her studies She experienced some mental health difficulties and attained lower grades than she had expected. Now on a degree course of her choosing and involved in athletics again, Poppy reports being in a much better place mentally and is doing well academically.

Despite not going to university, Isla's mum works as a global accounts manager for an audio-visual company and her dad works in banking as a director. Her older sister and stepsiblings on her dad's side went to university and now work as primary school teachers. Isla went to grammar school from 11-16 and then moved to another grammar school 6th form to do her A-Levels. Isla's mum was always strict with her schooling and encouraged her to do well and was very influential in her decision to study A-Levels and go to university.

Although not degree educated, both of Charlotte's parents have senior roles in accounting in large companies. However, she does have cousins and a grandmother who are degree educated. Charlotte was encouraged to do well in her education and get good grades, particularly by her dad. Her parents

also made the decision to move in order to get into the catchment area of a particular secondary school when she finished her primary education. Despite not being sure of what she wanted to do as a career in the future and what to study at university, she decided to continue into the 6th form of her school due to its familiarity including the teachers and her friends. She chose to do two A-Levels and BTEC in subjects that she thought would keep her options open. Her dad was very keen for her to go to university and as many of her friends were going decided she should go too.

Chloe's parents are foster carers, with mum being a full-time carer and dad working as a builder alongside before retiring when she was ten. Her parents haven't been to university, but she has an older sister who has now graduated being the first in the family to get a degree. Chloe failed the 11+ and went to a comprehensive sports college where she stayed on in the 6th form. She studied an A-Level alongside BTEC Sport and BTEC Health and Social care and had previously wanted to be a social worker. She took a year off before going to university as she was not sure what she wanted to do or study. Her love of sport, particularly gymnastics, resulted in her decision to study a degree in Sport and Exercise Science

Isaac's dad is Ghanaian and after studying at a UK university, now works as a quantity surveyor. His mother is German and works as a German tutor but didn't go to university. He stayed on at his school's 6th form to do his A-Levels where he was a member of the school council and Head boy. As with all the students interviewed, he is involved in sport and as a keen footballer and basketball player he decided to become a qualified referee in both of those sports.

Roberto's parents are both from overseas but moved to this country in their late teens. Life was often difficult for Roberto as he grew up in a single parent family and he had to help care for his younger siblings whilst his mum worked to support them. His parents didn't go to university, but his older sister is currently at university studying History. The importance of education was instilled into him by his parents, and they encouraged him to do well at school. He therefore made the decision to progress into his school's 6th form where he studied two A-levels and BTEC Sport. It was during his time at 6th form he decided that he definitely wanted to go to university as this was the best route for a career in sport.

Jacob's parents are both from the Caribbean but moved to the UK to bring up their children. Both now retired, his dad was a bailiff and his mum worked

for the local council special educational needs and advisory service. They didn't go to university but lots of other family members did and became teachers due to lack of other positions for degree qualified people in the Caribbean. He originally progressed into the 6th form at his school studying A-levels as he felt that was the normal route to take. However, he quickly realised this route wasn't for him so left and did an apprenticeship for a year before getting a job in recruitment. He then decided to go back into education via a local FE college. Because of his love of sport, he decided he wanted to pursue this as a career, so he decided to study the BTEC in Sport and Exercise Science. He was discouraged from going to university by his tutor but encouraged by his mum so decided he would go and give it a try, leaving if it didn't work out. He was the only student that reported having a part-time job during their studies, this being as a result of financial difficulties in the family. He was the only student interviewed who failed some first-year modules but he did go on to pass them on resit.

4.4.2.5 Data analysis

The interview data was analysed using a thematic coding approach, as suggested by Braun and Clarke (2006), due to its logical nature of grouping and categorising key data to highlight trends and relationships. By using this method themes can "capture important things in relation to my research question" (Gray 2014:609). The key concepts of the Bourdieusian theoretical framework that underpin this study, as outlined in Chapter 3, informed the thematic coding of the data. However, I have also worked in an inductive way in order to remain open other interpretations and understanding of the data. I knew some of the initial codes, such as family capital and habitus, and other codes developed in a more emergent way. Therefore, the conceptual framework was not fixed from the start and continued to be developed during the entire data analysis process.

NVivo version 12.0, a qualitative data analysis computer software package (QSR International 1999) was used to store the transcribed interview documents and analyse the data. Whilst reading through each interview transcript within NVivo, emerging themes were 'coded.' This involves selecting interesting comments and putting them into containers called nodes. As you code your material by theme, a list of nodes developed. At regular intervals, this list was checked to see whether related themes could be grouped together in a hierarchy. An example of this process will now be described.

During the analysis, when there was reference to a participant acquiring cultural capital, this text was selected and added to the node which held all of the content about this theme. When it became apparent that there were many references to sport a 'sport' sub-theme was created within this node; nodes becoming essentially key coding themes with sub-themes . The other sub-themes of 'hobbies' and 'trips and holidays' within this node were created in the same way. All three sub-themes were grouped under the node, or key theme, of 'other cultural capital'. This key theme included opportunities to acquire cultural capital that were different to that inherited from the family that were coded within the family capital and habitus node/key theme. The other nodes/key themes and sub-themes were developed in a similar way. Various versions of the thematic framework were shared with another researcher to discuss understandings and interpretations and nodes were re-organised on several occasions where appropriate. The final thematic coding framework including nodes/key themes and sub-themes is provided in Appendix 2 along with a screen shot of an example of coding of an interview text within the 'sport' sub-theme. Examples of coded text were selected for inclusion as quotes during the writing of the interview analysis chapter (Chapter 6). Several versions of the data analysis were discussed with another researcher to check understanding and interpretation. The use of quotes was also revised during this process to ensure broad exemplification from the interview data and to minimise repetition of quotes.

As previously mentioned, a real advantage of being an insider researcher is during the analysis and interpretation of the data. During the interviews, when the students discussed the teaching, learning and assessment aspects of their degree course and the university I was often familiar with the modules, assessments etc. that they spoke about. My knowledge of the course and university therefore enabled me to interpret what they said in relation to the situated nature of their individual experiences, and I was less likely to have misunderstood what they said or take it out of context. An outsider researcher is potentially at risk of not noticing interesting data because of a lack of understanding of the specific context that the comments are related to. However, I was mindful of the criticisms of an insider researchers being 'too familiar' and taking for granted the implicit patterns and regularities they expect (Fleming 2018).

4.5 Research approval and ethical considerations

4.5.1 Research approval

This study received ethical approval from the University of Nottingham on 13/11/18. As this research was conducted on data obtained from my own university, ethical approval was also required from them. The study was deemed to be 'medium risk' and ethical approval was received on 20/11/18. Access to the records required for data extraction for the quantitative aspect of the study was obtained from the gatekeeper.

4.5.2 Ethical considerations

My research practice is based upon sound ethical principles. According to Gallagher (2005) "such principles are essential in order to ensure the conclusions drawn from the research are valid and that the integrity of the methodology used in arriving at these conclusions is beyond reproach". Therefore, I have followed the University of Nottingham's Code of Research Conduct and Research Ethics (University of Nottingham 2019) to ensure adherence to high standards of performance and ethical conduct throughout this research. The ethical issues that were considered during this study will now be outlined.

Firstly, I had responsibilities to the participants in my study. I conveyed the purpose of the study to the participants accurately and openly to avoid deception, which is when "participants understand one purpose for a study, but the researcher has a different purpose in mind" (Creswell 2003:63-64). Informed consent was obtained from all research participants so that they could make an informed decision as to whether to take part in the study or not (Gray 2014:75). Instructions were given that participation in the study was voluntary, meaning that it was free from coercion; and participants were told they were free to withdraw their participation from the research at any time and suffer no adverse consequences from withdrawing their involvement. Along with a verbal explanation about the study, participants were provided with a written information sheet along with their consent form which they were required to sign as consenting to take part in this study (Robson and McCartan 2016). This written consent ensured explicit consent to obtain, hold and use the participant's personal information as defined by the General Data Protection Regulation (GDPR) (University of Nottingham, 2019).

During the analysis and interpretation of data obtained during my research, there were issues that required "good ethical decisions" (Cresswell, 2003:66). One ethical challenge relates to privacy and confidentiality. I will not be specifically identifying my university, however, through future publication of my details as author (which normally includes the university), it may be easy to make the connection to where the research was undertaken. Individuals involved in the study also needed to have their identities protected. Pseudonyms have been used, and in addition it was often necessary to change small details, such as school or place names, to protect the identity of the participants. As mentioned above, if the university can be identified through me as author, caution has been required to ensure that demographics and descriptions (Trowler 2011) of the context of the study do not reveal the identities of the participants. Anonymity of the quantitative data has been ensured by utilising identification code numbers to correspond to the research data in any research paperwork and password-protected computer files. Anonymity of the data is further assured when presenting the results with minimal risk of identifying an individual participant during the analysis and presentation as it is analysed and presented at a cohort level.

Confidentiality of the data collected is protected by keeping all paper records in a locked drawer within a secure office; all electronic computer records are password protected. Data will be retained for at least seven years from the date any publication which is based upon them, and data will be stored in their original form (University of Nottingham 2019). Data will then be then discarded so that it doesn't fall into the hands of other researchers who could appropriate it for other purposes (Creswell 2003:66).

The following two chapters will now present the analysed data collected in this mixed-methods study. Chapter 5 is the presentation of the quantitative results by way of the statistically analysed cohort data. This is followed by the presentation of the interview analysis in Chapter 6, which is the qualitative aspect of the study.

5 Quantitative analysis

5.1 Introduction

This chapter presents the quantitative analysis of this mixed-methods study. Statistical analysis was conducted on the retrospective data for the five cohorts of students between 2011 and 2015 to address the overarching research question of whether academic and social factors predict attainment in BSc Sport and Exercise Science at a post-1992 university. The effect of prior educational attainment, both with regards to UCAS tariff points and type of qualification studied at Level 3, was investigated statistically and other student demographics that may also result in differential outcomes in degree attainment were also considered such as gender, ethnicity, socio-economic class (SEC), and POLAR4 classification (as previously defined in Chapter 2). Initial exploratory analysis of these factors (independent variables) and their association with degree classification (dependent variable) was conducted, as well as possible interactions between these factors. The outcome of this exploratory analysis then informed multinomial logistic regression to generate a model to predict degree classification; as detailed in the methods and methodology chapter, examination of the data meant the proportional odds assumption does not apply and therefore ordinal logistic regression was not used.

This chapter begins with the descriptive statistics of the data sample used, followed by the initial exploratory statistical analysis of the independent variables; prior educational attainment, including UCAS Tariff points and type of Level 3 qualification, gender, ethnicity, SEC representation in HE, and POLAR4. This will be followed by considering possible interactions between these factors and will conclude with the results of the multinomial logistic regression analysis.

5.2 Descriptive statistics of the sample

Table 5.1 displays the descriptive statistics for the sample of BSc Sport and Exercise Science students. The original sample size of the five cohorts of students was 531 but the exclusion of non-UK students, those who had not yet completed the course, those that withdrew or changed course, those with missing degree classification data, and those who were admitted to the course with qualifications at Level four and above, reduced this to a sample size of 349.

Table 5.1: Descriptive statistics for the student sample.

Category	Number of students	% of students
Gender		
Male	275	78.8
Female	74	21.2
Ethnicity		
White	213	61.0
BME	136	39.0
Black	*48*	*13.8*
Asian	*67*	*19.2*
Other	*21*	*6.0*
POLAR 4		
Quintile 1	48	13.8
Quintile 2	62	17.8
Quintile 3	79	22.6
Quintile 4	77	22.1
Quintile 5	83	23.8
SEC representation in HE		
Under- represented	163	46.7
High representation	108	30.9
Missing data	*78*	*22.3*
Level 3 qualifications		
A-Levels	183	53.9
BTEC	83	23.8
Mixed A/AS-Level and	68	19.5
Other	10	2.9

As can be seen in Table 5.1, most students admitted to the course were males (78.8%), and there was a larger population of white students (61%). The lowest proportion of students starting the course were from *Quintile 1* of the *POLAR4* classification (13.8%), with *Quintile 5* having the highest proportion (23.8%). Where data was available, students are mainly from the SEC category of lower managerial (20.3%), with the least from the lower supervisory and technical (4%). Due to a large amount of missing data and a large number of categories (resulting in some having very low data counts), SEC was re-grouped into *SEC representation in HE*. This was done with reference to the UK Performance Indicators information provided by HESA (2020): *High representation in HE* group includes SEC categories 1-3, and the *under-represented in HE* category includes SEC categories 4-7, with the decision made to include category 8 (long-term unemployment and never worked) within the under-represented group. A larger proportion of students were in the *under-representation in HE group* (SEC 4-8; 46.7%), with 30.9% being from the *high representation in HE* (SEC 1-3) group. Most students were admitted to the course having studied *A-Levels* (53.9%), with *BTECs* having been studied by 22.8% of students. It is important to highlight that 19.5% of students had studied a mixture of A/AS-Levels and BTEC qualifications (*Mixed*). The '*other*' category included students that had studied IB, Access to HE, and Foundation year courses and made up only 2.9% of the students who entered the course.

Figure 5.1 shows the distribution of degree awards obtained by the students over the five-year period analysed. The unclassified category is where students obtained a pass degree but did not qualify for Honours. The largest category was those students who obtained a 2.1 (45.3%). The proportion of students who obtained a 'good' degree (*1st* and *2.1*) was 55.6%, and those who were awarded a degree (any honours degree classification and unclassified) was 83.7%. This data did not follow a normal distribution and was skewed because of the high proportion of students who failed to obtain a degree. There was no significant association between the degree start year and degree classification ($\chi^2(20)=21.67$, $p=0.359$).

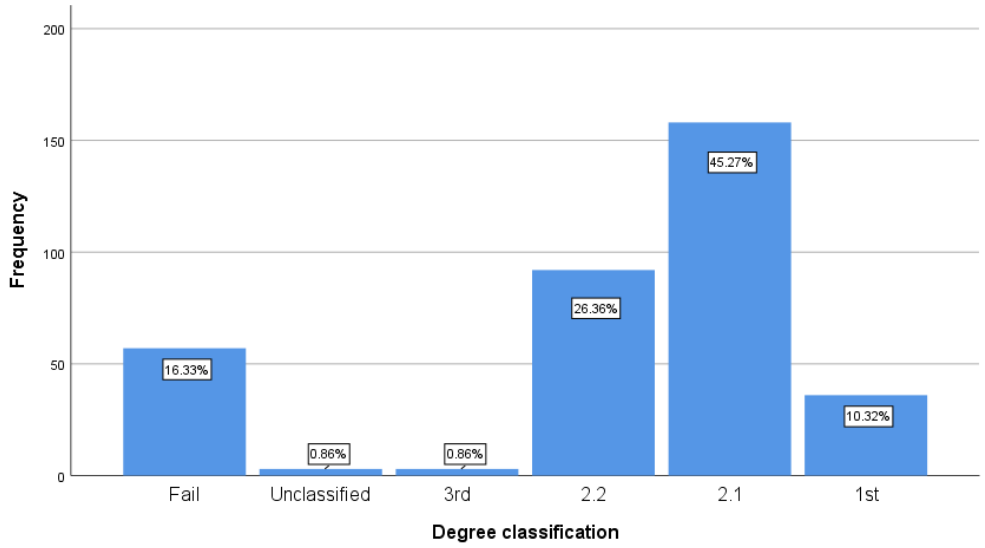


Figure 5.1: Distribution of degree awards.

Proportion of students (%) indicated on the graph (n=349)

5.2.1 Prior educational attainment

The influence of prior educational attainment on degree classification was investigated and included the total UCAS tariff (*Total UCAS Tariff*), tariff from three A-Levels or equivalent (*Tariff from 3*), as well as type of *Level 3 qualification* studied. For those students that studied A-Levels, particular A-Levels are often seen as being advantageous amongst colleagues to the study of sport and exercise, therefore these A-Levels were examined to see if they offered any advantage with regards to degree classification.

The influence of prior educational attainment will be preceded by a summary of the UCAS tariff data which includes highlighting any differences in prior educational attainment as a result of *gender, ethnicity, SEC representation in HE, POLAR4 classification,* and *Level 3 qualification*. This ensured a clear picture of student attainment was obtained as they entered the course, before looking at the effects of these factors on degree attainment.

5.2.1.1 Summary of UCAS tariff data on admission to the course

Figure 5.2 shows the distribution of the Total UCAS tariff points upon entry to the course, the mean being 302±86 (range 130-660).

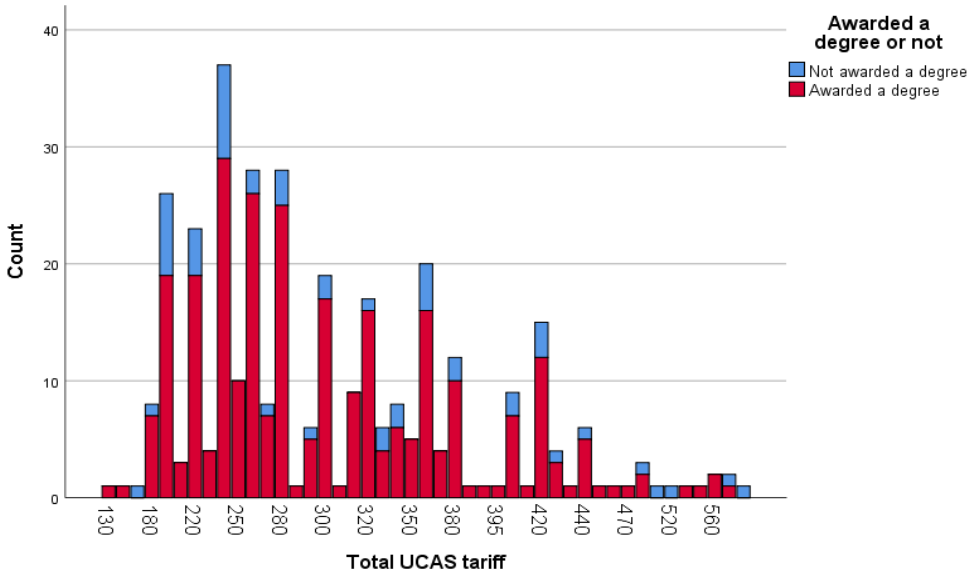


Figure 5.2: Distribution of total UCAS tariff points for students who were awarded a degree and those who were not.

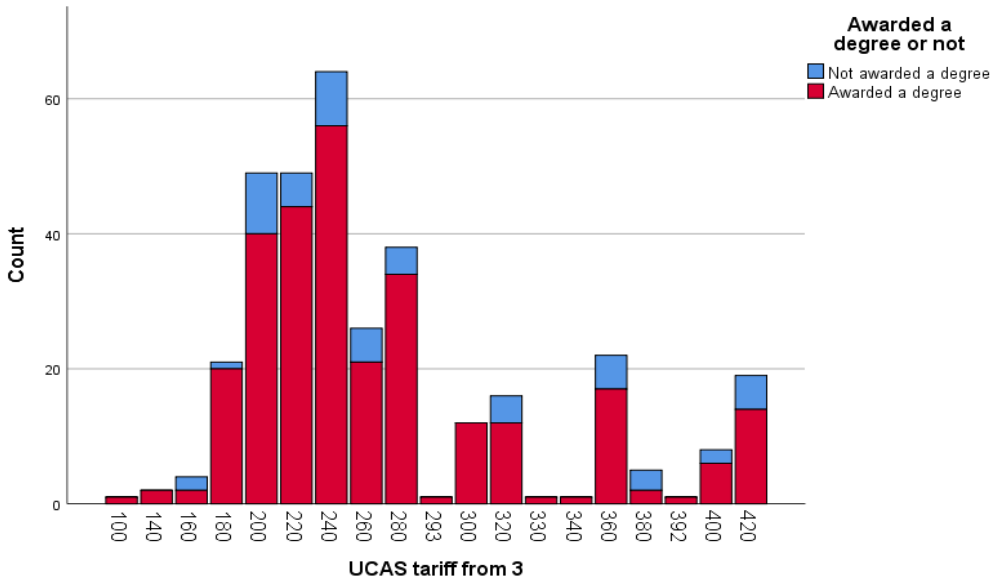


Figure 5.3: Distribution of UCAS tariff points from 3 (A-Levels or equivalent) for those that were awarded a degree and those that were not.

Total UCAS Tariff takes into account all of the qualifications a student has been awarded at Level 3 that carry UCAS tariff points. As a typical offer from the institution is based on 3 A-Levels or equivalent qualifications, it was decided to also look at UCAS Tariff based on this (*Tariff from 3*).

Figure 5.3 shows the distribution of UCAS *Tariff from 3*, the mean being 262±68 (range 100-420). The qualifications that those students took in addition to the equivalent of 3 A-Levels significantly increased the tariff points obtained, resulting in a significantly higher *Total UCAS Tariff* compared to *Tariff from 3* ($p<0.05$; Table 2). Neither UCAS Tariff point category included those who had studied qualifications in the '*other*' category as 9 out of the 10 were not on the UCAS Tariff system. Both Figure 5.2 and 5.3 therefore have n=340.

Both Figure 5.2 and 5.3 are presented in stacked bars to show who subsequently obtained a degree and who did not. It may be expected that those who failed to get a degree would predominantly at the lower points end, but this was not the case as they were spread across the points range. A student obtaining 3 A-Levels at grade A, for example, would be awarded 360 points. The equivalent grades from a BTEC Extended Diploma would be triple Distinction (DDD). A typical offer to a student on the course is 3 A-Levels at grade C which results in 240 points. The equivalent grades for a BTEC Extended Diploma is triple Merit (MMM). The maximum points that could be obtained from 3 A-Levels or equivalent qualifications is 420 UCAS points, which results from 3 A* grades at A-Level or triple Distinction* from a BTEC Extended Diploma (D*D*D*). Additional qualifications carrying UCAS points, for example AS-Levels, means that *Total UCAS Tariff* points can exceed 420 as shown in Figure 5.2. There is a left skew due to most students achieving around the 240 points from three A-Levels or equivalent, which is the typical offer for entry onto the course.

As shown in Table 5.2, there is no significant difference ($p>0.05$) in *Total UCAS tariff* (300±87 vs.309±78) or *Tariff from 3* (261±70 vs. 266.74±61) for *males* and *females* respectively, or for *Total UCAS Tariff* (296±79 vs 310±95) or *Tariff from 3* (259±67 vs. 268±69) between *white* and *BME* students, respectively. The *SEC representation in HE* groups had significantly different ($p<0.05$) UCAS Tariff points, with the *Under-represented in HE* group having a higher points total compared to the *High representation in HE* group for both *Total UCAS Tariff* and *Tariff from 3*, respectively (311±92 vs. 293±74; 268±70 vs. 255±61). *POLAR4* classification had a significant main effect on UCAS Tariff points ($p<0.05$) with *Quintile 5* having the lowest tariff points (279±72.73 and 240±54) and *Quintile 2* the highest (323±94 and 282±75) for *Total UCAS Tariff* and *Tariff from 3*, respectively.

Table 5.2: Comparison of UCAS tariff points for the different academic and social factors being investigated.

Category	Total UCAS tariff	Tariff from 3
Gender		
Male	300±87	261±70
Female	309±78	267±61
Ethnicity		
White	296±79	259±67
BME	310±95	268±69
POLAR 4		
Quintile 1	294±73	266±71
Quintile 2	323±94*	282±75*
Quintile 3	318±105*	273±74*
Quintile 4	296±68	257±60
Quintile 5	279±73*	240±54*
SEC representation in HE		
Underrepresented	311±92*	268±70
High representation	293±74*	255±61
Level 3 qualifications		
A-Levels	265±59*	227±36**
BTEC	348±96*	325±75**
Mixed A-Level/BTEC	345±86*	282±63**

Mean±SD; = p<0.05 between under-represented vs. high-representation in HE; POLAR 4 Q5 vs. Q2 and Q5 vs. Q3; A-Level vs. BTEC, A-Level vs. Mixed, **=p<0.05 all pairwise comparisons within Level 3 qualifications (n=340).*

In terms of the type of qualifications for *Total UCAS Tariff*, *A-Level* students had a significantly lower (p<0.05) point score, and a narrower spread of points (265±59) compared to the *Mixed* group (345±86), and *BTEC* (348±96) who had the highest points score and a larger point spread. Qualification type also had a significant effect on *Tariff from 3* (P<0.05; significant differences between all pairwise comparisons), with *A-Level* having the lowest points total and spread of points (227±36), the *BTEC* group having the highest points total and spread of points (325±75), and the *Mixed* group falling in between in terms of points and spread (282±63).

'*Other'* as a qualification category was not included in this analysis as only 1 student of the 10 in this group had a qualification which carried UCAS tariff points.

To summarise, *male* and *female* students, and *white* and *BME* students, started the course at the same attainment level from Level 3 qualifications as neither gender nor ethnicity resulted in significant differences in UCAS tariff. The *SEC under-represented in HE* group had a higher attainment level when starting the course as they had higher UCAS tariff points. Similarly, despite *Quintile 5* being the highest undergraduate participation area, students had the lowest tariff points; *Quintile 2* had the highest. In terms of the Level 3 qualification students entered the course with, *BTEC* students had the highest UCAS tariff points on entry, with *A-Level* students having the lowest. This data presented in the following study (Table 5.2) may give the impression that students who have studied *BTEC* or *Mixed* qualifications have higher attainment compared to those students who had studied just A-Levels. However, important to remember that data presented in this study may be affected by the possible non-equivalence of A-Level and BTEC qualifications as detailed in the literature reviewed in Chapter 2. This suggestion of non-equivalence of qualifications will be further discussed in light of this study's findings in Chapter 7.

5.2.1.2 Level 3 qualification

Figure 5.4 shows percent of Level 3 qualification by degree classification. Of the students who had studied *A-Levels*, 67.5% obtained a 'good' degree compared to 42.2% and 42.6% of those students that had studied *BTEC* or *Mixed* qualifications (BTEC and A-Levels), respectively. The highest proportion of those who failed to get a degree had studied *BTEC* (33.7%) and *Other* qualifications (40%). The '*other'* category has been included in the data analysis where Level 3 qualification is the independent variable, but as the number in this category is only 10 (Table 5.2), detailed description is often not provided. The association between *Level 3 qualification* and degree classification was found to be significant ($\chi^2(15)=71.74$, $p<0.001$). In summary, students were more likely to obtain a degree and get a higher classification if they had studied *A-Level*, despite those students having the lowest UCAS tariff points on entry to the course.

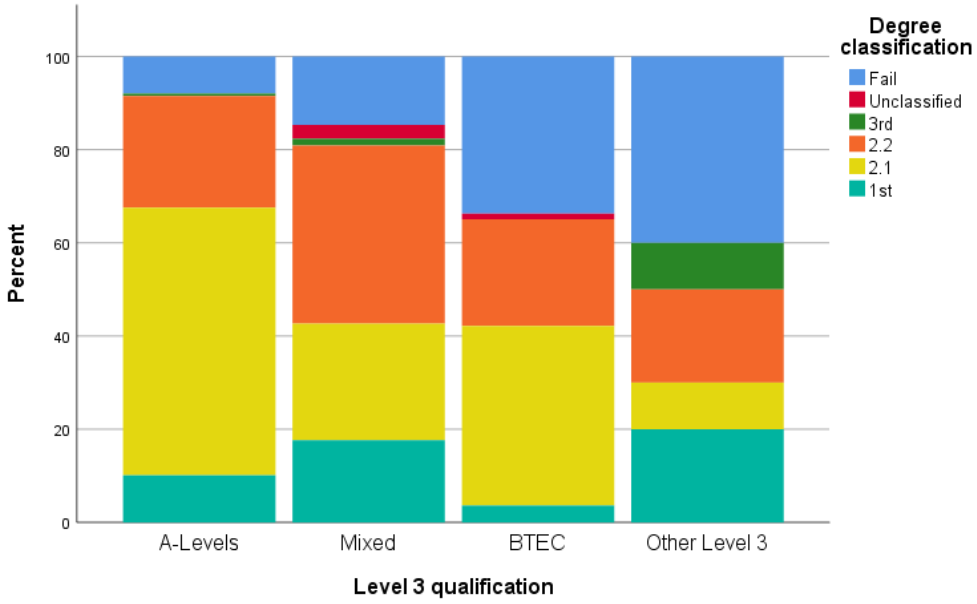


Figure 5.4: Percent of degree classification by Level 3 qualification.

5.2.1.3 UCAS Tariff points

For the analysis of the association between UCAS tariff points and degree classification, *Total UCAS Tariff* points and *Tariff from 3* were divided into 3 groups based on frequency so that all 3 groups were roughly equal in number when all qualifications were being considered. For the correlation analysis between degree mark and UCAS points, the points data was ungrouped and in its original form. *Total UCAS Tariff* results will be presented first, followed by *Tariff from 3*.

The *Total UCAS Tariff* groupings used in the analysis were as follows: less than 250 (<250), 250-320, and over 320 (>320). The standard offer for entry to the BSc Sport and Exercise Science course is 240 from 3 A-Levels or equivalent, which is 3 A-Levels C grades, or MMM for BTEC Extended diploma, so would fall within the <250 category. When all qualifications are included, as in the *Total UCAS Tariff,* many of the students much higher points totals. For example, a student with CCC at A-Level plus an AS-Level C grade would have 280 points and be in the 250-320 points category. A student with BBB at A-Level (300 points) and a B (50 points) at AS-Level would have 350 points in total and would be in the >320 points category. A student with DDD in BTEC Extended Diploma would have 320 points would

be in the 250-320 category, and those with D*D*D* would have 420 points and be in the >320 category.

As shown in Figure 5.5 for *Total UCAS Tariff*, the proportion of students who obtained a 'good' degree was highest for the *250-320* group (65.8%) compared to the *<250* and *>320* groups which had similar proportions (50.9% and 52.2%). The same pattern was observed across the 3 tariff groups when considering those that obtained a degree (81.6%, 91.5%, and 79.8%) with the *250-320* group having the highest proportion of students. The association between *Total UCAS Tariff* and degree classification was found to be not significant (χ^2 (10)=15.42, p=0.12). Therefore, the results suggest that when all qualifications are considered together, an increase in *Total UCAS Tariff* points from *<250* points to *250-320* points results in a higher degree classification, but further increases above 320 points does not increase this further and there is in fact a decrease. Additional analysis looking at the relationship of overall degree mark (%) and *Total UCAS Tariff* (for those that obtained a degree) found no significant relationship (Table 5.3; r=0.094, p>0.05). As previously detailed earlier in this chapter, it is important to remember when all qualifications are considered together there is a possibility that the BTEC qualifications may be overvalued in terms of UCAS tariff. For that reason, it is also important to consider the Level 3 qualifications separately in the analysis.

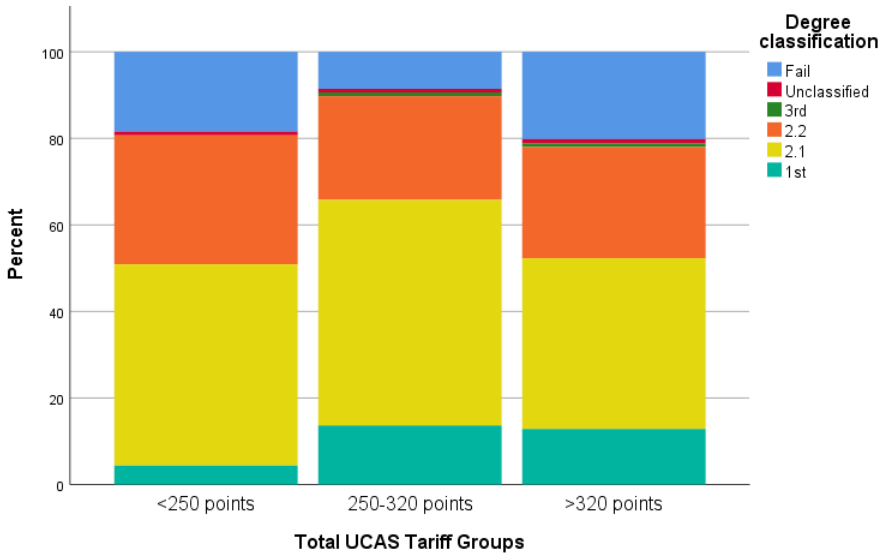


Figure 5.5: Percent of degree classification by Total UCAS tariff group (all Level 3 qualifications).

When each of the qualifications were analysed separately, the association between *Total UCAS Tariff* and degree classification for those that had studied *A-Level* (n=183) was found to be just outside of significance ($\chi^2(8)=14.80$, p=0.063).

As seen in Figure 5.6, the proportion of students obtaining a degree (89.7%) and obtaining a 'good' degree (57.4%) was lowest in the *<220* group and highest in the *>260* group, with 95.5% obtaining a degree and 77.3% obtaining a 'good' degree. Despite the association between degree classification and *Total UCAS Tariff* being just outside significance, the results show a clear trend for A-Level students who enter the course with a higher *Total UCAS Tariff* getting a higher degree class. Furthermore, additional analysis looking at the relationship between *overall degree mark* and *Total UCAS Tariff* for those that obtained a degree and entered the course with A-Levels does show a weak but significant positive relationship (Figure 5.7; r=0.27, p<0.001).

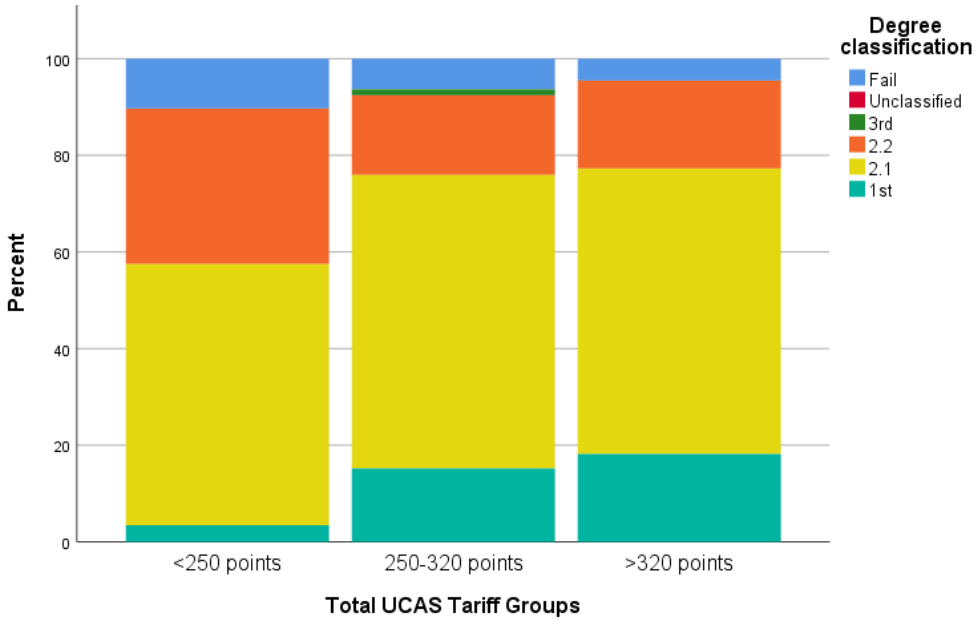


Figure 5.6: Percent of degree classification by Total UCAS tariff group (A-Level only).

There was no significant association between *Total UCAS Tariff* and degree classification for either *BTEC* (n=83) or the *Mixed* (n=68) groups when they were analysed separately (p>0.05). Similar findings (Table 5.3) were observed when the relationship between *overall degree mark* and *Total UCAS Tariff* points was investigated for those with just *BTEC* qualifications (r=0.10, p>0.05) and those with *Mixed* qualifications (r=0.12, p>0.05), no significant relationships being found.

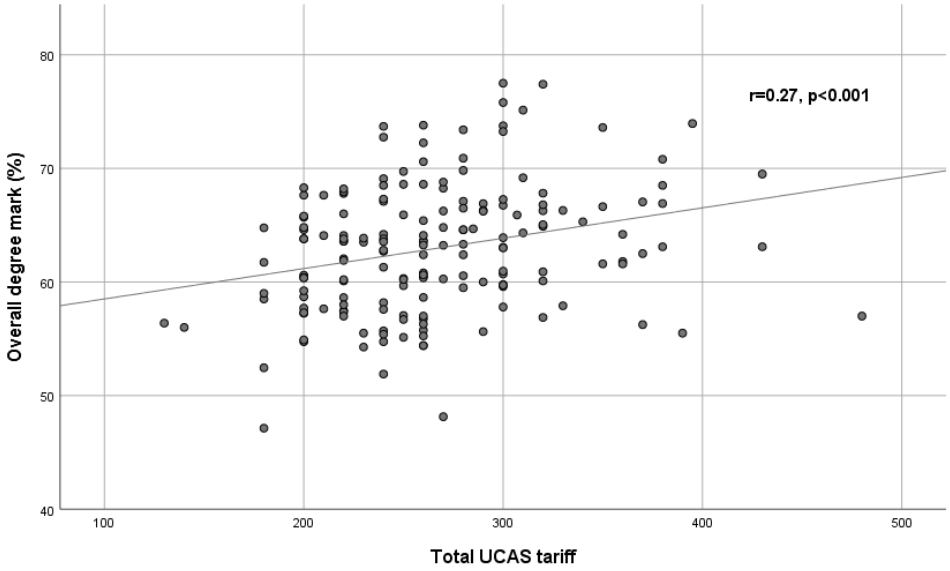


Figure 5.7: Relationship between overall degree mark (%) and Total UCAS Tariff (A-Level only).

Table 5.3: Relationship between overall degree mark (%) and UCAS tariff points for those awarded a degree.

UCAS Tariff category	Correlation coefficient (r)
Total UCAS Tariff	
All qualifications	0.094
A-Level only	0.27**
BTEC only	0.10
Mixed only	0.12
Tariff from 3	
All qualifications	0.089
A-Level only	0.30**
BTEC only	0.16
Mixed only	0.15

*** p<0.001 (n=287 all qualifications; n=172 A-Levels; n=56 BTEC; n=58 mixed).*

The *Tariff from 3* groupings used in the analysis were as follows: *less than 220 (<220), 220-260,* and *over 260 (>260).* As detailed previously, the standard offer for entry to the BSc Sport and Exercise Science course was 240 from 3 A-Levels or equivalent, which is 3 A-Levels C grades, or MMM for BTEC Extended diploma, so would fall within the *220-260* category. A student with BBB at A-Level would have 300 points and be in the *>260* points category, as would a student with DDD in BTEC Extended Diploma as this equates to 320 points. There is a much smaller range of points compared to *Total UCAS Tariff* when only *Tariff from 3* A-Levels or equivalent is considered.

As shown in Figure 5.8 for *Tariff from 3*, the proportion of students that obtained a degree got less as tariff points increased, with 86.5%, 85.6% and 81.5% for *<220, 220-260*, and *>260*, respectively. Obtaining *220-260* points resulted in a greater proportion of students obtaining a 'good' degree (66.6%) compared to both <220 (53.2%) and *>260* (52.4%). When the association between *Tariff from 3* and degree classification was investigated there was a weak but significant association found ($\chi^2(10)=20.28$, $p=0.027$). However, despite this significant association the results suggest that when all qualifications are considered together, having a higher *Tariff from 3* does not necessarily result in a higher degree classification and *220-260* points range is the optimum amount of points. It is important, for the reasons previously outlined, to again consider the Level 3 qualifications separately in the analysis due to the possibility of BTECs being overvalued in terms of UCAS tariff and therefore impacting on the data. Additional analysis of the *overall degree mark* and *Tariff from 3* found this relationship to be not significant (Table 5.3; $r=0.089$, $p>0.05$) indicating no positive linear relationship between *Tariff from 3* and *overall degree mark*.

When each of the qualifications were analysed separately, the *A-Level* ($\chi^2(8)=23.99$, $p=0.002$) and the *Mixed* group ($\chi^2(10)=18.98$, $p=0.041$) resulted in a weak but significant association being found between *Tariff from 3* and degree classification. With the *A-Level* group (Figure 5.9; $n=183$), the proportion of students obtaining a degree was very similar for the *<220* and *220-260* tariff point groups, being 91.5% and 91.4%, respectively. The *>260* tariff point group had the highest proportion of students obtaining a degree (95.8%). There was a clear increase in the proportion of students obtaining a 'good' degree with an increase in tariff points (60.3%, 74.1%, and 83.4%). The relationship between *overall degree mark* and *Tariff from*

3 for those that entered the course with *A-Level*s also revealed a weak but significant positive linear relationship (Figure 5.10; r=0.30, p<0.001).

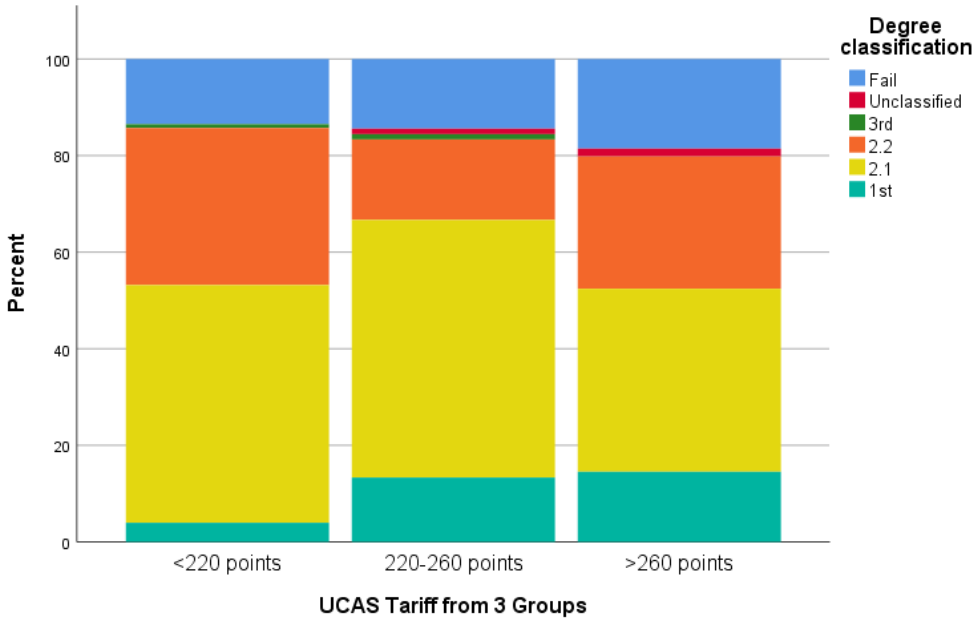


Figure 5.8: Percent of degree classification by Tariff from 3 group (all Level 3 qualifications).

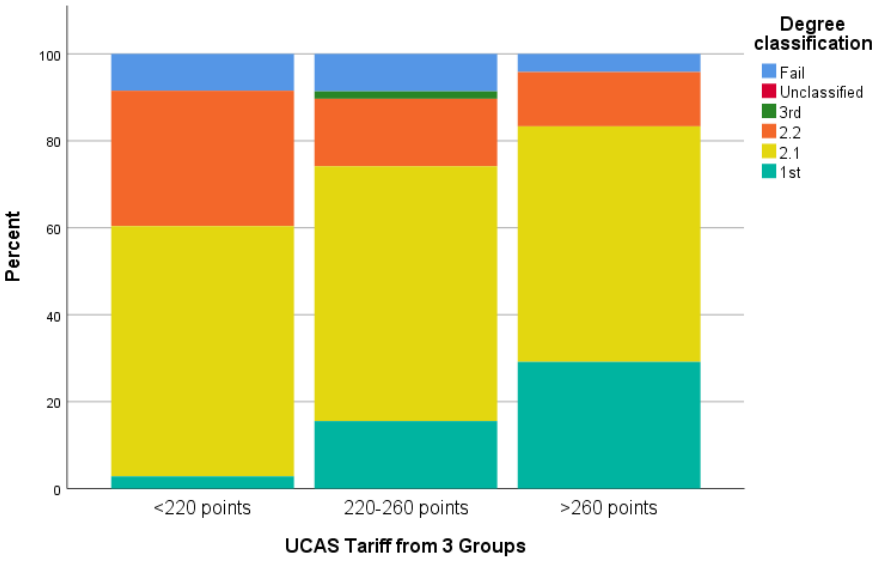


Figure 5.9: Percent of degree classification by Tariff from 3 group (A-Level only).

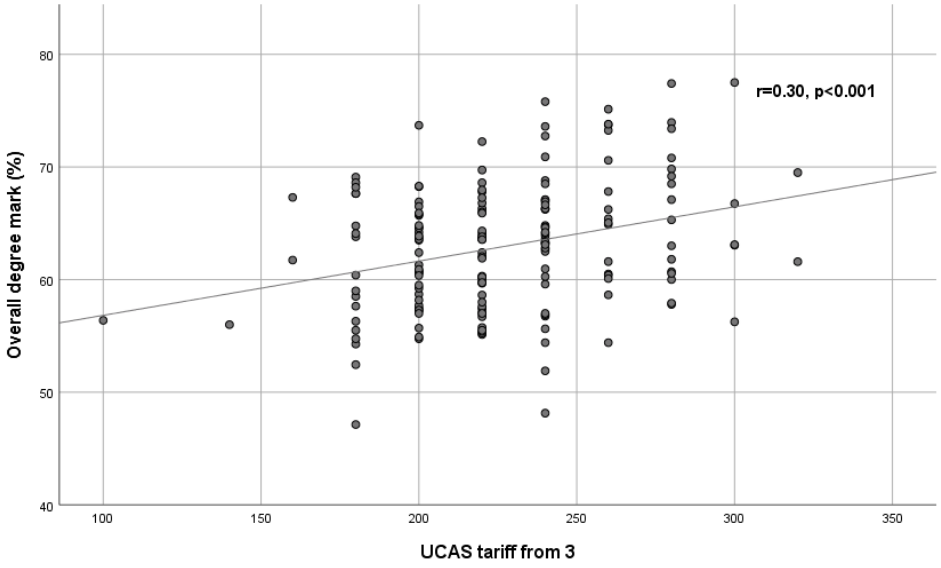


Figure 5.10: Relationship between overall degree mark (%) and UCAS Tariff from 3 (A-Level only).

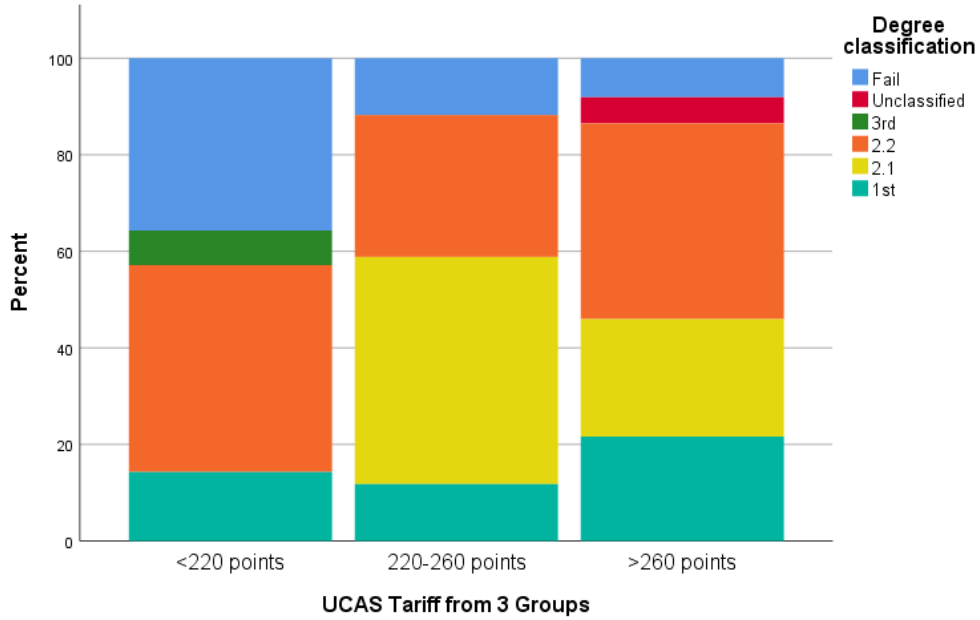


Figure 5.11: Percent of degree classification by Tariff from 3 group (Mixed group only).

For the *Mixed* group (Figure 5.11; n=68), there was a clear increase in the proportion of students obtaining a degree with an increase in tariff points (64.3%, 88.2%, and 91.9%). However, whilst the smallest proportion of students who obtained a 'good' degree was in the *<220* point group (14.3%), the largest proportion came from the *220-260* point group (58.9%). The relationship between *overall degree mark* and *Tariff from 3* for those that entered the course with *Mixed* qualifications did not result in significant positive relationship ($r=0.15$, $p>0.05$). The relationship between *overall degree mark* and *Tariff from 3* for those with *BTEC* (n=83) qualifications was also found to be not significant ($r=0.16$, $p>0.05$).

To summarise, when all Level 3 qualifications are analysed together having a higher UCAS Tariff point total does not necessarily result in higher degree attainment as indicated by degree classification and overall degree mark (%). The middle-tariff group had the largest proportion of 'good' degrees for *Total UCAS Tariff* (250-320) and *Tariff from 3* (220-260). However, when qualifications were analysed separately, results suggest an increase in tariff points does result in higher degree attainment for *A-Level* students, and possibly *Mixed* students, but not for *BTEC* students. The *BTEC* group, who had the highest UCAS tariff points on entry, had lower degree attainment compared to *A-Level* students. This appears to be negating the significant association seen between UCAS tariff points and degree classification when all qualifications are analysed together that is significant when the *A-Level* group are analysed alone. The same is true of the relationship between *overall degree mark* and tariff points. In addition, results also suggest that *Tariff from 3* is a slightly stronger predictor of degree attainment than *Total UCAS tariff.*

5.2.2 A-Level subjects studied

For those students that studied *A-Level*, particular A-Levels there has been the presumption amongst colleagues that particular A-Level subjects are advantageous to the study of Sport and Exercise Science; those subjects are Maths, Biology, Chemistry, Physics, P.E., and Psychology. Biology or P.E being the specified A-Levels required for admission to the course. Analysis showed no significant associations between any of the subjects and degree outcome (Table 5.4; $p>0.05$). Therefore, for those students that studied A-Levels, no particular A-Level is advantageous to the study of Sport and Exercise Science.

Table 5.4: The association between A-Level subjects studied and degree outcome for those students that had studied A-Levels.

A-Level subject	χ^2	P
Maths	0.94	0.91
Biology	3.60	0.46
Chemistry	0.93	0.92
Physics	1.27	0.87
P.E.	0.77	0.94
Psychology	0.21	0.72

df=4 for all subjects (n=188)

5.2.3 Gender

As shown in Figure 5.12, a greater proportion of *females* achieved a 'good' degree (64.9%) compared to *males* (53.1%), as well as obtaining a degree overall (95.9% vs 80.4%). More *males* failed to get a degree compared to *females* (19.6% vs. 4.1%). The association between *gender* and degree classification was found to be on the border of significance ($\chi^2(5)=10.96$, $p=0.052$). However, the small *female* sample size will be considered when interpreting the results of *gender*.

Therefore, *gender* is an important influence on degree attainment despite being just outside of significance. A greater proportion of *females* obtained a degree and got a higher classification compared to *males* despite both genders entering the course with similar Level 3 attainment as indicated by UCAS tariff points. However, more *male* students took BTECs than *females* and this may have resulted in the UCAS tariff points for *males* being inflated to similar levels to that of *females.*

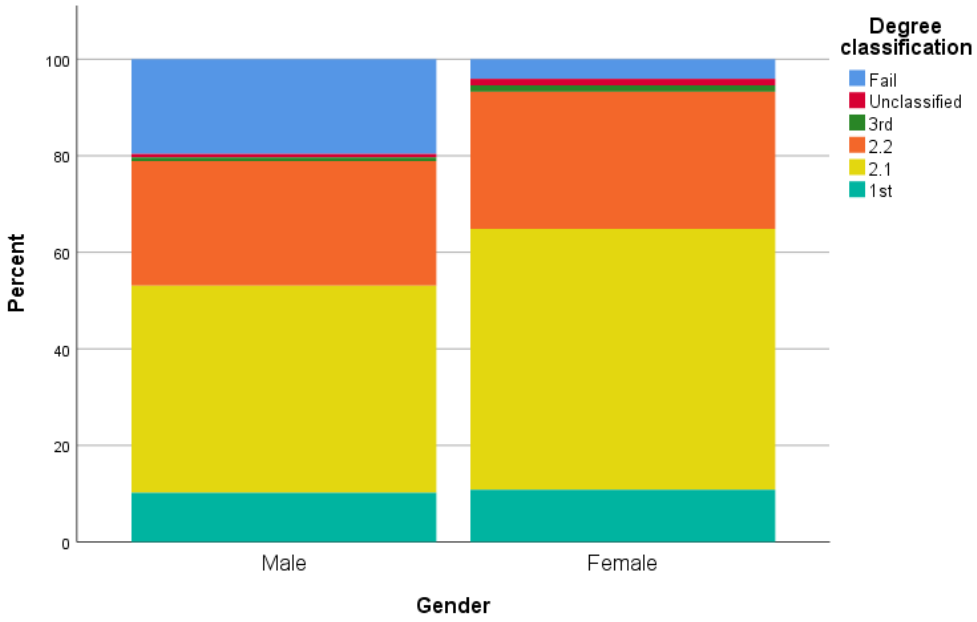


Figure 5.12: Percent of degree classification by gender.

5.2.4 Ethnicity

Figure 5.13 illustrates that a greater proportion of *white* students achieved a 'good' degree (64.8%) compared to *BME* students (41.2%), as well as a degree overall (88.3% vs 76.5%). The highest proportion of those who failed to get a degree were *BME* students (23.5% vs 11.7%). The association between *ethnicity* and degree classification was found to be significant ($\chi^2(5)=25.93$, $p<0.001$).

Therefore, *white* students were more likely to obtain a degree and get a higher classification than *BME* students despite both groups entering the course with similar Level 3 attainment as indicated by UCAS tariff points. However, it must be noted that *white* students were more likely to have studied *A-Levels* and *BME* students more likely to have studied *BTEC*. This reverts to the point I have previously made about the possible non-equivalence of these qualifications to avoid misinterpretation of the findings.

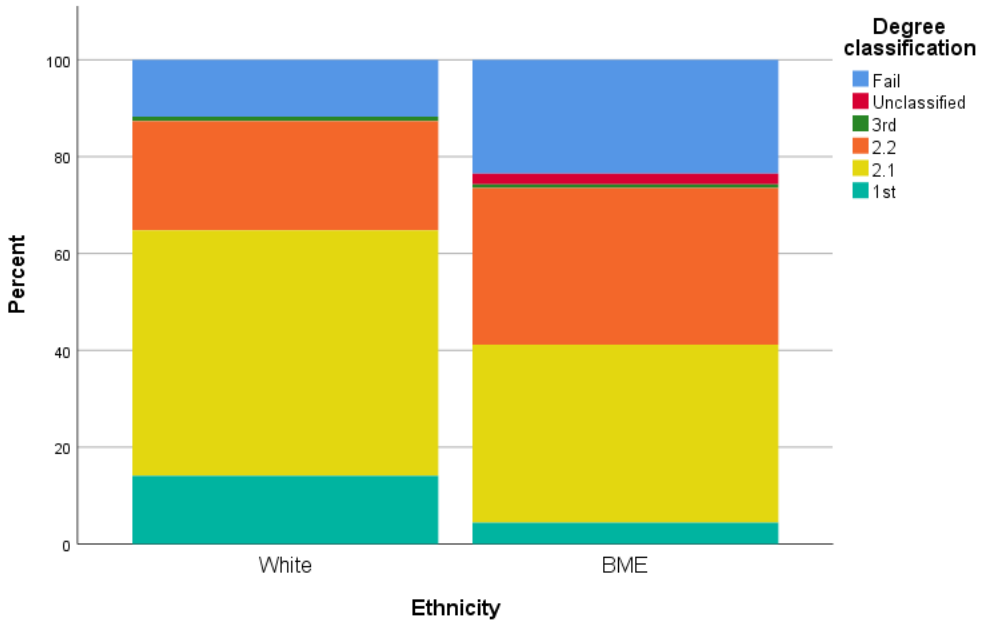


Figure 5.13: Percent degree classification by ethnicity.

5.2.5 SEC representation in higher education

The effect of *SEC representation in HE* on degree attainment is shown in Figure 5.14. A slightly greater proportion of students from the *high representation in HE* group achieved a 'good' degree (58.9%) compared to those in the *under-represented* group (54.6%). Additionally, slightly more students from the *high representation* group obtained a degree overall (86.5% vs 81.5%). The highest proportion of those who failed to get a degree were students in the *under-represented* group (18.5 % vs. 13.5%). As the differences in the proportions between the two groups were small, there was no evidence of a significant association between degree class and *SEC representation in HE* ($\chi^2(5)=3.35$, $p=0.80$).

Despite the *under-represented in HE* students entering the course with a slightly higher Level 3 attainment compared to those that have *high representation in HE*, the *high representation* group seem to have slightly better degree attainment, although this was not significant.

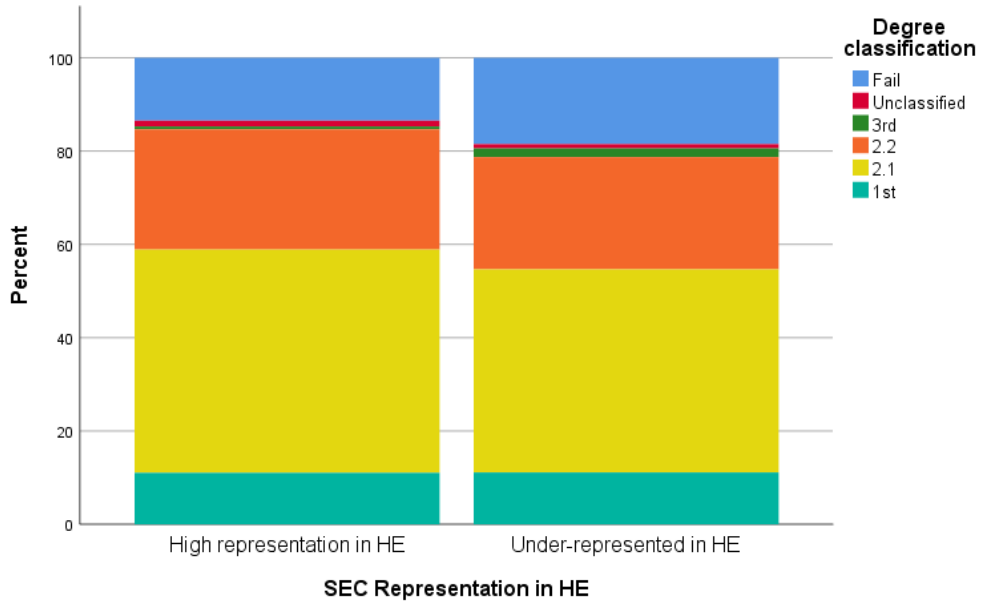


Figure 5.14: Percent of degree classification by SEC representation in HE.

5.2.6 POLAR4 classification

The effect of *POLAR4* classification on degree classification is illustrated in Figure 5.15. The quintile which had the largest proportion of students obtaining a 'good' degree (60.2%) was *Quintile 5* and the lowest proportion were from *Quintile 1* (39.6%). The quintile with the largest proportion of students getting a degree overall was *Quintile 1* (87.5%), with *Quintile 2* being only marginally behind (87.1%), the lowest being from Quintile 3 (78.5%). The highest proportion of those who failed to get a degree at all were students in *Quintile 3* (21.5%) with the other Quintiles having quite similar percentages ranging between 12.5-18.1%. The association between *POLAR4* and degree classification was found to be significant ($\chi^2(20)=35.87$, $p=0.016$).

Despite students from *Quintile 5* entering the course with the lowest Level 3 attainment as indicated by UCAS Tariff points, these students had the largest proportion of 'good' degrees suggesting the higher the quintile the more likely you are to get good degree. It must be noted that the students in *Quintile 5* were more likely to have studied *A-Levels* than *BTECs* and the non-equivalence may be affecting the results. Students from *Quintile 2*, who had the highest points on entry, had the second highest proportion of those

that obtained a degree overall, marginally behind *Quintile 1*. Therefore, although the association between degree classification and *POLAR4* was found to be significant, this association is not very clear and as easy to interpret as other factors considered in the study.

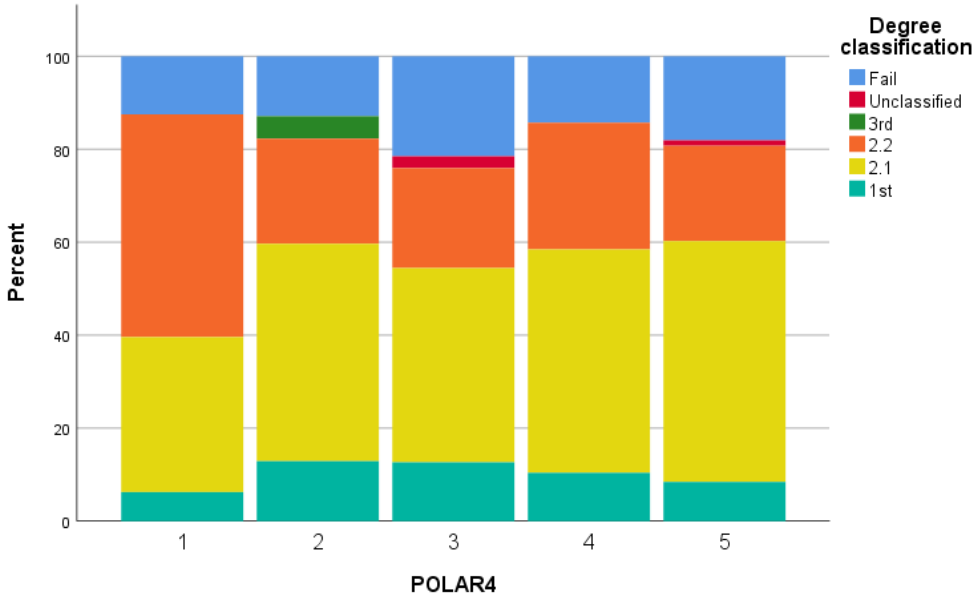


Figure 5.15: Percent of degree classification by POLAR4 quintile.

5.2.7 Interaction between the factors

Further analysis explored interactions between the factors investigated in this study. Of particular interest were some of the factors that were found to have significant associations with degree classification; that is *ethnicity, gender, Level 3 qualification,* and *POLAR4.*

There was a significant association between *ethnicity* and *Level 3 qualification*, ($\chi^2(3) = 20.70$, $p<0.001$) suggesting that the type of qualification studied by a student may be associated with ethnicity (Figure 5.16). *A-Levels* were studied by 62.9% of *white* students, with 17.4% studying *BTEC*, and 16.4% *Mixed* qualifications. However, the proportion of *BME* students who studied *A-Levels* was much lower than *white* students with only 28.7%, most *BME* students opting to study *BTEC* or *Mixed* qualifications, with 55.4% and 48.5% respectively. Results suggest that *white* students are more likely to have studied *A-Levels* than *BME* students; *BME* students were more likely to have studied *BTEC*. Therefore, the effect

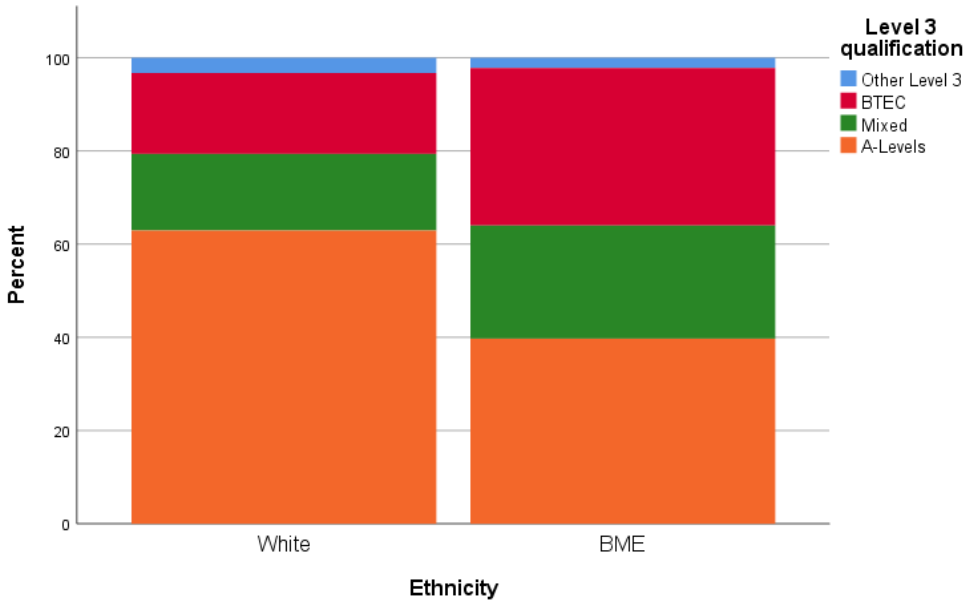


Figure 5.16: Percent of Level 3 qualification by ethnicity.

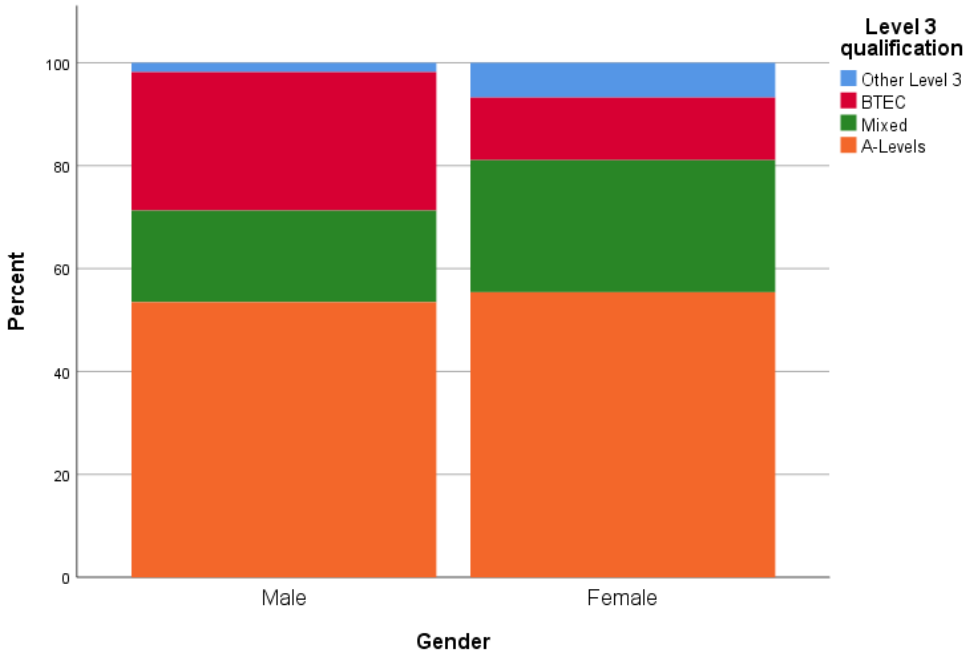


Figure 5.17: Percent of Level 3 qualification by gender.

of ethnicity on degree attainment could be a factor of the type of Level 3 qualification studied by that ethnic group rather than ethnicity itself.

As illustrated in Figure 5.17, there was a significant association between *Level 3 qualification* and *gender* ($\chi^2(3) = 12.18$, $p=0.007$) suggesting that the qualification studied by a student may be related to *gender*. Of the 275 *male* students admitted to the course, 53.5% of these students studied *A-Level* compared to 55.5% of the 74 *females*. *Male* students were more likely to have studied *BTEC* with 26.9% of the students having studied this qualification compared to 12.2% of *female* students. A greater proportion of the *females,* however, were in the *Mixed* group (25.7%) and *Other* Level 3 qualifications (6.8%) compared to males (17.8% mixed; 1.8% other level 3) (Figure 5.14). Results demonstrate that *female* students are more likely to have studied *A-Levels* or a mix of A-Levels and BTECs (*Mixed*) than *male* students; male students were more likely to have studied BTECs. Therefore, the effect of *gender* on degree attainment could be related to the *Level 3 qualification* studied rather than *gender* itself.

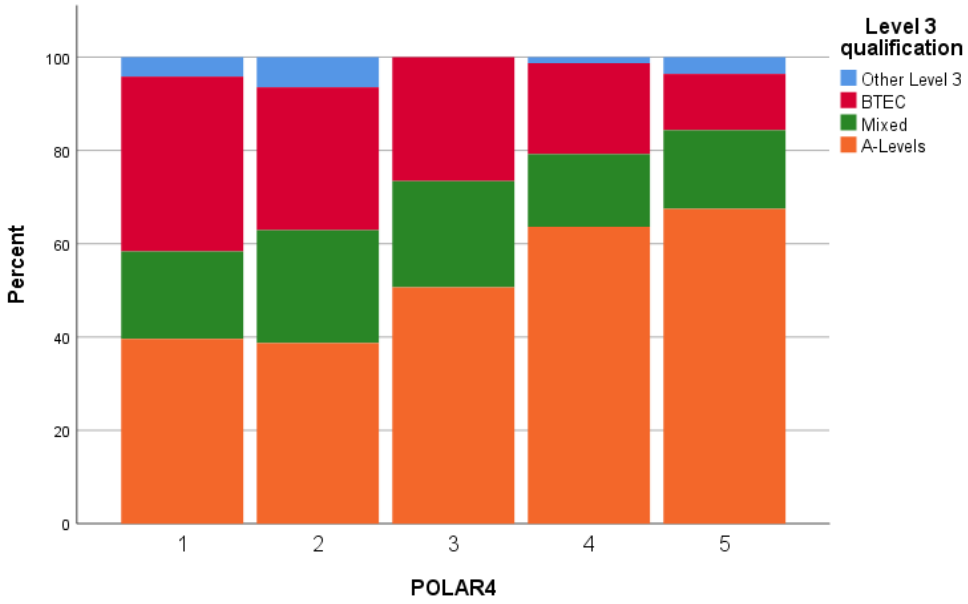


Figure 5.18: Percent of Level 3 qualification by POLAR4 quintile.

There was a significant association, ($\chi^2(12) = 27.73$, $p=0.006$) between *Level 3 qualification* studied and *POLAR4 Quintile*. This could suggest that the *Level 3 qualification* studied by a student is related to which *POLAR4 Quintile* they are from (Figure 5.18). *Quintile 5* had the highest proportion of students who had studied *A-Levels* (67.5%), and *Quintile 2* (38.7%) and *Quintile 1* (39.6%) the lowest. *Quintile 1* had the highest proportion of

students who had studied BTECs (37.5%) with a gradual decrease to *Quintile 5* the lowest (12%). To summarise, students from the higher quintiles are more likely to have studied *A-Levels* and those from the lower quintiles *BTEC*. Therefore, the effect of *POLAR4* classification on degree classification could be related to the *Level 3 qualification* studied rather than *POLAR4* classification itself, the *Level 3 qualification* studied also being determined by which POLAR4 Quintile a student lived in.

Other possible interactions between factors were considered and no significant associations were observed between *POLAR 4* and *gender* ($\chi^2(4) = 5.16$, $p = 0.27$) or ethnicity ($\chi^2(4) = 5.43$, $p = 0.25$). There was no significant association observed between *SEC Representation in HE* and *Level 3 qualification* ($\chi^2(21) = 29.2$, $p = 0.11$) or *ethnicity* ($\chi^2(1) = 2.09$, $p = 0.15$).

Further to the original analysis of the UCAS tariff data using ANOVA to identify differences between *Level 3 qualifications* (Section 1.2.1.1), significant associations were found between *Level 3 qualification* and *Total UCAS Tariff* ($\chi^2(6) = 86.99$, $p < 0.001$) and Tariff *from 3* ($\chi^2(6) = 117.49$, $p < 0.001$) using the UCAS data categorised into the 3 tariff groups.

Independent variables, that is the possible predictors of degree classification, have been analysed as univariates up to now. However, as I have demonstrated there is possible interaction between factors. There remains the question of which of the predictors of degree classification have the strongest explanatory power and which are not relevant once they have been controlled for each of the other factors. This will be addressed during the multinomial logistic regression analysis that follows in section 5.2. Interactions can also be considered as part of the multinomial logistic regression analysis and subsequent model building.

5.2.8 Multinomial logistic regression analysis

A multinomial logistic regression analysis was used to model the relationship between the independent (predictor) variables and membership of three degree classification groups: *2.2, 2.1, 1st,* with *Fail* as the reference group. *Fail* was chosen as the reference group as the other 3 categories were positive degree outcomes whereas *Fail* is a negative outcome. The *unclassified* (n=3) and *3rd class* (n=3) degree classification groups were removed from the analysis due to low numbers. For the same reason, the '*other'* qualification group (n=10) was removed, leaving *A-Level, BTEC and Mixed* groups for analysis.

A parsimonious approach to modelling was adopted throughout, the statistical implication of which was that a simple model was produced that did not include predictors unless they had explanatory benefit. This strategy was implemented by first fitting the model that included all potential predictors (as shown in Table 5.5) and then systematically removing any that didn't helpfully contribute to the model. Although similar to a backward stepwise method, the decision-making process was in the researcher's hands and informed decisions were made about which predictors should be removed (Field 2013:885).

Addition of all of the main predictors to a model that contained only the intercept significantly improved the fit between model and data ($\chi^2(33)=91.90$, Nagelkerke $R^2 = 0.33$, $p<0.001$). As shown in Table 5.5, significant unique contributions were made by *Tariff from 3,* ($\chi^2(6)=23.71$, $p<0.001$) (categorical grouped data was used as in the preliminary analysis in section 5.3.1.3 for consistency), and *Level 3 qualification* ($\chi^2(6)=36.20$, $p<0.001$). *Tariff from 3* was selected for entry to this regression model rather than *Total UCAS Tariff*, since as in the univariate analysis, it was the better predictor of degree classification; including both in the analysis would have been problematic as they are highly correlated and multicollinearity among predictors can lead to inflated standard errors.

Table 5.5: Predictors' unique contributions in the initial multinomial logistic regression model.

Predictor	χ^2	df	p
Level 3 qualification	36.20	6	<0.001**
Gender	7.33	3	0.062
POLAR4	15.05	12	0.239
SEC Representation in HE	0.63	3	0.890
Ethnicity	7.17	3	0.067
Tariff from 3	23.71	6	<0.001**

***p <0.001 (n=259)*

Based on the preliminary analysis, which included the testing of all predictors as univariates, the model outlined in Table 5.5 was reduced. *Level 3 qualification* and *Tariff from 3* remained as they were the strongest predictors. *SEC representation in HE*, followed by *POLAR4*, were removed from the model based due to the lack of statistical significance, being

p=0.890 and p=0.239 respectively. *Gender* and *Ethnicity*, although not significant in this model, were considered important variables to keep in the model as they were just outside of significance (at the 5% level), being p=0.062 and p=0.067 respectively. They may well have been significant with a larger sample size and did add value to the model. Higher sample size allows the researcher to increase the significance level of the findings, since the confidence of the result are likely to increase with a higher sample size. This is to be expected because larger the sample size, the more accurately it is expected to mirror the behaviour of the whole population. Dichotomous gender and ethnicity data is also likely to be more useful in the model than POLAR4 with five categories. Exploratory analysis of possible interactions was then undertaken and any that were significant or just outside significance were tried in the model to see if they improved the model fit. As a result of explanatory analysis of interactions, none were added to the final model which is presented in Table 5.6.

Table 5.6: Predictors' unique contributions in the final multinomial logistic regression model.

Predictor	χ^2	df	p
Level 3 qualification	36.54	6	<0.001**
Tariff from 3	25.04	6	<0.001**
Ethnicity	6.91	3	0.075
Gender	6.90	3	0.075

***=p <0 .01 (n=259)*

The four predictors in the final model where therefore *Level 3 qualification, Tariff from 3, gender* and *ethnicit*y. Addition of these predictors to a model that contained only the intercept significantly improved the fit between model and data ($\chi^2(18)=76.08$, Nagelkerke $R^2=0.28$, $p<0.001$) (Table 5.6). The results show that *Tariff from 3,* $\chi^2(6)=25.04$, $p<0.001$, and *Level 3 qualification* $\chi^2(6)=36.54$, $p<0.001$, both had a significant main effect on obtaining one of the three-degree outcomes compared to failing. The main effect of *gender* (p=0.075) and *ethnicity* (p=0.075) are just outside of significance (at the 5% level) in the final model. The above results show the overall effect; they illustrate which predictors significantly improve the model's ability to predict the outcome category (one of the three-degree classifications), but not specifically which categories they help predict. The individual parameter estimates (Table 5.7) do this and will now be detailed.

Table 5.7: Individual parameter estimates for the final multinomial logistic regression model.

		B	SE	95% CI for Odds Ratio		
				Odds	Lower	Upper
	2.2 Intercept	1.707**	0.647			
	2.1 Intercept	2.725**	0.605			
	1st Intercept	2.294**	0.708			
Level 3 Qualification (vs. A-Levels)	2.2 BTEC	-1.892**	0.665	0.151	0.041	0.555
	2.2 Mixed	-0.533	0.605	0.587	0.179	1.919
	2.1 BTEC	-2.021**	0.592	0.132	0.042	0.423
	2.1 Mixed	-1.799**	0.603	0.165	0.051	0.539
	1st BTEC	-4.397**	1.204	0.012	0.001	0.130
	1st Mixed	-0.891	0.695	0.410	0.105	1.604
Tariff from 3 (vs. >260)	2.2 <220	-0.434	0.634	0.648	0.187	2.243
	2.2 220-260	-1.443*	0.631	0.236	0.069	0.813
	2.1 <220	-0.930	0.614	0.394	0.118	1.313
	2.1 220-260	-0.618	0.551	0.539	0.183	1.586
	1st <220	-2.795**	0.844	0.061	0.012	0.319
	1st 220-260	-1.401*	0.685	0.246	0.064	0.944
Gender (vs. Male)	2.2 Female	1.488	0.821	4.430	0.886	22.152
	2.1 Female	1.700*	0.792	5.471	1.159	25.835
	1st Female	1.167	0.893	3.213	0.558	18.486
Ethnicity (vs. White)	2.2 BME	-0.266	0.437	0.766	0.325	1.803
	2.1 BME	-0.712	0.407	0.491	0.221	1.090
	1st BME	-1.364**	0.630	0.256	0.074	0.878

**=p<0.05, **=p <0 .01; reference degree category is Fail; reference group for each predictor category is shown in brackets; (n=259),* $\chi^2(18) = 76.08$*, Nagelkerke* $R^2 = 0.28$*, p<0.001.*

The individual parameter estimates (Table 5.7) are a break-down of the individual effects. *Fail* is the reference category (or outcome) that each of the three-degree classification outcomes (*1st, 2.1, 2.2*) is always compared to. In Table 5.7, B represents the (additive) change in the logarithm of the odds of a student achieving one of the three-degree classification outcomes

(*1st, 2.1, 2.2*). However, it is more usual for this sort of model to comment on the effects in terms of the odds ratios, which are the exponential of the B estimates, and indicate the (multiplicative) effect on the odds of a student achieving one of the three-degree classification outcomes (*1st, 2.1, 2.2*). If the odds ratio is greater than 1, for example 3.213 for *females* obtaining a *1st*, then *females* are more likely to obtain a *1st* than *males*. This is interpreted as the odds of a f*emale* student obtaining a *1st* are 3.213 times the odds of a *male* student obtaining a *1st*, with all other factors the same for both students (*Level 3 qualifications, Tariff from 3* and *ethnicity*). No odds ratio is shown for *males* as their odds ratio is simply 1/3.213 if we wished to compare them to *females*. If the odds ratio is less than 1, for example 0.256 for a *BME* student obtaining a *1st*, the interpretation is that a *BME* student is less likely to achieve as *1st* than a *white* student (since the *white ethnicity* group is the reference category for this variable). The 95% confidence interval for the odds ratio is provided. These provide a range of values that the true odds ratios could be in the wider population. For example, for *females* obtaining a *1st*, the confidence interval for the odds ratio is from 0.558 to 18.486 which suggests a very wide possible range and suggest a lot of uncertainty in the true effect of *gender* on the odds of a *1st*. The fact that the interval also includes 1 as a possible true value, suggests that there may in fact be no effect of *gender* on the odds of a *1st*. The lower level is only just below 1 however, which is consistent with the borderline non-significant result for *gender* discussed earlier.

Table 5.7 is separated into each of the 4 predictors that contributed to the final regression model: *Level 3 qualification, Tariff from 3, gender*, and *ethnicity.* Each of these predictors will now be described.

As indicated by the parameter estimates for Level 3 qualification (Table 5.7), odds ratios below 1 indicate that BTEC and Mixed students are less likely to achieve a degree classification (1st, 2.1, 2.2) in comparison to *A-Le*vel students (the reference category). Having a *BTEC* significantly predicted whether a student obtained *a 2.2, 2.1*, and *1st* compared to a *Fail*. As *A-Level* is the reference category, this is the effect of *BTEC* compared to *A-Level*. The odds of *BTEC* student getting a *2.2* is 0.151 times that for an *A-Level* student, which is perhaps better expressed as the odds of an *A-Level* student getting a 2.2 is ~6.6 (1/0.151) times that for a *BTEC* student. This increases to ~7.6 times that for a *2.1* and increases hugely to ~83 times that for a *1st.* It must be noted though that the CI of the odds ratio for a *1st* is large and therefore this could be as low as 7.7 (1/0.13) but does show

clearly that there is a big effect occurring here. Having *Mixed* qualifications only significantly predicted whether a student obtained a *2.1* compared to a *Fail*. The odds of an *A-Level* student getting a *2.1* is ~6 times that for a *Mixed* student.

As shown by the individual parameter estimates for *Tariff from 3* (Table 5.7), odds ratio values below 1 indicate that having lower tariff points (*<220* and *220-260*) had a negative effect on degree outcomes compared to having higher tariff points (*>260;* the reference category). The odds of a student with *<220* and *220-260* points being less than student with *>260* points for obtaining any classification of degree. For example, the odds of a student with *>260* points getting a 1st class degree is over 16 times that for a student with *<220* points, and 4 times that for a student with *220-260* points.

When looking at individual parameter estimates for *gender* (Table 5.7), the odds ratio values are greater than 1 which indicates that being *female* has a positive effect on obtaining a degree classification in comparison to *males*. However, being *female* only significantly predicted whether a student obtained a *2.1* compared to a *Fail*; the odds of a *female* getting a *2.1* classification being ~5.5 times that of a *male.*

The individual parameter estimates for *ethnicity* show that the odds ratio values are less than 1 indicating that being a *BME* student has a negative effect on obtaining a degree classification in comparison to a *white* student. However, being of a *BME ethnicity* only significantly predicted whether a student obtained a *1st* compared to a *Fail*; the odds of a *white* student obtaining a *1st* compared to failing is ~3.9 that of a *BME* student.

5.3 Summary

Univariate analysis has revealed several factors that have a significant association with degree classification. Those being *Level 3 qualification, Tariff from 3, ethnicity, and POLAR4*, with *gender* being on the border of significance.

Level 3 qualification has a significant association with degree class. Despite entering the course with the lowest UCAS tariff points, *A-Level* students were more likely to obtain a higher degree classification, with *BTEC* students being the least likely. In terms of UCAS Tariff points, only *Tariff from 3* had a significant association with degree classification, *Total UCAS Tariff* did not. When qualifications were analysed separately there was a significant positive

association between UCAS *Tariff from 3* and obtaining a 'good' degree classification and % mark when only *A-Level* students were considered.

Because the *BTEC* and *Mixed* groups had higher UCAS tariff points on entry compared to *A-Level* students, this may be negating the association seen between UCAS tariff points and degree outcome when all qualifications are considered together. When all qualifications are considered together both *Total UCAS Tariff* and *Tariff from 3* resulted in the mid-point groups obtaining the largest proportions of 'good' degrees (*220-260 Tariff from 3; 250-320 Total UCAS Tariff*) rather than the highest points group (*>260 Tariff from 3; >320 Total UCAS Tariff*). However, when A-Levels analysed on their own, this effect was not seen, and the highest points groups did achieve the largest proportions of good degrees.

For those students that studied A-Levels, the study of Biology, P.E, Maths, Chemistry, Physics, and Psychology were found not to be advantageous to degree classification.

Gender and *ethnicity* both appear to have an effect on degree attainment although gender was just outside of significance. The proportion of *females* obtaining a degree and 'good' degree was slightly higher than for *males,* and there was a greater proportion of *white* students obtaining a degree and 'good' degree compared to *BME* students. The effect of *SEC representation in HE* did not significantly affect degree classification, however *POLAR4* classification did. Results illustrated that students in *Quintile 5* had a greater proportion of 'good' degrees, and *Quintile 1* the lowest.

Interaction between these factors was also investigated. Results suggest that *white* students are more likely to have studied *A-Levels*, and *BME* students were more likely to have studied *BTEC*. Therefore, the effect of ethnicity on degree attainment could be a factor of the *Level 3 qualification* studied by that ethnic group rather than ethnicity itself. In addition, *female* students are more likely to have *studied A-Levels* and *male* students were more likely to have studied *BTEC*. Therefore, the effect of *gender* on degree attainment could be related to the *Level 3 qualification* studied by that *gender* rather than *gender* itself. Results also suggest that the type of qualification studied by a student is dependent upon which *POLAR4* Quintile they are from. *A-Level* students were more likely to come from the higher Quintiles and *BTEC* students the lower. Therefore, the effect of *POLAR4* classification on degree classification could be related to the *Level 3 qualification* they studied rather than *POLAR4* classification itself.

Furthermore, the *Level 3 qualification* they chose to study also being influenced by which *POLAR4* Quintile they lived in.

A multinomial logistic regression was performed to model the relationship between the predictors and membership in the three-degree classification groups: *2.2, 2.1, 1st*. When taking all other factors into account, only *Level 3 qualification* and *Tariff from 3* remained significant, with *gender* and *ethnicity* being just outside significance. A reduced regression model was produced using these 4 factors to predict degree classification. *POLAR 4* was highly insignificant and therefore not included in the final regression model and no interactions were included either. The model predicts that *A-Level* students, and those with a higher *Tariff from 3* (*>260*) are more likely to obtain one of the three-degree outcomes (*1st, 2.1, 2.2*) than *BTEC* and *Mixed* students and those with a lower *Tariff from 3*. *Gender* and *ethnicity* also had some impact on degree outcomes, the model predicting that *females* and *white* students are more likely to obtain one of the three-degree outcomes than *males* and *BME* students.

This quantitative data analysis chapter has provided a statistical understanding of 'what' factors affect degree attainment. The qualitative analysis of interview data that follows in the next chapter (Chapter 6) will explore the 'why'; the qualitative data extending the quantitative data obtained by providing a context to try and make sense of it and therefore contribute to the understanding of the statistical findings.

6 Interview analysis

6.1 Introduction

Following the statistical analysis of the cohort data in Chapter 5, I now move on to the analysis of student interview data. Whereas the analysis of cohort data gives some insights into entry, progress and attainment patterns and hints at some of the causes, this chapter aims to build understanding of why these differences occur. My analysis has been informed by Bourdieu's theory of practice, in particular how the ideas of habitus and capital can help to explain differential degree attainment. Of particular importance are the different qualification routes that students took on route to university.

This chapter begins by discussing the students' family habitus and capital, their secondary school careers, and post-16 qualification routes. This proceeds to the students' views and perspectives of their early university experience, and includes both academic aspects (teaching, learning, assessment, and support) as well as the social aspects and independent living. Exploring how the students adjusted to the new ways of learning and assessment, as well as other challenges related to their transition into university life, will contribute to a more nuanced understanding of differential student outcomes.

Table 4.1 should be used as a reference point for the participant characteristics during the following analysis.

6.2 Family capital and habitus

Bourdieu explained how academic success is related to the amount and type of cultural capital inherited from the family milieu, rather than by individually owned talent or intelligence (Bourdieu 1986). It was important, therefore, to gain an insight into each student's family structure, the experience of higher education (HE) within the family, the importance of education, the family economic capital and examples of exchange to cultural capital.

6.2.1 Experience of HE within family and the importance of education

Four of the students had one or both parents who had been to university: Ayesha, Isaac, Kate, and Poppy. Both Isaac and Kate's parents travelled to the UK for their education which suggests they particularly valued UK HE.

Of the five remaining students, three had siblings who had been to university. For example, Isla, Roberto, and Chloe had sisters who were currently at university or had just graduated. Having family members who have experienced or are currently in HE is a form of cultural capital. Parents with some knowledge of HE are more likely to be able to advise and support their child through the entire process, starting from the point of application, and this offers an advantage to students. Of the two remaining students, Charlotte's grandmother had done an Open University degree later in life and had cousins who were at or had been to university, and Jacob had wider family members who had been to university.

All of the students reported that education was valued in the family, though precisely what was valued was not always clear. Some recalled how they were encouraged to do well at school in terms of measurable outputs: grades and qualifications. Others had more practical parental encouragement and support, for example with homework:

> …Like they helped with homework. They always tried to encourage it, like I'd get home and have to do my homework for that day so I didn't become like, left behind. They weren't too strict, but then again, they, they were very encouraging and supportive (Chloe).

Homework support is a means of passing on cultural capital. Isla's support was stricter and more motivated by a concern for her future independence and self-determination. This wasn't always a positive experience, for example at parent's evenings:

> She wanted us to do well. I think because of the position she was put in of being a single mum that is, you have to be able to support yourself. Can't let a man do it for you…Had parents evening and she had our reports printed off and she'd say…Oh, it was horrible going to parents evening. She'd go to a teacher, 'so Isla's predicted an A, why is she not there?' I'd be there, 'no please don't'. That was me. I'm chatty, or something like that. She was quite…Um, ah, she pushed us. She wanted us to do well. If we did a homework that was not our best handwriting, she'd just rip up the page. 'Do it again. You've not tried your hardest!' (Isla).

This strong external motivation from mum is not easy to replicate in the more independent environment of a university programme. Contrast this with Jacob's (BME student who did a BTEC) experience of support which was less focused on obtaining qualifications and very much about empowering him to make positive choices:

> …they just wanted to know that if when they kind of let me to go out into the world, I was going to be someone that understood how people felt and had compassion and that was more important. But it didn't mean that they just left school. It was more like they wanted me to do my best at school, but if I failed something they'd ask me, did I revise hard enough? For example, if I said no, then they go, well you know you need to do that next time. It was never, I felt scared to tell them that I failed something, but they were always just happy that I did my best in anything really (Jacob).

Many members of Jacob's wider family had studied to be teachers as there were few opportunities for good jobs in the Caribbean. So, for Jacob, education as a career pathway was important to his family and he was encouraged to do well throughout school. However, character education was equally important, and his parents made sure he had the opportunities to gain this too.

6.2.2 Family contexts

The family milieu shapes the students' habitus and so the structure of the family and occupations of the parents give insights into the formation of those habituses. Four of the students' parents had separated. In all cases they were living with their mother and siblings and usually had regular contact with their fathers. These experiences can be quite disruptive. For example, Poppy explained how the separation of her parents resulted in frequent house moves because of her Mum's job and included a period where she lived overseas with her dad:

> When I was growing up, it was quite difficult 'cause I was moving houses a lot and my parents are separated as well. So my dad, he works in the Middle East and stuff and then my mum's obviously with me and we just moved a lot because of my mum's job. And then there was a point in time I'd moved too, with my dad for two years in Qatar. And then I usually after two years I came back to England and then we moved a lot as well. So the only stable bit was secondary school, like there was the same school I went to (Poppy).

For Poppy, school was a place of stability, although the upheaval must have had some impact on her as a learner. Living in Qatar will have enabled her to develop cultural awareness (embodied cultural capital), independence, and resilience.

Roberto described a difficult but happy upbringing in a single-parent family with his mum and siblings:

> …my mum and dad was separated when I was 5. Of my siblings, only me and my older sister have the same father. My other siblings have different fathers. So they split early and then it was just kind of like... Everything was just kind of a bit strained because I would have to go and visit my dad. My mum didn't kind of like that idea because they weren't on good terms. They are still not on good terms to this day so it's still not easy. And like just growing up with siblings and being one of the oldest it's just hard I guess 'cause you kind of have to like take a lot of responsibility to do things. And I don't know, there's kind of like all these other pressures on you so essentially you have to sacrifice a lot for them as well. So you kind of lose that aspect of your childhood 'cause you have to like mature really quickly to be there for them, especially with a single mother. So it was...but at the same time it was good because my mum, she done everything for us. She's made sure that everything, you know, you didn't have much but you had a good time. Life was easy, but at the same time it was slightly difficult (Roberto).

Roberto carried a lot of extra responsibility in school. Whilst this will have impacted his upbringing it will also have helped to develop him as a responsible, mature, independent, and determined young adult and these traits, as part of Roberto's habitus, would stand him in good stead when going to university.

Ayesha and Isaac appear to have had more 'traditional' family upbringing in nuclear families. Isaac described a happy childhood with his father who is of Ghanaian heritage and German mother. Chloe also described an enjoyable family life which was less traditional than some of the other students interviewed:

> So my parents are foster carers. So ever since I was, I think about one or two, they've been foster carers. [I've] always grown up with different children in the house. They fostered probably between the age of new-born and about seven. So these children would stay with us like short term, maybe two weeks, up to 10 years, which was my brother who we adopted. So I've grown up with lots of children in the house, always changing, living with us 24-7, which I really enjoyed (Chloe).

This home life would have had a significant impact on Chloe's development. Whilst she would have shared her home, possessions, and family with children she didn't know, she might well have also 'inherited' person-centred, empathetic values. It's unsurprising that Chloe had previously considered a career in social work. She would probably value the social aspects of learning and be good at supporting her peers.

Kate had lived in several countries during her childhood:

> I grew up in a good household with both parents together. I have a big family. They are all spread out all around the world. So I have... I'm born in Ghana. And I moved to the UK when I was like 5 and then UK [again] since I was like 12ish, 13. And then we live in Saudi right now. Saudi Arabia. Yeah, we are there. But then we have, all of our family is mostly in Ghana (Kate).

Kate's Ghanaian parents are both teachers so educational values would be central to the family habitus; she would have what Bourdieu called 'a feel for the game'. Kate's parents lived and worked in Saudi but made the decision that she should return to England after her GCSEs to attend a boarding school for her A-Levels. So, the family exchanged economic capital for high-status educational qualifications (a form of cultural capital). Furthermore, this education pathway developed the independence needed for successful transition to university. I continue to explore this idea of exchange in the next section.

6.2.3 Mobilisation of economic capital

Students' economic capital will, at this point in their lives, be closely related to that of their parents. Some will have more and others less, but not all families deploy or exchange that capital (e.g. economic for cultural) in the ways that Kate's educator parents did to support educational development. Another example of capital conversion – particularly for the professional middle classes - is house buying in preferred catchment areas, as in Charlotte's case:

> So we moved house like probably three times before I came to university because to get into like catchment schools and stuff…So I wanted to go to that school because the primary school I went to, I made all my friends there and they all lived like in the catchment area so that's why we moved so I could get into the secondary school because I wanted to be with my friends. And it was ranked the best school in [borough name]. I went to [town name] school, and that was, at the time, it was ranked number one (Charlotte).

Charlotte suggests it was because she wanted to move due to friendships, but it's likely that her parents' motivation was to maximise future educational potential. This strategy (move for 'good' schools) is a variant on private schooling (pay for 'good' schools). Both include an exchange of economic capital for cultural capital in the form of educational qualifications though the prioritisation of social capital acquisition in these strategies varies. As we have seen, Kate went to a boarding school to do her A-Levels, but there are similar examples of exchange in the use of private tuition: Kate for the 11 plus and Poppy for maths and science:

> I wanted to know how to learn the harder stuff, they didn't really teach me 'cause they were thinking, Oh we're going to aim for you to get a C grade. So that's why I decided to get a tutor cause I wanted to know the harder stuff as well cause I knew that I wasn't a C grade (Poppy).

Parents funding sports and activities taken outside of the normal free school activities is another example of economic to cultural capital conversion; for example, Chloe's gymnastics and horse riding, Charlotte's dancing, Poppy attending drama school, and Isaac having piano lessons. These activities, along with other hobbies and interests, would have been useful resources for the acquisition of cultural capital for the students and will be detailed in the next section.

6.3 Other cultural resources

Cultural capital is not only acquired in the family and this section broadens the scope to include other sources of capital building. These include sport and physical activity as well as hobbies and other interests, the former of which are highly pertinent to the degree programme under investigation.

6.3.1 Sport and physical activity

Sport and other physical activities were the main interests and hobbies of all the students interviewed and have contributed significantly to the cultural and social capital of these students.

Students tended to be involved with either team or individual sports and activities. Success in individual sports such as dance, swimming and gymnastics depends on the personal motivation of the athlete. Those who excel at individual sports often find satisfaction in pushing themselves to achieve personal goals rather than relying on the team-mates. Self-reliance and personal accountability are critical for success. In team sports, success or failure in competition depends on many variables but most importantly team sports promote the virtue of working together thereby avoiding sole responsible for underachievement. Such traits as part of the transferable dispositions of the habitus, could be relevant to understanding student's academic outcomes.

Five students undertook sport and activities classed as individuals and all of them were females: Isla, Poppy, Charlotte, Chloe, and Ayesha:

> My hobbies were sports. So outside of school I was part of the local Tae Kwon Do team that competed regularly. So I was on the

> first team which provide opportunities to go for England trials, go to different tournaments. I was also part of swimming, so I swam for the borough (Ayesha).

Chloe's main sporting interest was gymnastics which she started from an early age, though she also engaged in other individual sports:

> I've done gymnastics since I was probably two or three. Throughout secondary school I used to do it just the beginning of like halfway between primary school and secondary school. I only did it for like one or two hours a week in the sports hall with this private coach. And then I moved on to an actual gym place and I did that since I was probably year eight until A-Levels. I think I trained about three to four hours a week, but it was, it was very consistent and obviously I really enjoyed it (Chloe).

Isla had been involved in dance from an early age but also swam. After giving up swimming, dance became her main activity. Charlotte was also a competitive dancer. Interestingly, Chloe, Isla, and Charlotte all started their activities at age two or three so it would have been a parental decision. This commitment of resources (time and money) to developing these skills reflects the family habitus, as does the form of sport. Types of dance or sport are ultimately cultured choices.

Poppy's main sporting activity was athletics. Her mum had made her give this up whilst she was doing her A-Levels in order to concentrate on her studies. Poppy reports that this had a negative effect on her mental health, and might have been counterproductive:

> Like it [athletics] was just like more stress relieving and there's like a time for me to escape and just not think about A-Levels but it just after a while just like it just was like breaking me down like mentally (Poppy).

It is widely (Stubbs et al. 2018) accepted that physical activity has positive impacts on mental wellbeing. It can improve mood, decrease the chance of depression and anxiety and lead to a better and more balanced lifestyle. Poppy has since taken up athletics at university, and athletics has become very important to her, helping her to improve her confidence:

> … I think it was when I was pushed to do a competition this year. 'Cause I went to do, I didn't even want to compete cause I was like, I'm not ready. I don't want to do anything. I just want to train this year. But my coach and other like athletes, it's just like, you know, you should just do it, just get a time down. And yeah, I was really like proud of myself to actually compete for the first time in a long time. So that, that was really, that was really like, I don't know, a defining moment cause it really changed me a lot. I was like, I was like, okay, if I can do this, then It's not as hard as like I thought it was going to be not as precious as I

> thought it was going to be, so I can do other things as well. So I think that was really a turning point (Poppy).

The recognition that "I can do other things as well" is a good example of the how the dispositions of Poppy's sporting habitus could have transferable benefits, for example to her undergraduate studies.

The male participants reported preferring team sports. Isaac, for example, mainly focused on football and basketball and is a qualified referee for both. This utilises the communication, people and leadership skills, which are dispositions (habitus) that he had developed/demonstrated as Head Boy at school. Roberto, another leader, was captain of the school football team.

Kate was the only female participant whose main interest was team sport: basketball. The strength of the women's game at Coventry was one of the things that attracted her, this was a place where she would fit in.

The sporting activities that the students have engaged with will have shaped, and been shaped by, their habitus. Different sports are associated with various kinds of traits and dispositions and, according to the transferability inherent in the notion of habitus, these may shape study habits and academic performance. Some dispositions are common across all sports and so would in varying degrees be part of the habitus of all these participants, for example learning through repetition, coachability, strategy, problem solving, communication and self-discipline.

6.3.2 Other hobbies and interests

Sport and other physical activity were the main interest of the participants outside of their formal education but there were a few other pastimes that evidence the cultural capital of the families/students.

Isaac had piano lessons whilst growing up. Poppy has been to drama school, but this appeared to be due to her mum making her do it to increase her confidence and she gave the impression that she didn't enjoy it:

> My mum put me through drama school and stuff like that and I didn't really like it 'cause she thinks, oh maybe if she does like all these like drama courses and stuff she would be more outgoing. But I just didn't, I didn't like it. I didn't really like singing anymore (Poppy).

Another way this group of students acquired cultural was via educational and cultural activities and visits. For example, Isaac detailed a biology field trip

and a trip linked to him being on the school council:

> I went to the houses of parliament being with the student council. We also went on a biology trip for A-Level biology. We went to Epping Forest to look at different things (Isaac).

There is a distinction between aspects of their study programmes and those activities that are voluntary and intended to build their profile and gain other experience. Ayesha, for example, described her experience of the National Citizen Service (NCS):

> …I did [a] one month volunteering expedition in Cambodia. So some people from my school went. So like one teacher, a few of us. It was self-funded. So you paid...you had to raise money to pay for your trip. You'd go there for a whole month. So I was 16 at the time. I spent a month there where we just worked in group projects with another school from the UK. So that alone separates me from other people who may have done something just like Duke of Edinburgh. Like I did Duke of Edinburgh, but I also did this (Ayesha).

The fact that Ayesha mentions doing NCS "separates her from other people" suggests her motivations for getting involved may have been more to enhance her CV and put her ahead of many other young people who had done the more common Duke of Edinburgh scheme. She explained more about the benefits of the scheme:

> So it's in the summer period for people age 16 to 17. You spend a few weeks there and you do different stuff. You meet new people, you do group projects. So it's a good thing that other people like opportunities to look for. Especially workplaces like, Oh you've worked in groups 'cause it does give you certain life skills that you won't get from like learning in school. But I opted to do the one month thing in Cambodia because I was like, Oh, it's different. In some way I'm actually giving back to people. Whereas that's more like you're doing it for yourself, kind of. You're not really gaining much. I was like, I'm doing this to other people. Yeah, I've got stuff out of it. Working with teams, meeting new people, learning stuff I wouldn't have learned elsewhere (Ayesha).

This is clearly a strategy for building cultural and social capital. Such thinking doesn't just appear but would have been acquired in her family and their desire for her to be an independent global citizen:

> Especially cause I wasn't with my parents. So at the age of 16 I went across the world to do stuff. I have to be independent, how to like take care of my belongings. We went with really limited stuff. I had to do my own washing by hand. We lived in like literally the rural areas. So it was a very different to what I'm used to (Ayesha).

Ayesha is adventurous, independent, and self-reliant, dispositions of her habitus which would have stood her in good stead for transitioning to university.

Roberto reported little opportunity to acquire additional cultural capital in his childhood:

> …my mum had to work a reasonable amount so she was always pre-occupied with working. And when she wasn't working she was just kind of tired I guess. So she just wanted to kind of relax. So if there was something that we were going to do we would just be like you would go and do it with friends or something like that. But in terms of like doing something together as a family, not really too much (Roberto).

He and Isla don't seem to have had family holidays. All the other students enjoyed family holidays whilst growing up. The families' economic capital was converted into annual opportunities to experience different cultures and traditions thereby enriching the participants' cultural resources.

6.4 Secondary school and post-16 education

Although the early development of the habitus is strongly framed by the family, schooling increasingly adds to this process of habitus building and cultural capital acquisition. For example, institutionalised cultural capital in the form of educational credentials and qualifications are acquired in school. These, together with study dispositions of students' habitus are key to transition into HE. This section will therefore focus on the students' general secondary and post-16 educational experience, their experiences of studying Level 3 qualifications, and their perceptions of how those qualifications prepared them for their university studies. The students' motivations for wanting to go to university will also be considered.

6.4.1 The students' educational experience

Kate was one of two students who been schooled overseas, the other being Poppy but this was during her primary schooling. Kate, who appeared to have enjoyed school, started her secondary education at an all-girl grammar school, before moving with her parents to Saudi:

> My first secondary school was an all-girl school, grammar school. Very supportive. I enjoyed it a lot. Yeah, teachers were good. Friends were good. I have got lifelong friends from that school. Then I moved to Saudi, and I went to an international school. A lot of people from all around the world, I'm still friends with. Very

> supportive. Um, yes, I enjoyed school a lot. Um, yes, it was a good experience for me (Kate).

Studying at an international school provided a quite different experience for Kate compared to the other students who were educated in the UK. Her intercultural awareness (cultural capital) was further enhanced by living overseas and through the Ghanaian influence on her upbringing. Kate went to a boarding school in the UK to do her A-Levels whilst her family remained overseas.

Kate wasn't the only student who went to an all-girls grammar school, so did Isla. However, Isla had a different experience of her school:

> …it was an all-girls grammar school. 'Cause it was sort of perceived in the school that if you wasn't like and A or A* then you're not doing well. So when I had friends who went to comprehensive and I was like, mum, they are getting a C, which was hurtful to us. It was drilled into you that you have to get As and Bs really (Isla).

What Isla suggests is that the school had high expectations from its pupils in terms of the grades they achieved, and Kate perceived that the school was not very supportive of students who fell below their expectations. This was one of the reasons Isla gave for deciding to move to a different school after her GCSEs. Isla liked the 6th form that she moved to and was glad she moved, but she felt that this school also had high expectations of its students as it was also a grammar school. These examples suggesting the institutional habitus of these schools favoured those students who were high academic achievers.

It is likely that both Kate and Isla benefitted from their time at single-sex schools. Kennedy (2019) suggests that they may feel more challenged to the point of achieving their full potential and have more confidence than their peers at mixed sex schools. Both girls did do well enough in their GCSEs to progress onto A-Levels but whether they reached their full potential cannot be said.

Unlike Kate, who moved schools several times but appeared to have adapted well and loved school, Poppy reported that moving schools several times had a negative impact on her school grades and her ability to make friends:

> Secondary school cause I was the like the very shy kid and I didn't really speak to anyone. It was just…I found it kind of difficult at the beginning cause I was used to like moving around. So I didn't really make a lot of friends at the beginning…academic

> wise, like it was hard for me at the beginning because I didn't really...Coming back from Qatar. Like it was just like quite difficult for me 'cause I wasn't really pushed as much. But then after a while started trying to push myself and then I finally got [there]…yeah (Poppy).

Therefore, it is likely that the development of Poppy's social capital has been affected negatively by her moving schools. As detailed previously, Poppy had a tutor for maths and science to help her improve her grades and she managed to get a good set of GCSE grades, better than had been predicted.

Isaac was very positive about school and so decided to stay on in the 6th form to do A-Levels. During this period, he joined the school council and became Head Boy which will have added to his cultural and social capital. This, together with his refereeing in football and basketball, points to a young man who has been encouraged to take responsibility and take on leadership, perhaps through sport or at home.

Roberto didn't value his initial experience of secondary school but fairly early on in year eight his opinion changed, and he reports considerable determination and self-improvement through the remainder of his secondary education:

> … I just started to understand the importance of education of how much I need it and I'm a very competitive person. So like when I used to go to class and see people doing better than me I didn't like it. I used to be like, no I have to be better in this class and I just have to be the best at everything I do. So that pushed me to be better at education. Cause in year six when I did my SATS I didn't do, I didn't okay but it was the, what'd you call it? Um don't know, just the average score, I got the average grade in everything. So yeah, when I got into secondary school, I wasn't really in a high class. I was actually like most of the lower classes like. I was thinking, no, I can't be in this class. So I just started to work hard. Then into year 8 I moved into kind of the middle sets. And then year 9 I was in the top set and then obviously progressive into year 10 and 11 to do GCSEs and then I started to do well. I started to do really well and get better and better (Roberto).

Roberto reported that his parents always wanted their children to do well but were not pushy. Being an older sibling in a single-parent-family may have meant he had to mature early due to his responsibility and this made him realise the importance of his education and given him the drive to succeed. Furthermore, Roberto also joined the school council in year 11 which would also been beneficial to his development and acquisition of cultural and social capital, possibly increasing his confidence and developing his leadership skills. It is worth noting at this point that these participants are self-

selecting, and this might explain why two of the male participants were responsible school council members.

6.4.2 Post-16 qualifications and experience

The type of Level 3 qualification a student has studied prior to entering university has been previously shown to have a significant influence on degree attainment in Sport and Exercise Science as well as other degree courses. It was therefore important to understand the reasons for their choice of qualification and where they studied, as well as their experience and perceptions on the teaching, learning, assessment and support they received. Table 4.1 summarises the Level 3 qualifications studied and where for all participants and should be used as a reference point if required.

6.4.2.1 Choice of qualifications and where they studied

Apart from Jacob, all of the students studied their post-16 Level 3 qualifications in a school 6th form environment, albeit Ayesha's 6th form was within a boarding school. Five of the students chose to study A-Levels only, three did a mixture of A-Levels and BTEC qualifications, and Jacob studied a BTEC (equivalent to three A-Levels) at an FE college. Attending a 6th form and doing A-Levels was considered to be the natural progression following GCSE for most of my participants, and even Jacob never questioned this progression route following GCSEs at first:

> Because I guess schools always pushed you to go on and do something. And at that time it was, I think I joined school when that law came in that you have to be at school until you're 18. So it was kind of finish your GCSEs, go on to A-Levels. That's kind of just a part of it was. So I didn't really question it… (Jacob).

Studying extended BTECs in an FE college was not considered by most of the students, and were considered inferior qualification by some students:

> I think you are sort of looked down upon in my opinion but I think maybe 'cause they are in the grammar schools. BTEC is sort of vocational isn't it. Like you go there [FE College] to do hair and beauty or plumbing, like if you're a boy then you'd go there. But otherwise, you just stayed and do A-Levels. I never really considered it. (Isla)

> Well BTEC. My mum, well, no, I got really like negative thoughts about it. Not like, just like things like, BTEC is not going to be seen as, as good as A-Levels (Poppy).

Both Isla and Poppy demonstrating the influence of family and schooling on their habitus with regards to Level 3 qualification choices. Isaac had

considered going to another school post-16 and doing BTEC Sport but opted instead for A-Level PE. The family habitus of doing A-Levels will also have contributed to this decision:

> I did actually apply to another Academy where BTEC Sport was an option. But when I looked at the specifications of what you did, there was so much more in A-Level PE which I thought, okay, this will give me a lot more options once I leave. Then I decided to go to A-Level. And also I think everyone in the family before had done A-Levels and no one told me this is what you have to do. But it was just, it's just from what I knew more. So I did look into BTEC but I thought A-Levels were a much better option. (Isaac)

This is evidence of how parental traditions, and the family habitus influences the type of qualifications the students studied, and BTECs appear to be perceived as an inferior qualification by some. The students' perceptions were influenced not only by their parents and family, but also perhaps by teachers and their peers. Despite the negative opinion of BTECs from some students, BTECs (equivalent to 1 A-Level) were studied alongside A-Levels by 3 of the students, Roberto, Chloe, and Charlotte. It must be noted though, that both Chloe and Roberto only did BTEC Sport because A-Level PE was not offered, it was a fall-back option. Roberto did BTEC Sport alongside A-Levels in History and Philosophy and opted for it because of his interest in Sport, but again this was influenced by A-Level PE not being on offer:

> …we didn't have A-Level PE, it was just BTEC sport. So yeah, that was the only choice to have. It was either that or I just didn't do anything related sport. So just kind of really had to settle for it (Roberto).

Chloe also studied a BTEC in Health and Social Care alongside BTEC Sport and A-Level English Literature:

> …Health and social care because I, obviously I've grown up with my parents being foster carers and they have like social workers involved in the work they do as a backup and I always said I would be a social worker and obviously having the social care aligns with that quite easily. And my sister did it as well. She said it was a really good course to do (Chloe).

The influence of family habitus on her decision to study Health and Social Care is clear. Interestingly, Chloe didn't pick her subjects with a degree in Sport and Exercise Science in mind and she wasn't the only one. Several students didn't know what they wanted to do at that point so chose their subjects based on other influences. For example, Charlotte provided several reasons for her choices without having a particular future career in mind:

> I did BTEC health and social care. The reason why I did that is because it was something that really appealed to me. I found it easy as well and I'm really, really like liked the teacher. So she was like...I loved her teaching style. She was very enthusiastic. You could always go to her for personal or help or...So that's why I picked the BTEC. Then I did A-Level English language and A-Level PE. I did GCSE PE and I really enjoyed it, so I was like, I want to do A-Level PE. Also that sort of just linked on as well. I like the department. They were easy to like... Their teaching was really good. They were easy to get along with. And then English language. I didn't want to close too many doors, but I didn't specifically know what I wanted to do. I could tell you what I didn't want to do, 'cause I don't want to do science, don't want to do Spanish. But then I was like, I want to do something that is transferrable. So I didn't like reading books so I wasn't going to do English Literature. So I chose the English language just because I'd be able to analyse texts and it's just gives me transferable skills for whatever I wanted to do in the future (Charlotte).

Charlotte was thinking about transferable skills when choosing English Language. Enjoyment, liking the teachers and their teaching style were also very important in Charlotte's decision making. Isla and Roberto were the only students that specifically said they had wanted to do Sport and Exercise Science at that point and picked their subjects because of that; Isla opted for A-Level PE and Roberto the Sport BTEC.

Due to Sport and Exercise Science being a science degree, some academic staff consider that studying additional sciences and maths alongside the single A-Level requirement of PE or Biology would be beneficial to students on the course. Ayesha and Poppy had the strongest science backgrounds of the students, Ayesha doing A-Levels in Maths, Biology and Chemistry (wanted to do PE but it wasn't offered in her boarding school) and Poppy choosing A-Levels in Biology, Chemistry and Psychology.

Jacob's post-16 decisions lead him down a different pathway to the rest of the students interviewed:

> The only kind of interest I had was sports at the time and there wasn't really the science behind sport, it was more just the coaching of sport. So I wasn't really interested in my lessons. So, I actually dropped out my A-Levels and went and did an apprenticeship for a year and they did IT recruitment. Well, the two things I've always liked sports and business, which is what I actually do at uni as well. So, it's kind of, when I went into doing that, went into IT recruitment, I saw it as an opportunity to understand how businesses work from the inside. And then if I'm recruiting for businesses, I can see how other businesses work as well. So I did that for a year and then, end of the government funding for that kind of scheme kind of disappeared after a while. So, I had to move on and then somehow I ended up working for

> the government, doing recruitment for them. I stayed there for about six or seven months and then kind of in that time my passion for sport kind of came back. And it wasn't the sport of just like running around. It was the passion of kind of like, I want to know how certain things work. So I made my mind up and work one day that I was going to quit and go back to college. So it was a bit of a weird kind of path to get to college, but that's kind of what I did (Jacob).

Although being allowed to do A-Levels by his school, presumably because he got the GCSE grades to do so and his school thought him capable, he made the decision to leave 6th form and commence a short-lived period of work. I am not sure this would have been a decision some of the other students could have made due to the influence of their parents and the family habitus. The transition from having an interest in sports coaching to then being interested in sport science is evident in this quote, and this interest contributed significantly to his decision to go back to college to study BTEC Sport and Exercise Science. The fact Jacob leaves his full-time employment to do this reflects his passion for sport and determination to ultimately pursue a career in sport as he details later in the interview, and that the work he was undertaking wasn't what he envisaged himself doing in the future.

6.4.2.2 Studying Level 3 qualifications

Those that had studied A-Levels recalled a 'step-up' in difficulty from GCSEs. Most of the students also detailed having positive experiences during this period of their education. When asked about what they found challenging about studying their Level 3 qualifications they tended to focus on assessment and particularly exams. These caused a degree of stress for some students, particularly Charlotte, Chloe, and Ayesha:

> Like our school did surprise tests, especially for sciences, just to make sure you are keeping up with it. And I think that helped me, although it was quite demotivating at first. Because I wasn't really like ready and I was like, yes, [they are] only surprise tests. But they did show that they cared about the results. So it was like... I was always on my toes. I knew I had to go home and put in the actual work in. I found year 13 very stressful because I stress out when it comes to exams because I get under pressure and I feel I'm very nervous (Ayesha).

The fact that these particular students got stressed may be related to them being female as it has been suggested that males experience lower levels of anxiety about assessment (Pirie 2001). Indeed, Isaac reported being less stressed by his A-Level exams:

> The exams were alright. Weirdly, I don't really stress much when it comes to exams. I remember it was my year 10 mock exams, the first ever exams I sat properly, and I was really stressed out. But since then I was quite relaxed. I think when it comes to the point, you either know the information or you don't, so you just have to sit down and get on with it because if you're stressed out it won't help, it won't help your situation. So yeah, the exams are alright (Isaac).

Charlotte, Chloe, and Roberto were the students who did a mixture of A-Levels and BTECs. Charlotte spoke about her BTEC Health and Social Care:

> ...so it was only one exam and the exam was literally everything we covered in the lessons. So it wasn't like when the teachers were saying, 'Oh this might come up but don't solely revise that'. Literally everything. And it was easy questions like the, the biggest mark was a 10 marker and it's just to do with like the, the family situation. And I found it very relatable, easy and... But the BTEC was quite a lot of coursework and I work better when I have my criteria there, I have my lecture notes or my PowerPoint slides that, and then I can right away and like in my own time. I do find exams stressful in terms of like the time management, that's what I find stressful. But I prefer the BTEC to A-Levels (Charlotte).

Charlotte preferred the BTEC assessment due to the emphasis on coursework. Chloe, who studied both BTEC Health and Social Care and Sport also discussed the differences in assessment between the two types of qualifications, finding the time constraints of exams challenging and preferring the coursework assessments in the BTEC qualifications.

> Health and social care, to be honest I didn't really find that challenging. It was coursework based and it was a lot of what I was interested anyway. English literature, I think I did find it a little, but I wasn't always the best at it but I did enjoy reading a lot. Probably just the exam side of it. Like writing down in like time constraints. Obviously you have to write like really fast writing the essays in the exams...that's what I found quite challenging. BTEC Sport, I didn't really find that challenging because obviously I really, really enjoyed it (Chloe).

The preference for different assessment types and the stress associated with exams for some students will be important factors to consider in their early experiences of assessment at university.

6.4.2.3 Motivations for wanting to go to university

A variety of reasons were given by the students for wanting to go to university. Some of the participants had considered other routes after college including apprenticeships or work but most had an ambition to work in sport. Isaac knew he wanted a career in sport and eventually decided a degree in sport science was the best route for him:

> …when I was looking at my options, to go down sort of the sports science route, I figured university was the best way to go forward rather than...There wasn't so much in terms of apprenticeships to do for sports science (Isaac).

Isaac's 6th form had a careers assembly every week with speakers who had different routes post-18 such as apprenticeships and university, as well as different careers so the students had information and guidance on the different options available to them. This further reinforced Isaac's decision to go to university.

Charlotte didn't know at this point what she wanted to do but wanted to make herself more employable and saw having a degree as important for that reason:

> Again, it was similar to the A-Levels. Like I didn't know what I wanted to do, so I thought an apprenticeship wouldn't be suitable for me because I literally have no clue what I wanted to do. So I thought going to university will maybe like narrow down and give me an idea of what I want to do. So I sort of had to think what, what do I want to do at university? So whether it's something I enjoy or something I'm good at. And it was just like a process of elimination almost. But I knew I wanted to because I wanted to put myself out there a bit and not just have A-Levels. And I wanted to make myself likable for employers. So I just thought university was the best thing to do at the time (Charlotte).

Charlotte's Dad wanted her to go to university, and many of her friends had decided to go. Furthermore, as with many of the other students who had studied within a 6th form environment, this seemed to be the route that Charlotte's college favoured and therefore exerted considerable influence on the students. As a result, Charlotte felt that she had 'no other option'. It 'felt natural' for her to go even though no immediate family members had been to university. This demonstrates how Charlotte's habitus, or 'structured, structuring dispositions', have been influenced by other factors such as people with similar social class and educational backgrounds.

Isla had also been strongly influenced by the grammar school she had attended originally attended from year seven to eleven:

> …when I was younger it was drilled into us at my first school that you go to university and get a degree (Isla).

She then changed school when she went into the 6th form, but they also had the same opinion:

> …it [6th form] was very university [orientated]. It wasn't... I think…they had a board of the last year of everyone who went to university. Anyone who didn't go to university, wasn't mentioned on it. That was the way you had to go (Isla).

Several of the other students also described how their 6th form college were also focussed on students progressing to university, although Chloe took a gap year and then went later:

> I didn't actually go to uni the year after I got, I just started working. And then I saw all my friends go off to uni and it kind of made me think like, I do want to go. It does seem like a lot of fun. And also the job, like the range of jobs I thought I kind of want to do in the future you do need a degree, a degree for it and like most jobs that I wanted to do you do need a degree. And also the fact that I do really enjoy education. I wasn't, I don't think I was ready to not be in education anymore, you know, throwing myself into a job (Chloe).

Chloe's motivations were her friends, job prospects and enjoyment of education. In addition, Chloe also had an older sister who had been to university. Having siblings and parents who had gone to university influenced other students as part of the family habitus. Furthermore, the family cultural capital is beneficial when making university choices and supporting them in their university transition. The influence of the college they attended, or institutional habitus, was also important to the students' decision making.

FE colleges enrol students who are traditionally less likely to progress into HE, despite universities now enrolling students from a wide variety of qualifications and particularly the post-92 universities. Jacob was discouraged by his FE lecturer to go to university:

> I was actively discouraged to go to uni because my lecturer, my old college lecturer had a masters and PhD and told me that the kind of person I am probably uni isn't the best choice for me. He said that I learn better when I'm physically doing things, which is right. And he said that if I go to uni, it's obviously you get a degree, which is great (Jacob).

Furthermore, Jacob's parents and siblings had not gone to university, so he did get encouragement from his home:

> …mum was like, Oh, you could go to uni and you could do this, you could do that. So I kind of took his advice with a bit of my mom's and thought, you know what, if I don't like it, I can always just leave. So yeah, I wasn't really actively pushed to go to uni. Everybody else was, everybody else on my course was pushed but he took me aside and he was like to me, I've been teaching you for two years. I find that you find that you learn better when you're actually out doing something rather than when you're just

> sitting down taking notes so uni might be a struggle for you because you won't pick up information from just sitting in a two-hour lecture. You'll need to understand why something is like that. And the only way you can really understand that is if you do a physical demonstration of it (Jacob).

His college lecturer bases his negative advice on Jacob's learning style, but it seems more likely that this was a social class difference realised in mismatched educational habitus. Jacob didn't have the family capital and habitus to push him towards HE and the institutional habitus of his FE College differed from the school 6th forms of his peers. On the flip side, Jacob felt he could just leave if university didn't work out for him. He was the driving force behind his decision to go to university so wasn't there because it was expected by parents or teachers, and he had already got experience of 'dropping out' from 6th form with A-Levels. He had also worked previously and knew he could return to that should university not work out. Other students would probably not have been able to make that decision as easily based on their motivations and influences for going to university, and their lack of maturity and life-experience compared to Jacob.

6.5 Early university experience

This section begins by exploring the students' perceptions on how well their Level 3 qualifications prepared them for the academic aspects of university life. This is followed by analysis of the social aspects of students' transition to university. The students' perceptions on the factors of success are discussed as well as their perceptions of their own success, degree, and career aspirations. The analysis sought to identify how the students' capital and habitus might explain some of the differential outcomes in relation to degree attainment. Table 4.1 should again be used as a reference point to remind the reader of the Level 3 qualification studied and other characteristics of each participant.

6.5.1 Academic aspects: Teaching, learning, assessment, and support

6.5.1.1 Different ways of learning

There are differences in the approaches that colleges and HE take to the delivery and assessment of their curricula. Students are aware of these differences when they transition to university, and some manage this shift better than others. On the BSc Sport and Exercise Science course, the participants experienced a variety of different teaching sessions: lectures are

delivered in large lecture theatres, whilst tutorials and laboratory classes are in smaller groups giving students the opportunity to interact with one other and the lecturer.

Most of the students reported preferring tutorials and lab classes to lectures. Several students commented on the large number of students in lectures compared to their smaller classes at college, and there being fewer opportunities to ask questions and interact with academic staff. Charlotte detailed how she preferred tutorials over lectures and described herself as a 'kinaesthetic learner'. Poppy and Ayesha liked laboratory classes for the same reason, Ayesha describing the opportunity of applying the theory she had learned in the lecture:

> I think labs work really well because you're putting what you've learned from theory into your knowledge. So your labs will be on later on during the week. So you'd have your lectures here. For example, for us this year's Mondays, all of my lectures are on Mondays. Then our lab will be on Thursdays. So I had time to process the information, go over it my own time, go to lab and apply everything I've learned, which is good. Especially working in small groups and meeting new people. It's a bit of a bigger group than your tutorial cause there's three different tutorial groups together. So it was roughly like what we had in 6th form in terms of our class size. Which worked really well for me 'cause I got to... I'm a practical person. Like once I've learned something I like to try it out, like physically do it (Ayesha).

Chloe preferred lectures and tutorials and thought she learnt more from them than labs. Isla also liked lectures and the process of being spoken to that was similar to her school experience, though she appreciated the variety of sessions:

> I think it's good that we've got 3 different ways of learning really with the tutorials, labs as well as lectures…Sometimes I won't understand something in a lecture but once we do it in the labs then it's like Oh yeah of course that would have that effect or something like that (Isla).

Students were generally positive about the teaching they got at university with Chloe recognising and appreciating the level of knowledge and expertise the lecturing staff had compared to her teachers at 6th form. Jacob, however, was the only student who said he preferred the teaching he received at college:

> College was definitely better for me because we had a practical session every, twice a week. So whatever we had just learned in for two days before they'd show us. Like if they, if it was something that they could show us, they show us. And I guess when they showed us it kind of stuck in a bit more, whereas when

> I'm at uni, it's like this is the theory behind everything, go. And it's, it's a bit harder for me to kind of grasp the understanding of things when I can't physically see it. So college was best suited for me in that sense (Jacob).

As with the other students, he also appears to like tutorials because of the interaction with the academic staff:

> We've also got the tutorials. Tutorials are better than the lectures because there's less people in them and you can get more one on one time with the lectures if you need support and help. So, yeah, the lecturers unfortunately don't really do anything for me, but the tutorials and the labs are better (Jacob).

Most students seemed to favour the smaller-group teaching offered in tutorials and laboratory classes, reasons being given including the ability to interact with the lecturing staff and build relationships with them as well as the opportunity to ask questions and get academic support and guidance.

6.5.1.2 Subject content and knowledge

Students arriving in HE previously studied a range of subjects and different types of qualifications, and their transition experiences are affected by their familiarity with the subject content. The subject demands of the degree proved challenging for the participants and some of this related to prior qualification types and subjects. Some of the students found the science in the course challenging. Isla suggested that having A-Levels in Biology and Chemistry would have helped with those aspects of the course, but she was glad to have done P.E and Psychology because they had really helped. Ayesha reported that not having A-Level P.E had been a disadvantage but she had been motivated to learn the information so she didn't fall behind.

Several of the students who had studied BTECs felt at a disadvantage compared to A-Level students:

> They were kind of just at an advantage where they didn't really have to pay as much attention to the lecture as I did because they were like 'Oh I've seen this and I've learned this already before so I don't really need to look at this again'. But me, this is like the first time I've seen it. So I had to proper pay attention and then go home and look again to just kind of register it in my mind (Roberto).

This may be due to greater emphasis of memorisation for exams in A-Level as well as differences in curriculum content between the qualifications. Roberto did, however, later acknowledge that there was some useful content in the BTEC Sport that has been covered in his degree. However, when

asked directly which qualification had prepared him better for university, his opinion was A-Levels:

> I'm probably going to just say the A-Levels I think. But I think some of the essay writing I did in those courses [A-Level] helped me as well. I also think the workload that I got in those courses and having to like note take or stuff like that, that kind of helped because it wasn't the same in BTEC sport. I didn't have to take any notes, I didn't have to pay much attention. I would just look at the coursework brief and then just answer the questions based on that and I'd just research it. And then that's that. So really, I didn't even need to be in that class, I could have actually just got the summary and gone somewhere else. But for History and Philosophy [A-Levels] and everything I had to go to class, engage, make notes, go back and revise those notes, practice essays, things like that. So that whole process of you know, getting notes, going back reviewing them and all that then writing an essay on it. Being concise in that essay as well. I think it's a critical skill that you can use for any degree. It depends on if obviously in the degree if you write an essay. So yeah, I think that was probably what helped prepare me more for uni than the Sport BTEC (Roberto).

The process of engaging in class, making and reviewing notes, drafting essays, being concise that Roberto details about his A-Levels studies are study skills that we would expect of students at university and explain why Roberto thought his A-Levels prepared him better for university.

In contrast, Ayesha, who had done A-Levels, was under the impression the students that had studied just BTECs on the sport and exercise degree course were at an advantage during the first year:

> So, they [BTEC students] found it a lot easier. They were already familiar with course work. Whereas, for example, me being from an A-Level background, I wasn't used to doing coursework, so everything was new. Referencing was new. Like having deadlines like this. I was just used to having, yeah, you've got a test in May and June. That's what you've got to revise for. You may have your mocks in December, but that's it. There wasn't really any other coursework guidance. Whereas these guys, they knew and it was good to have them around you because you could ask them like, ‘Oh you know, what do you usually do? What's your usual routine?’ So you could find out from other people, cause they might, although they weren't in your tutorial class, they might be in your laboratory class. So they're like, ‘Oh I know these techniques. I learned it last year. Like I can show you if you need help’ (Ayesha).

So, according to Ayesha, not only did the BTEC students appear to have an advantage when doing coursework, they had also done some of practical techniques the students learned in the first-year labs already. Interestingly, Roberto did think that one of the most useful aspects of his BTEC Sport

course had been the practical skills he developed during practical coaching sessions, although these were outside of the laboratory. Therefore, there is some evidence that different Level 3 qualification types and subjects provide differences in the institutionalised cultural capital a student acquires.

Jacob (BME student) was the only participant from a BTEC-only route having completed the BTEC Extended Diploma in Sport and Exercise Science:

> I guess because I did the sports as a BTEC Level 2 with my GCSEs. So then when I went onto Level 3 it was kind of just developing on the knowledge of that. But because I was already in sport and I was in a strong sporting background, everything that we did like I kind of already had an idea of and I didn't actually have to reference anything so what I knew, I knew and I could just write that down and then hand it in. So I think I finished my first year in about four or five months. I just got all the work, sat down and did it all. And then in the second year they changed the rule, so I wasn't allowed to do that. But, my lecturer at the time just used to say, there's no point in you coming in. I'll mark you in, you're going to do the work anyway. I know you will. And then came out with distinctions (Jacob).

Jacob was able to use his prior knowledge and experience to meet the awarding body's criteria. He made little use of additional literature or resources and so didn't develop some of the knowledge and skills that would have been useful in the future for degree-level studies. However, his experience did foster the independent approach to studying which is expected at university:

> I learned some stuff because there's some stuff I wasn't exactly sure about so I'd have to like Google it and then luckily it's kind of paid off here because I've still got my old work. But, yeah, it didn't really help prepare me for uni at all (Jacob).

Different study pathways, curricula and qualifications accrue differential benefits for learners. It could be suggested that those students that did a mixture of A-Levels and BTEC qualifications may be in a better position than those that did one or other of the qualifications alone. However, depending on what qualifications they did, as well as the subjects studied, the students will all have acquired different cultural capital as a result.

6.5.1.3 Independent study and academic support

Students reported that an increased amount of independent study is expected at university and had realised quite quickly the differences in the level of support between college and university, for example:

> …when you come to uni, you need to, if you don't ask for their help they won't give it to you. So you really need to be out there and ask for it. Which I was not, I'm not really used to doing cause like I just feel like I'm bothering people. Yeah. But yeah, that was a big difference. But I think, I think halfway through the year I kind of learned how to ask for help and stuff by myself. (Poppy)

Many comparisons were made with regards to the level of support they got at college compared to university. Participants reflected on support they received from tutors during their first year. For most this was positive, with two identifying particularly helpful staff. Some students had already built good relationships with academic staff and others acknowledge that they had not accessed enough support but would look to change that in the future. One student, Jacob (BME student who had studied a BTEC), found asking for help difficult. Struggling with writing an essay, he was advised to contact the University's Centre for Academic writing. When this support was unhelpful, rather than go back to the academic staff on the course he taught himself:

> I then went to the Centre of Academic writing to try and get some support on writing essays. Yeah. That didn't work out either, to be honest. I was just given the advice to write in full sentences and I was like, yeah, I understand that. What I don't understand is like how to expand on a point where I don't feel like I'm just repeating the same things and they just couldn't and then didn't help. So YouTube helped a lot. I watched a lot of YouTube videos on how to do that (Jacob).

Jacob's reticence about asking may have been due to a sense of personal inadequacy. Alternatively, it could be that he is much more self-aware and understands what will help him and what is unlikely to. As we saw in earlier aspects of his life, he took responsibility himself rather than seeking advice. He had developed considerable independence during his BTEC studies and had gotten used to finding out things himself rather than asking for help from the lecturer:

> If I don't understand something that I've done whilst I'm at uni, the rest of my days can be me trying to figure it out and trying to kind of understand it (Jacob).

Jacob's acquisition of capital whilst growing up, via school and from his period of work had resulted in a habitus that appeared to be quite different from the other participants.

6.5.1.4 Assessment

Students' comments about assessment and the difficulties they experienced often related to what they were familiar with: A levels and/or BTECs. Some

felt that their chosen qualifications pathway had prepared them well for university:

> I think they both had really good positive effects because of coursework. I mean, last year it was, and this year, mainly coursework based. And a lot of the things that we did in first year I did cover in BTEC sport which was good. And again there was exams. Obviously I had experience of revision through GCSEs and doing the A-Level. Obviously I did English literature at A-Level, which is completely different to this. Um, maybe that wasn't like revising things that I did in BTEC sport was a bit challenging because I never revised it in BTEC because it was always coursework so I never had to remember it. But again, because I enjoyed it, I feel like I did enjoy revising and I had that. I knew what type of revision worked for me from doing A-Levels (Chloe).

Chloe thought the coursework aspect of the BTECs had helped with the coursework in the degree course and sitting exams for both GCSE and A-Levels had helped with university exams, particularly the style of revision needed. However, she didn't feel that she had learned the subject content from the BTEC well because she hadn't had to memorise it for an exam. Roberto made a similar comment:

> …the teachers would say, 'cause it [the BTEC Sport] was all coursework, they were just saying go research it online and then write it into your thing and then submit it and that's it. So I never really learned it. So literally everything that was like, you know, thrown at me in first year was kind of like, it was almost like it was the first time I've seen it, but not the first time I've seen it. 'Cause I then had to look at it and understand then revise it and learn it. But I've never had to do that before. So it kind of, I kind of felt like I was a bit behind. Everyone knows I had a little bit more work to do to catch up. Like if you'd actually look at the others they would just be on their phones, cause they've seen this already so they kind of already know it (Roberto).

The depth of learning and memorisation needed for A level assessment is something that Chloe and Roberto imply was missing when they completed (BTEC) coursework. They did not feel that they had properly 'learned' something.

Several of the students reported struggling with essays and written work, in particular scientific writing. Kate contrasted this with her A-Level History:

> Maybe the style of writing as well. It's different 'cause I like to elaborate like in history I like to write a lot, but science based things you can't because there's a word limit. The word count really gets me. So I'm always off by like 500 words or more and I have to cut down so much and then it's just because of history-based. But I have to learn to write scientifically I guess. And critically that's challenging I think for me so far (Kate).

Roberto, who had also studied A-Level History as well as Philosophy faced the same challenge:

> …I don't know how, 'cause I write many essays, but essay writing was something I actually didn't do that well in. I think it was just writing scientifically 'cause I've never had to like write like that. I know this was kind of that first piece of lab or essay writing and I had to write scientifically (Roberto).

Poppy and Isaac mentioned struggling with aspects of the coursework. Isaac's issue was referencing as this was new, and Poppy found being concise and answering the question set a challenge. All of these students had studied 3 A-Levels so perhaps it is less surprising that they found coursework assessment challenging.

Students who had done A-Levels and were familiar with high-stakes assessment still struggled with the anxiety of exams during their first year. Several students mentioned the practical exam that assessed key practical lab skills and competencies, for example:

> I was quite stressed beforehand because under pressure I seem to like forget the skills that we learned in labs and the fact that I was able to do it and pass was quite defining for me because I really didn't have that much confidence in myself that I could take the skills that I learned and do it in a kind of real life situation (Chloe).

> I was quite stressed for my first practical exam because it was a new type of exam for me...And also knowing certain mistakes you could make could just fail you straight away because they're so important. So that did, that did stress me out quite a bit (Isaac).

The skills, expectations, and experience those students with prior vocational qualifications bring to HE may differ to those of A-Level students as their assessment will have centred around tasks with a more practical or occupational focus. Jacob, for example, had a very different experience of assessment on his BTEC:

> …they had the old way of doing BTEC where you just answered a couple of questions and that was your coursework done. I've never had to write an essay before. And then when I came to uni they were like, Oh you have to write an essay. I was like, oh, okay. So I tried to teach myself how to write an essay. That didn't go very well. So that was the hardest part of uni, really just having to write essays and be scientific in writing and be formal (Jacob).

Despite not having exams on the BTEC it was surprising that Jacob said he didn't struggle with exams as this is something that BTEC students have report struggling with on the Sport and Exercise Science courses in the past:

> Exams were easy for me. I can, I could sit there and just read a book and it's just remembering things in the exam. You don't actually need to know it specifically if you just remember how something works, then the exams kind of easy (Jacob).

The challenges and concerns highlighted by the students around the lack of support and independent study as well as the different teaching, learning and assessment types could be explained by a 'mismatch' between their own cultural capital and habitus and the university field that they have entered. During the first year they will have acquired cultural capital and their habitus will have adapted in the university field resulting in them passing and progressing into year 2 of the degree.

6.5.2 Social aspects and independent living

The transition to university can be a difficult process because of the simultaneous educational, social, and developmental changes. However, most of the students appeared to have made a good social transition into university and were doing well living independently. Social capital acquired through students' sports and physical activities could have contributed to this. Kate had been boarding for 2 years to do her A-Levels and was therefore already fairly independent and used to living on her own:

> The transition to uni, it wasn't that big 'cause I've been to boarding school. So that helped a lot. So I didn't really see challenges in coming living on my own really. I had done it for two years before (Kate).

Kate's habitus will have been developed in particular university-friendly ways as a result of being at boarding school and therefore facilitated this transition into university. Ayesha also transitioned well socially. The NCS Cambodia trip that she had undertaken may have contributed to her strong sense of independence. She would have interacted with new people in an unfamiliar context, and this may have helped with her university transition. However, she did acknowledge that she had to balance living independently alongside her studies. This independence was acknowledged by some of the other students, including Isaac:

> The whole independence is so huge when you come to university. That is, I think that's the biggest thing. If you live, especially away from home, then you do everything. Everything is completely down to you. You do everything yourself. You have to

> get yourself up in the morning. You've got to make yourself food. There are times I sort of went to the fridge, Oh, there's nothing in the fridge because mums not here. You have to go out to do your own shopping (Isaac).

Again, Isaac had no trouble socially transitioning into university life. He presented as a confident young man (Head Boy, team player). Jacob also appeared to have transitioned well socially without any reported issues. Interestingly, the 'life education' that Jacob said was important to his parents appeared to have helped with his independence:

> Socially everything was fine. My mum and dad made sure that I was independent. I knew how to do everything myself. From the time I was about 13, my mum wouldn't clean my room and she wouldn't like wash my clothes. If I wanted to wash my clothes, I washed my clothes. And then if I was lucky, if she was ironing like I would get her to iron something for me. But if not, then I did it because she would, she just said that one day she's not going to be there and we have to learn how to do things for yourself. So she taught us everything from cooking to cleaning. So when I came to uni I didn't have any problems. I've always really been independent, so I didn't really miss my family like that. I didn't have any like, and it wasn't, I was never homesick (Jacob).

Furthermore, the fact that Jacob was slightly older and had experienced a period of employment may also have added to his independence and supported his transition. Jacob was the only student that mentioned having a job whilst at university due to financial difficulties back home. This must have been difficult for him during his transition but having had experience of working before and being as independent as he is, this didn't seem to have significantly affect his studies.

Chloe was worried about moving away from home, which is not uncommon, but enjoyed the social aspects of university and transitioned well. However, several of the girls appeared to experience homesickness when they started university including Isla, Poppy and Charlotte. Isla appeared to cope well despite this, but homesickness affected Charlotte and Poppy more so, albeit for different reasons. Charlotte, had had bad experience in her halls of residence:

> Like the whole first year for me, I was just so unhappy. Like I would go home every weekend cause I hated living here. Like the flatmates I was living with they would party from Monday all the way through to Sunday (Charlotte).

Despite this, Charlotte was able to give her academic work the attention it needed and successfully completed the first year. Support from her family

during trips home, as well as friends and tutor support, may have contributed to this.

Poppy also struggled for several reasons in her first year. Having gone to an all-girls grammar school she had only been used to having friendships with girls:

> I think the most challenging thing was making friends because then also there's not a lot of girls on the course as well. And cause I was really, my secondary school was an all-girl school, so I was just used to knowing the girls first (Poppy).

She reported struggling to live with new people and the disruption of the close relationship with her mum and brother had had negative effects:

> I was seeing my family less. My mum and my brother didn't really understand that. So they weren't speaking to me as much and like the relationship kind of fell apart. Yeah. So that really at the end of uni [first year] really took a toll on me ‘cause I didn't know what to do (Poppy).

Restarting athletics really helped Poppy through this difficult time, increasing her confidence and social life. The regular exercise improved her mental health, which had been affected when she gave up athletics at the request of her mum when she did her A-Levels.

6.5.3 Degree success and career aspirations

The participants cited common reasons underpinning success: organisation, self-motivation, wider reading, discipline, hard-work, good attendance, getting and acting on feedback, asking questions, and utilising the academic staff more. The students mentioned their own strong qualities, many of which are covered by those themes. However, Isla’s response was slightly different to the other students:

> I'd say I'm probably...confident and ambitious. I know where I want to be. I know that's how I need to get there (Isla).

These apparent qualities may have been inherited – in a Bourdieusian sense –from her mum who was reportedly a strong, confident career woman, and reinforced in the grammar school with its ethos of drive and ambition. Roberto also gave a response that was slightly different to the others as he said he was ‘adaptable’ and then went on the mention resilience:

> I also think I'm quite resilient. Like depending on what you don't know... If something happens I can just kind of bring myself together and say, okay, and here we go again, like let’s try this again (Roberto).

Similarly to Isla, such adaptability and resilience may well have been inculcated in his single parent family or perhaps through the sports he was involved in. Resilience and adaptability are both aspects of the habitus, and considering Roberto's family background, he has adapted well to university life and these qualities would have facilitated that.

Jacob didn't mention any of the strengths and qualities the other students had and gave a very different response:

> I wouldn't actually know. I'm a little bit weird when it comes to certain topics, so I won't bring it up. What people do for jobs, how people get on at their job, how people like get along with their uni work or things like that. So I wouldn't know how other people do (Jacob).

Jacob appears to focus on himself and doesn't pay much attention to what other students around him are doing. This again is a demonstration of a habitus that is somewhat different from the other participants. He does not appear particularly comfortable in the university environment but is persevering:

> I came to uni and realized that yeah, that was, that was, he [his college tutor] was right. Probably wasn't really the person for it [university]. But, after I struggled through the first half of first semester, I thought I've only got one more semester to go, so I might as well. And then after I finished my first year, I was like, well, if I've done one year, I can do another year. And if I've done two years, I can do one more. So I'm kind of just sticking with it and just putting my head down and trying to learn in a way that I'm not used to (Jacob).

Jacob appears to be feeling like a 'fish out of water' because his resources (capital) and the orientation to use those resources (habitus) don't match the field of the university and the dispositions of his peers. He struggled with the written assessments and certain teaching methods (e.g. lectures) do not suit him. However, he is determined to do the best he can with the resources he has:

> I'd say my pride is the biggest one because sometimes like I won't ask the question because I would feel like that's a bit of a stupid question. Whereas I'm getting to a point now where even if I'm thinking it might be a stupid question, 10 other people could be thinking the exact same thing and if none of us are going to ask, none of us are going to know. And even if the lecturer is like, that's a bit of a stupid question, but they still answer it anyway. So I'd rather know that now I'm kind of just letting kind of let go of that and I'm just asking questions if I don't understand something, I don't understand something and I will ask (Jacob).

Jacob is very independent as demonstrated by his account of his BTEC studies and his approach to self-help referred to above. He was not used to asking questions and seeking help. He identified this weakness and is working on it which suggests he is perhaps acquiring additional cultural capital and his habitus is adapting somewhat to the university context. Even though he passed his first year and started his second, he was still not sure that he made the right decision about coming to university:

> Generally the advice that I would probably give myself is... I would probably tell myself not to go to uni in all honesty (Jacob).

There remains a 'lack of fit' between his habitus and the university field within which he is studying.

During their accounts, some of the female students showed signs of being perfectionists, that is they strive for the highest standards of excellence in their work. This sometimes resulted in stress due to the pressure they put on themselves:

> Taking things too seriously. Like there are certain things I was stressed... I think because I try to be perfect or as good as I can be. I stress myself out and I not overwork myself, but I just overcomplicate things and I put too much pressure on myself and I probably shouldn't have (Ayesha).

Perfectionism can provide the drive which leads to achievement, attention to detail, commitment, and persistence, all of which could result in good degree attainment. This is being demonstrated in Ayesha's approach to her work where she said she always wants to improve even if she gets a good grade. However, it can have negative effects because it can cause stress when things don't go to plan. Charlotte also displayed some of the same perfectionist tendencies in some of the accounts she gave:

> I get very, very frustrated with myself very easily. So like for example, today I just had a complete meltdown in the class 'cause I didn't understand one thing and then I fixate on that one thing that I don't understand and then it just spirals out of control (Charlotte).

Chloe also mentioned she was 'competitive with herself'. The perfectionist tendencies displayed by these students may be related to their sporting activities, particularly the fact they all do individual sports. This is, arguably, an example of where the 'transposable dispositions' of the habitus can be seen played out in quite different contexts.

When asked about their likely degree outcome, all but one of the students said that they wanted at least a 2.1 if not a first. Roberto was adamant: 'I'm getting a first. I'm getting a first. There's no other choice, I have to get a first.' He said he had the confidence in his ability to get a first and had marks in this classification in the first year, so as long as he worked on certain thigs, it was achievable. Poppy was less confident:

> Hopefully a first. Yeah, 'cause I feel like, I mean, like people just say, 'Oh I want a first'. But you need to realize the amount of work that needs to go into getting a first. But I know that if I really like focus, push myself to it and just achieve what I want to do, then yeah, I think I can get it. 'Cause I need to believe in myself that I can get it (Poppy).

Here, as on so many other occasions, it was Jacob who gave a very different response to the questions about outcomes and careers:

> I don't know really. I don't think like that. I think of here in the moment really. As long as I'm happy in five years, that's the most important thing to me…I've thought that as long as it's not a third really, or a fail. Yeah. Have a degree and overall just kind of be happy and I guess my job will be something to do with sports, but I haven't sat there and planned it all out. I've kind of just want to make sure that I pass second year first (Jacob).

He said he was happy to have just passed the first year, despite having to do resits, and is now just concentrating on passing his second year. Whilst the other students were adamant they wanted to get a 'good' degree, he is content on just passing. He may not know for sure what he wants to do in the future, but he knows what he doesn't want to do:

> The time that I spent doing my A-Levels made me realize that I didn't want to do certain things. I'm still not 100% sure on what I do want to do, but I know what I don't want to do. And that's halfway there, really. So I just look at it like that. I may not know what I want to be in five years, but I know what I don't want to be doing in five years and as long as I stay away from what I don't want to be doing, I'm sure I'll figure it out (Jacob).

Having had experience of doing A-Levels before his BTEC, and a period of work, he has experience to draw from that the other students don't when making decisions. Therefore, you would expect his cultural capital and habitus to be different from that of the other students and on many such occasions the data demonstrates this.

6.6 Chapter summary

This aspect of the research has provided an insight into the thoughts, feelings and perceptions of Sport and Exercise Science students from varying backgrounds and their early university experience. An understanding of the students' family capital and habitus and the opportunities for the acquisition of cultural capital and the development of their habitus provided the backdrop to the detailed accounts they provided of their transition into a post-1992 university.

In terms of the family capital and habitus, all students interviewed had experience of higher education within the family (parents or siblings) or wider family (e.g. grandparents, cousins). It was evident that parental occupations and economic capital, as well as family structure and circumstances, had influenced the students' lives, including their education. This included the exchange of economic capital into cultural capital for the benefit of their education. The students came from a range of different backgrounds, but all were encouraged to do well at school

Sport and physical activity have been an important part of all the students' lives and, along with some of the other hobbies and interests, has enhanced their cultural capital. Cultural and social capital has been acquired by all students but with differences depending on the nature of the sport and their level of engagement in it. Sport will have also influenced, as well as being influenced by, their habitus. The involvement of families in choices about sports, other activities and holidays is the means by which the families pass on some of the cultural inheritance to their children. Furthermore, their interest in sport was influential when choosing their Level 3 qualifications and the decision to study Sport and Exercise Science at university.

The types of school that the participants attended varied with the majority attending local comprehensives. All the students did well enough in their GCSEs to progress into 6th form where they studied either A-Levels alone or alongside BTECs. The students that had studied BTEC Sport alongside their other A-Levels did so because A-Level PE was not offered, with several articulating negative views of the BTEC courses being one of the reasons they chose to study A-Levels. One student decided the A-Level route wasn't for them and after a period of work embarked on a BTEC Sport and Exercise Science at an FE college and not surprisingly this student gave a very different account of their post-16 experience compared to the other students interviewed. All the students reported they were motivated to go to

university because of future career aspirations. For the students who had studied at 6th form, most saw going to university as a natural progression, and this was also the route that 6th forms actively encouraged students to take. A strong parental influence was also evident for some students. All students appeared have families that supported their decision to attend university though precisely how this played out depended on the prior experience and family habitus more generally.

The students' early experiences of university are diverse and complex and involve students facing simultaneous educational, social and developmental changes. However, there are key themes apparent regardless of the students' background or post-16 qualification route. They prefer small group teaching and laboratory classes; they don't share a consensus around what type of assessment they prefer or find challenging; they acknowledge the requirement of more independent learning at university and having to be more proactive if they require support. One issue that was perhaps more predictable in the transition into university was that students have different experiences of, and familiarity with, the subject content depending on the subjects they previously studied. The social transition into university had been unproblematic for most students interviewed while for a few there were some familiar difficulties. The 'sporting capital' they each acquired and is evident in the transferable dispositions of their habitus, has contributed to the transition both academically and socially.

The intersectionality of the different cultures, genders and backgrounds of the participants has impacted on their educational trajectories. Each student is affected by many varied factors that could influence their thoughts, feelings, and perceptions at the different times of their lives including their early university experience, and different post-16 qualification routes. However, none of the underlying themes appeared to relate directly to gender and ethnicity, and as the social class of the students was not disclosed, factors related to social class could not be concluded upon. As all students at the time of interview had successfully passed the first year and progressed to the second, the challenges the students had faced in their first year, as a result of different post-16 qualification routes, cultural factors, gender, and/or social class, were not significant enough to result in them failing or withdrawing at this stage in their degree.

The next chapter will discuss the results of both Chapters 5 and 6. The interview data from Chapter 6 being used to help explain and add depth to

the statistical patterns identified in the quantitative data presented in Chapter 5.

7 Discussion

7.1 Introduction

This chapter considers the main findings from the cohort analysis in Chapter 5 and discusses them in relation to the pertinent literature, as well the student interview data in Chapter 6, to build understanding of differences in degree attainment and why they occur. The analysis of quantitative cohort data in Chapter 5 gave some insights into entry and attainment patterns and hints at some of the causes of differential degree attainment. Subsequently, the analysis of student interview data in Chapter 6 explored why these differences occur and was informed by Bourdieu's theory of practice. Of particular importance are the different qualification routes that students took on route to university.

The structure of this discussion chapter will follow the research sub-questions as follows:

- What is the association between prior educational attainment in Level 3 qualifications and degree attainment?
- Can differences in degree attainment be explained by the type of Level 3 qualification studied?
- Can differences in degree attainment be explained by other student demographics such as gender, ethnicity, and socio-economic class?

With the overarching question concluding the chapter:

- In what ways do academic and social factors predict degree attainment in BSc Sport and Exercise Science at a post-1992 university and how can this be explained?

7.2 What is the association between prior educational attainment in Level 3 qualifications and degree attainment?

Analysis of cohort data in Chapter 5 provides evidence of a relationship between prior attainment and degree outcome, but this is complicated, and the results suggest that the measures used in terms of prior attainment are important. Tariff from 3 had a significant association with degree class

(Figure 5.8) but not Total UCAS tariff (Figure 5.5). Furthermore, the relationship between degree mark and tariff points was slightly stronger for Tariff from 3 compared to Total UCAS Tariff as demonstrated by the higher correlation coefficient values (Table 5.5). These results combined would suggest that Tariff from 3 is the better predictor of degree outcome and therefore quality and not quantity of points is more important. The following example illustrates why this may be the case. Total UCAS tariff is made up of all the qualifications a student has obtained that are awarded tariff points. This results in a given point score that reflects a range of grades and number of qualifications. For example, a student with CCC at A-Level would get 240 points but could make up an additional 120 points from other qualifications that were not part of the original admissions offer and have a Total UCAS Tariff of 360 points. A student who only studied three A-Levels and got AAA would also get a Total UCAS Tariff of 360 points, the same as his Tariff from 3 points score, and more likely to outperform the student with grades CCC with an additional 120 points added from other qualifications.

Although there is evidence of the relationship between prior attainment and degree outcomes, the results suggest that when all qualifications are considered together in the analysis, there may be an attenuation effect at the top of the points range whereby more points does not necessarily lead to a higher degree attainment. In fact, for both Total UCAS Tariff (Figure 5.5) and Tariff from 3 (Figure 5.8), the mid-point group had the highest proportion of 'good' degrees. An attenuation effect was also found in the study by Gill (2015) when total UCAS tariff points were used to predict degree outcomes. This again demonstrates that getting higher tariff scores is not always indicative of higher ability levels. Gill (2015) suggested using the A-Level mean instead of the total tariff points as a possible solution. Within my own School, we use Tariff from 3 but even this did not eliminate the attenuation effect when all qualifications were considered together. One explanation for this is the possible conflation of tariff for BTEC qualifications and the effect this has when all qualifications are considered together. This shall be discussed further later in this chapter.

As detailed in the literature review, most of the studies in this area have only included A-Levels in their analysis so it was also important to consider each of the main qualification groupings separately in the present study. For those students who only studied A-Levels, results suggest that an increase in tariff points (Total UCAS Tariff and Tariff from 3) generally results in higher degree attainment in terms of degree class (Figure 5.6 and 5.9) and degree mark

(Figure 5.7 and 5.10). This effect was particularly evident for Tariff from 3 (Figure 5.9). These results align with previous research reviewed that found a significant positive relationship between A-Levels and degree outcome in both large-scale studies (Chapman 1996; Naylor and Smith 2004; Sear 1983; Smith and Naylor 2001) and many smaller scale studies in single HEI (Huws, Reddy, and Talcott 2006; King and Aves 2012; Montague and Odds 1990).

There was no such positive relationship evident between UCAS points and degree attainment for the BTEC group. These findings support those of Huws and Taylor (2008), who also found that UCAS tariff points only predicted degree attainment for the A-Level group. This study and the present study both disagree with Gill and Rodeiro (2014) who found that all the qualifications investigated in their study were good predictors of degree outcome, including BTECs, although they do acknowledge that it was weaker than for A-Levels.

These results show that homogenising the student cohort is unhelpful for these kinds of analyses. The BTEC group, who had the highest UCAS tariff points on entry (Table 5.2), had lower degree attainment compared to the A-Level group. This appears to be negating the association seen between UCAS tariff points and degree outcomes when all qualifications are considered together, obscuring the significant positive association seen for A-Levels. Indeed, Huws and Taylor (2008) suggest that the tariff points for A-Levels and those awarded for the BTEC lack equivalence. The research by Gill (2016) supports these suggestions as their results indicated that the UCAS tariff overvalues BTECs. Using the model produced by Gill (2016), the maximum tariff for those taking a BTEC Diploma only (360) was equivalent to a tariff of just 200 from A-Levels. This suggests that a re-valuation of the tariff points allocated to BTEC Nationals may be necessary. According to Gill (2016), when UCAS determined the points scores for BTEC grades, no direct comparison was made with A-Levels. Instead, BTECs were compared to Advanced Vocational Certificates of Education (AVCEs) by the Expert Group. Indeed, given the quite different nature of the two qualifications, it would be difficult to make such comparisons. This could partially explain why BTECs where not a good predictor of degree outcome in this present study and the influence they had on the results when all qualifications were considered together or within the *Mixed* group, as I will now further discuss.

The analysis of the Mixed group of students indicated that there was not a significant association between Total UCAS Tariff and degree outcomes, but

there was a significant association between Tariff from 3 and degree class (Figure 5.11). However, the mid-point group had the highest proportion of 'good' degrees. As with all qualifications included in the analysis, it is likely that the points obtained from BTECs are negating the association between UCAS tariff points and degree outcomes, obscuring the significant positive association seen for A-Levels as previously discussed.

As with those students who have just studied BTECs, it is therefore more difficult to predict the degree outcomes of students who have studied a mixture of both types of qualification. Gill (2016) suggests that experienced admissions tutors may be able to adjust BTEC offers accordingly to account for the overvaluing of this qualification, but inexperienced admissions tutors may find this problematic. This approach also brings with it issues around consistency of approach and equity. More work is needed to investigate the equivalence of BTECs in terms of UCAS tariff points in the future and UCAS may need to reconsider the points scores for BTEC grades so they better align with A-Levels.

It is also important to note that in this study we are using degree outcomes as the dependent variable in this study. As previously detailed in Chapter 2, the reliability of degree results could be questioned in relation to how far the pattern of degree results is a function of a university, subject area or department (Barnett 1988), as well as time, due to HESA data indicating an increase in the proportions of students obtaining a first-class degree in recent years (HESA 2018). There are also no sector-wide agreements on what constitutes a first which contrasts with standardised grades at A-Level, this being reliant on external examiners.

Type of Level 3 qualification shall now be further discussed in the next section in terms of differential degree attainment.

7.3 Can differences in degree attainment be explained by the type of Level 3 qualification studied?

This section will firstly discuss the quantitative results considering the relevant literature, before discussing the qualitative results. A Bourdieusien lens will be used when discussing the qualitative results to facilitate my understanding of the differential outcomes in degree attainment relating to the type of Level 3 qualification studied.

7.3.1 Quantitative results

The statistical analysis undertaken in the present study shows that students were more likely to obtain a degree and get a higher degree classification if they had studied A-Levels, despite them having the lowest UCAS tariff points on entry to the course (Figure 5.4). The Mixed qualification group had lower degree outcomes, and the BTEC only group lower still. In support of these results were several of the studies reviewed in Chapter 2 including Gill and Rodeiro (2014), Rouncefield-Swales (2014), and McCoy and Adamson (2016). However, the more recent study by Huntley et al. (2017), which examined students on a Sports Development degree course, found that type of qualification had no significant effect on outcome measures, including final degree mark. This course does however differ in content to a Sport and Exercise Science course which focuses on the scientific aspects of sport and exercise, as it has a focus on supporting sport and physical activity participation across different groups of people.

7.3.2 Qualitative results

The focus of this chapter will now shift to the qualitative interview data as presented in Chapter 6. In contrast to the statistical data, the interview data allowed me to understand each student's early university experience from their own perspective and whether these differences were linked to the Level 3 qualifications they studied as a route into university as well as reveal any challenges that may explain the differential outcomes in degree attainment. It is within this section that I will challenge the conclusions often made about the ability and hierarchies of different students and the reasons often cited for differential attainment between A-Level and BTEC students.

7.3.2.1 Teaching and delivery

There are differences in the approach that colleges and HE take to the teaching and delivery of their curricula, and this will have influenced the study habitus of students. As detailed in Chapter 6 (6.4.1.1) most students in the current study appeared to favour tutorials and laboratory work over lectures because of the smaller group teaching, partly because that was what they were used to at college, and this was irrespective of prior qualification route. It was therefore not possible to clearly differentiate between qualification routes in the present study in terms of preferred delivery and teaching methods. Previous study findings by Myhill and Vennor (2019) suggest that A-Level students may have appreciated the academic ways of

learning more so than the vocational students, but this did not appear to be the case in this present study and students appeared to favour smaller group tutorials and labs regardless of their prior qualifications. In support of these results, Myhill and Vennor (2019) were also not able to determine clear differences between students of differing qualifications in the *Transforming Transitions* study.

7.3.2.2 Subject content

Students have different experience and familiarity with the subject content depending on the subjects and Level 3 qualifications they studied (6.4.1.2). Sport BTEC students, who were the largest proportion of students interviewed in the study by Myhill and Vennor (2019), displayed a well-rounded understanding of the subject but some reported feeling unprepared for the scientific content of the degree course and felt disadvantaged compared to the A-Level students. Several students in the present study also found the science aspect of the course challenging but this was not necessarily those that had studied BTECs. Difficulties with science content were also not confined to BTEC students in the Myhill and Vennor (2019) study; some A-Level students describing similar difficulties. It must be acknowledged though that this may depend on the actual A-Levels a student studied, although quantitative analysis undertaken in Chapter 5 does not suggest that any of the A-Level subjects included in the analysis had a beneficial effect. It was surprising that some A-Level students did find the science aspects challenging as it was always presumed to be the BTEC students that found the science difficult. Depending on what qualifications they did, as well as the subjects studied, the students in the present study will all have acquired different cultural capital as a result, and this will have influenced their transition into the study of Sport and Exercise Science at university.

7.3.2.3 Independent learning

Most of the participants acknowledged the increased requirement for independent learning at university (6.4.1.3). This was also a key challenge and concern in the participants of the *Transforming Transitions* study who had transitioned into HE from vocational backgrounds (Katartzi and Hayward 2019), and other studies which have drawn on student accounts (Briggs, Clark, and Hall 2012). Participants in the present study also indicated that academic support wasn't as readily available as they had been used to when studying for their Level 3 qualifications. There was also the idea that they

had to be more proactive themselves in seeking it, although for some there may be barriers or reluctance to seek or accept the support that is available. This resonates with the findings of the *Transforming Transitions* study (Myhill and Venner 2019). This was apparent with Jacob who was the only student interviewed that had studied a BTEC diploma. However, as this was the only student that had followed this route it cannot be concluded that this was because of the Level 3 qualification he had studied.

7.3.2.4 Assessment

A variety of assessment types have been included in the Sport and Exercise Science degree. This is partly to account for the different pedagogical approaches of the different qualification routes into HE and to ensure that students experience a range of authentic assessment types that will prepare them for a range of careers in sport and exercise science. It is impossible to say that this is typical of all such degrees in Sport and Exercise Science, even those which are BASES endorsed, as there will be variations in course content and structure, as well as approaches to teaching, learning and assessment between HEIs. However, as detailed in Chapter 1, BASES endorsement does mean a course meets criteria covering the necessary foundation of knowledge, technical skills and professional development competencies required to succeed in the profession.

The students interviewed did not share a consensus as to which assessment type they preferred (6.4.1.4), which agrees with the findings of the *Transforming Transitions* study (Myhill and Morris 2019) and reflects the diversity of their previous experience. However, in agreement with the qualitative findings of Hatt and Baxter (2003), the differences in preference and difficulties experienced by the students interviewed appeared to be related to what they were used to from their prior qualifications. According to Katartzi and Hayward (2019), examination-based assessments are a major source of pedagogic uncertainty for students with vocational backgrounds. In the present study, despite not having exams on his BTEC, Jacob said he didn't struggle with exams. However, there were reports from several students, for example Chloe (female, white, Mixed, 6th form) and Isaac (male, BME, A-Levels, 6th form), who had studied A-Levels but still experienced anxiety from examination-based assessments with the practical examination. Therefore, exam concerns and anxiety may also be dependent upon the type of examination-based assessments students have previously been used to.

It was evident in the present study that different study pathways, curricula and qualifications studied accrue differential benefits for learners. The student accounts highlight differences in the students' early university experience which partially relate to the Level 3 qualifications they had previously studied. The Sport and Exercise Science course team have been encouraged to think creatively in their teaching, learning, and assessment practices to accommodate the different needs of the Sport and Exercise Science students depending upon their qualification routes as well as the industry requirements. This is good practice and should be commended, however, in agreement with the *Transforming Transitions* study (Banerjee and Myhill 2019), it was difficult to attribute teaching, learning, and assessment preferences firmly to a particular qualification route and this could have contributed to those difficulties.

7.3.2.5 Cultural capital and habitus

Murphy (2009:5) suggests that cultural capital, "which involves prior knowledge and understanding of expectations, conventions and procedures of the formal learning contexts to be found in higher education institutions" is often used to explain the difficulties faced by non-traditional entrants. Researchers such as Bamber and Tett (2000) suggest that traditional students, such as those with A-Levels, find it easier to transition into university than non-traditional students whose route into HE is "more likely to be characterised by uncertainty". Bearing in mind the suggestions of both Murphy (2009) and Bamber and Tett (2000), the challenges and concerns highlighted by many of the students in the current study, regardless of qualification route, around the lack of support and independent study as well as the different teaching, learning and assessment types could be explained by a 'mismatch' between their own cultural capital and habitus and the university field that they have entered, this term being preferred to 'deficit' that others have previously used. This is despite the efforts of the course team to address this and may reflect just how much support students got during their previous Level 3 studies.

Jacob (male, BME, BTEC, FE College) gave an account which suggested he did not appear particularly comfortable in the university environment but was persevering (6.4.3). Jacob appeared to be feeling like a 'fish out of water' due to a 'mismatch' between his own capital and habitus and the field of the university. As detailed in the literature review this is not an uncommon feeling for students from non-traditional backgrounds such as Jacob (Reay, Crozier, and Clayton 2009; Reay, Crozier, and Clayton 2010;

Webber 2014). However, it was evident from the interviews that Jacob and the other participants accumulated cultural capital and adapted their habitus during the first year helping all of them to progress into year 2 of the degree, evidence of the adaptive nature of the habitus. As described in Chapter 6, the students' experiences of the transition to university become internalised thereby modifying their habitus.

Despite previous research and the statistical data in the present study showing that the students who had studied BTEC had poorer degree outcomes compared to those with A-Levels, the interview data offered no obvious reason in terms of cultural capital and study habitus that would explain the differential attainment between A-Level and BTEC students. Admittedly, the student sample will not have helped as it was relatively small and there was only 1 student who had studied only BTEC. Furthermore, Gartland and Smith (2018) in their research on student transition into HE, found that pedagogies and practices on BTEC courses can effectively support students who had not previously considered university to develop relevant social and cultural capital. This could be a reason there were no obvious differences in the present study. Schooling, including post-16, contributes to the development of habitus and the acquisition of social and cultural capital, and therefore it may be that where the students studied is important

As previously outlined in Chapter 6, 6th forms and FE colleges are both in the field of post-16 education but are positioned differently within that field and prepare students differently for HE (Gartland and Smith, 2018:638). Gartland and Smith found that the institutional habitus of the 6th form and FE colleges, and their positioning as institutions for different kinds of learners, impacted in distinct ways on students' confidence and learning identities. A key finding from their study was that the 'institutional habitus' of the 6th form college was supporting BTEC students' learner identities and the development of their identities as potential HE students. A natural progression from 6th form college to university was evident in the study by Gartland and Smith and included those students who had not previously considered HE, this not appearing to be the case in FE colleges. Therefore, it could be suggested that the institutionalised cultural capital and habitus of 6th form is better aligned to university than FE colleges allowing a better transition into university and resulting in better degree outcomes. In the present study, all students apart from Jacob who studied a BTEC Diploma, studied either A-Levels or an A-Level/BTEC mix in a 6th form college environment. There appeared to be a strong focus in 6th form colleges on

progression to HE and students appeared to well informed and prepared, and more confident about progression to HE than Jacob who went to an FE college. Although conclusions cannot be drawn from the present study on FE as there was only one student who had attended an FE college, Jacob did not appear to have been particularly well supported in his progression to HE by his college and was actively discouraged from going to university. However, consideration must be given to the fact he also didn't appear to have the family capital and habitus to direct him towards HE either. Results do however suggest that the wider education programme and its context might be as important as the Level 3 qualification a student studied.

It is important to note at this point that the differences in student habituses, which are strongly influenced by the family capital and habitus, will have influenced which post-16 route they embarked upon in the first instance; the 6th form, for example, being the route taken for those students who already have capital and habituses more closely aligned to that context.

Gartland and Smith (2018) reported a general view that BTECs are viewed negatively, particularly by A-Level students. This was also mentioned by several students in the present study (6.3.2.1) and evidence how parental traditions and the family habitus influence the type of qualifications the students studied. Gartland and Smith (2018) suggest that the negative view of BTECs could be linked to the fact they are not universally recognised by universities. Despite the relatively negative opinion of BTECs from some students in the present study, BTECs were studied alongside A-Levels by three of the students, Roberto (male, BME, 6th Form), Chloe (female, white, 6th form), and Charlotte (female, white, 6th form). Roberto and Chloe only took BTEC Sport because A-Level PE wasn't offered by his 6th form college, but Chloe and Charlotte chose to study BTEC Health and Social Care. All 3 students appeared to enjoy the BTEC qualifications they had studied. It is important to also consider the Mixed group of students in the cohort analysis at this point as they appeared to have degree outcomes that sat between the A-Level and BTEC group. Some of this group may have been like the mixed-qualification students interviewed in this present study, that is they are essentially A-Level students who have done BTECs to support their future degree and/or career aspirations, and the likelihood is they did them in a 6th form college. There may also be students in the Mixed group that have picked BTECs in the first instance and then have taken A-Levels alongside to support their future degree and/or career aspirations but studied them in an FE college. If my theory was correct, in that students would benefit more from

doing both types of qualifications together, then you may expect the Mixed group to have higher degree attainment than A-Level students, but this is not the case. This brings me back to the previous point I made that where a student studies their post-16 qualification is more important than the qualification studied. Based upon that assumption you would expect students that study a mix of A-Level and BTEC qualifications in an FE college to do less well than those that study them in a 6th for college; an interesting idea that may warrant investigation in the future.

Mackenzie and Morris (2019:107) suggest that the way vocational qualifications may be viewed by others can affect confidence and sense of belonging at university as well as affect a students' self-perception, learner identity and shape their individual habitus. Furthermore, progressing into HE from differently positioned colleges in a stratified system, can act in a positive way for some students by reinforcing their learner identity, or act negatively by damaging it (Gartland and Smith 2018). Therefore, the positioning of students within a stratified field of post-16 educational provision is likely to have influenced students' identities, regardless of their learning experience when studying their post-16 qualifications (Gartland and Smith 2018; Reay et al. 2010). This will further shape a student's habitus and will define their 'parameters of possibilities' (Reay, Crozier, and Clayton 2010), that is what they think they can achieve in the future. This may partially explain Jacob's transition into university and why he had very low aspirations in terms of his degree outcome compared to all the other students interviewed (6.4.3).

According to Myhill and Morgan (2019), prior research has indicated that those students with vocational qualifications, such as BTECs, would be deemed to have the characteristics of HE WP target groups. They stress the importance of not making simplistic causal assumptions based on the possession of vocational qualifications when other factors, for example social class and ethnicity, may be equally important. Social class and ethnicity were included in the quantitative analysis of the present study for that reason. Social class and ethnicity shall now be considered along with gender in the next section.

7.4 Can differences in degree attainment be explained by other student demographics such as gender, ethnicity, and socio-economic class?

In addition to prior educational achievement and type of qualifications studied, gender, ethnicity and social class may also be contributing factors to differences in attainment and there is likely to be intersectionality between them.

7.4.1 Gender

In support of recent studies (Woodfield 2014), including that of Huntley et al. (2017) on Sports Development, gender appears to influence degree attainment in the present study. The proportion of females obtaining a degree and 'good' degree in this present study was slightly higher than males. Although this was just outside of significance when analysed as a univariate model (Figure 5.12) and when controlling for the other independent variables (Table 5.5), the small samples size of females needs to be taken into consideration. However, it must also be noted that a higher proportion of females studied A-Levels and Mixed qualifications compared to males who had a higher proportion studying BTEC. Therefore, some of the effect of gender on degree classification could be partly related to the Level 3 qualification studied rather than gender itself, the type of Level 3 qualification studied being determined by the student gender. This would then minimise the gender effect so when the other independent factors were accounted for it became less significant, as in this present study.

It was difficult to ascertain any reasons for gender differences in the interview data of the present study. No specific questions relating to gender were asked, although had anything relating to gender arisen during the interview, I may have questioned this further had it been of relevance to the present study.

According to Bourdieu's theory of cultural reproduction, acquisition of cultural capital and the consequent access to academic rewards is largely dependent on the cultural capital passed down by the family. However, gender has also been suggested to be one of the main stratifying factors in society (Jacobs 1996). Even though males and females may have the same cultural training if they are part of similar class backgrounds, their habitus may be different because of their socialisation and the views they form of

the opportunities available to them. The results of studies by Dumais (2002) and Sullivan (2001) suggest that differences in cultural capital and habitus that were observed in their studies, being higher in females than males, contributed to the higher attainment of females. Therefore, the differences in degree outcomes in the present study could be due to differences in the cultural capital and habitus between the genders but unlike the aforementioned studies by Dumais (2002) and Sullivan (2001) they have not been quantified. Indeed, quantification of cultural activities that contribute to cultural capital is not an easy and straight forward task for any study.

Another suggestion for females doing better than males could be that the habitus' of the females is more closely aligned to the university field they are in. This doesn't mean that I have discounted the importance of cultural capital, as habitus and cultural capital are not independent of each other. However, the fact the institutional capital in terms of academic credentials, as indicated by UCAS points on entry, is not different between male and female students in this present study, suggests that habitus may be more important at this stage in their education. However, from the interview analysis in the present study, identifying gendered differences in habitus that could result in differences in degree outcomes was challenging.

Gendered differences as a result of sporting participation could be one area of difference. As detailed in Chapter 6 (6.2.1), interview analysis revealed that sport and other physical activities were the main interests and hobbies of the students interviewed, and thereby 'sporting capital' has contributed significantly to the overall cultural capital of all students. However, there were gender differences in the type of activities students were involved in with five of the six female students involved predominantly in individual activities. It must be acknowledged once again that this is a small sample of students. Success in individual sports such as dance, swimming and gymnastics depends on the personal motivation of the individual athlete. Those who excel at individual sports often find satisfaction in pushing themselves to achieve personal goals with self-reliance and personal accountability being critical for success. In team sports, the preference of the males in this present study, success or failure in competition depends on many variables but most importantly team sports promote the virtue of working together thereby avoiding sole responsibility for success or failure. The sporting activities that the students engage with will have shaped, and been shaped by, their habitus. The perfectionist tendencies and study habits displayed by several of the female students towards their studies may be

related to their individual sporting activities. This is, arguably, an example of where the 'transposable dispositions' of the habitus can be seen played out in quite different contexts, and according to the transferability inherent in the notion of habitus, these may shape study habits and academic performance. Therefore, it may be that the dispositions and habitus of the females, shaped by the individual sports they were involved in, is more aligned to the university field and the study habits required for academic success.

7.4.2 Ethnicity

Ethnicity is also associated with degree attainment in the present study as a greater proportion of white students obtained a degree and 'good' degree compared to BME students (Figure 5.13). There was an association between ethnicity and type of Level 3 qualification studied, with BME students more likely to study BTEC and white students were more likely to study A-Levels (Figure 5.16). Both findings are supported by previous literature reviewed (Leathwood and Hutchings, 2003; Rouncefield-Swales, 2014).

Due to intersectionality between factors, it was therefore important to control for the other independent variables measured in the study. The association between ethnicity and degree attainment was just outside of significance when those variables were controlled for (Table 5.5), but small sample size may have contributed to this as there are many examples of studies that have found white students have significantly better degree outcomes than BME students even when a variety of possible controls are allowed for (Broecke and Nicholls 2006; Connor 1996; HEFCE 2014; HEFCE 2015; Richardson 2008). The effect of ethnicity on degree classification could therefore be partly related to the Level 3 qualification studied rather than ethnicity itself, the Level 3 qualification studied being determined by the student ethnicity. This would then minimise the ethnicity effect so when the other independent factors were accounted for it becomes less significant as is the case in the present study.

However, whilst the findings of my own study echo those of others, the interview data did not offer any insight into the reasons why ethnicity affects degree attainment. This could be due to the student sample, including the relatively small size, but as detailed in Chapter 4 (Table 4.1) six of the nine students interviewed were BME so well represented in the group. It could also be due to the interview questions asked as there were no specific questions with regards to ethnicity. One reason for this was because I was

more concerned with the effect Level 3 qualification route had on attainment. In addition to this I was not comfortable directly asking questions relating to ethnicity, although had this subject been brought up during any of the interviews, I would have questioned this aspect further.

The literature shows the cause of differences in degree attainment as result of ethnicity are complex and not fully understood. The BME students in the present study did not provide any suggestions that they were less satisfied with their degree studies than the white students, a possible cause of differential attainment suggested by Mountford-Zimdars et al. (2015). It has also been suggested by Miller (2016) that differences in attainment observed between BME and white students may simply be due to social class, as it has been shown that many BME students come from deprived areas, areas of low HE participation, and working-class family backgrounds. However, in the present study results for ethnicity were controlled for other factors including SEC and POLAR4 so there was no evidence from the quantitative analysis to support this theory either. Roscigno and Ainsworth-Darnell (1999) suggested that the habitus of a BME student may be different to white students because their socialisation and the views they form of the opportunities available to them. BME students are not able to mobilise their capital in the field of HE in the same way white students can or they get less return for their capital resources in terms of academic achievement all of which could explain differences that may still occur even when social class is controlled for. These could be plausible explanations as to why the degree attainment of white students in the present study is better than BME students, but I cannot make conclusions based upon the interview data analysed. Jacob, one of the 6 BME students interviewed, studied a BTEC diploma and was the only student who did not pass the first year without resits. He had struggled with aspects of written work and was often reluctant to get help and guidance when required. He was the only student not aspiring to get a 'good' degree but just pass (6.4.3). The reasons for his lower achievement could be due to being BME and therefore those reasons suggested by Roscigno and Ainsworth-Darnell (1999) may offer some explanation, but could also be related to gender, social class and Level 3 qualification, all factors that have been shown to affect attainment. The interview analysis did not reveal any differences in the student's capital and habitus as a result of ethnicity that could help explain the lower degree outcomes of BME students in the data analysed.

7.4.3 Social Class

When analysed as univariates, SEC representation in HE did not have a significant association with degree classification (Figure 5.14), however POLAR4 classification did (Figure 5.15). However, the association between POLAR4 and degree class was not significant when controlling for the other independent variables (Table 5.5) and therefore was not included in the final regression model. As previously reviewed, research has frequently reported that the social class background of students is an associated factor in differential degree outcomes, even when controlled for other factors (Gill 2018; HEFCE 2013; HEFCE 2014). For example, HEFCE data analysis using POLAR3 categorisation as the measure of social class reported similar findings as the present study in that students from areas of low participation (Quintile 1) were less likely to gain a degree compared to the most advantaged (Quintile 5); a similar pattern seen with the attainment of 'good' degrees (HEFCE 2013; HEFCE 2014). The results of the statistical analysis not supporting previous findings was therefore quite surprising.

There are several reasons that could provide an explanation for the statistical findings in the present study. One could be the sample size as it was a relatively small sample size compared to the others reviewed, and for SEC there was lots of missing data. Another reason could be the actual categorical measures used in this study to define social class. Although categorical approaches to defining social class are widely used, they have also been widely criticized (Archer 2003:9). The method employed in this present study uses occupational classifications of parents if the student in under 21 and can be problematic in modern society where people may change jobs regularly or do not live in 'traditional' households. Furthermore, such occupational classification methods are often based on the male occupation and do not consider families whereby men and women may engage in differently classed employment (Archer 2003:10). Using geodemographic profiling, such as with POLAR4, has also been suggested to be problematic. The characterisation of residential areas can be criticized as being too broad to adequately account for inner city and urban areas, where there is variation in the population and housing within a small geographical area (Archer 2003:10). Therefore, it is acknowledged that social class cannot necessarily be reduced to occupation, and class positions are not homogenous or easy to quantify (Archer 2003:11)

A plausible explanation for POLAR4 being significant when assessed as a univariant but not when controlled for the other factors could be related to

the Level 3 qualification studied. As previously detailed in the literature review, it is not just that working-class young people do less well than their middle-class peers in the same examinations, they take different educational routes and qualifications in the first place (Leathwood and Hutchings 2003:137). Leathwood and Hutchings (2003:139) state that of those 16–18-year-olds who remain in post-16 education the divisions of the schools and exam systems are replaced by which FE provider they attend; the 6th forms more likely attended by the middle-class students taking A-Levels and the working-class students more likely to be studying vocational qualifications at FE colleges. In support of previous findings, including Rouncefield-Swales (2014), the present study found that students from the higher quintiles are more likely to have studied A-Levels and those from the lower quintiles BTECs. The effect of POLAR4 on degree classification could therefore be related to the Level 3 qualification studied rather than POLAR4 itself, the Level 3 qualification studied being determined by which POLAR4 Quintile a student lived in. This would then minimise the POLAR4 effect so when the other independent factors were accounted for it becomes insignificant.

Despite the results of the statistical analysis of the cohort data, the interview data did reveal potential differences in social class that were associated with differences in the cultural, social, and economic capital acquired by the students that could influence attainment. Class was 'hinted' at by the students in terms of their upbringing and family situation, and the school/college they attended. Roberto, for example, detailed a particularly difficult upbringing with his single mum and siblings. Post-16 working-class and minority ethnic students are more likely to be in schools in poorer neighbourhoods with lower resources than their middle-class peers and are more likely to be in FE rather than 6th form colleges (Leathwood and Hutchings 2003). Jacob (male, BME, BTEC) was the only student who attended an FE college and the narrative Jacob provided suggested he was from a working-class background. Evidence of a more middle-class upbringing could be demonstrated by the mobilisation of economic capital to support educational development. Examples of this included private schooling (Kate; female, BME, A-Levels, 6th form), moving to a new house for a school catchment area (Charlotte; female, white, Mixed, 6th form), and private tuition (Poppy; female, BME, A-Levels, 6th form).

In their 2007 study, Gallacher et al. highlight the complex ways a students' habitus is formed and how habitus impacts upon students' attitudes towards,

and successes in, education and that those with a middle-class habitus appear to experience far less 'friction' when introduced into educational fields where middle-class culture often predominates (Gallacher et al. 2007). Possible social class differences that could have influenced the habitus and cultural capital of the students and their attitudes and success in education could be seen in the present study. Whilst all students had family members who had been to university, only four of them had one or both parents who had been to university, with three others having siblings. Jacob was the student who had the least experience of HE as neither his parents or siblings had degrees so didn't have the family capital and habitus to 'push' him towards HE. Having family members who have experienced HE is a form of cultural capital that many working-class youngsters may lack (Leathwood and Hutchings 2003) as data has shown that students from lower SEC groups are less likely to have had a parent who went to university compared to the upper SEC groups (Connor et al. 2001). However, going to university is viewed as the natural and expected progression for many middle-class young people (Allatt 1996), it is ingrained in the family habitus. It is often reported that in working-class groups parents support their child in whatever they want to do but don't 'push' them in a particular direction (Reay and Ball 1998). A strong parental influence was evident for some of the students in this present study, particularly if they themselves had gone to university, but all students appeared to have families that supported their decision to attend university though precisely how this played out depended on the prior experience and family habitus more generally. Furthermore, Kate's (female, BME, A-Levels, 6th form) Ghanaian parents are both teachers so educational values would be central to the family habitus; she would have what Bourdieu called 'a feel for the game', which would also give her an advantage in educational fields.

As detailed in Chapter 2, divisions such as class, race and gender are understood as meaningful categories and identities by many people in their lives. However, the boundaries of class are not always clear and interact with both race and gender (Archer 2003:20) making intersectionality between those factors in the present study inevitable. Indeed, there was a degree of interaction between the independent factors in the present study (Section 5.2.7) in relation to Level 3 qualification and ethnicity (Figure 5.16), gender (Figure 5.17), and POLAR4 (Figure 5.18). The findings of this study appear to be in agreement with Kinderkhedia (2019), who concludes the *Transforming Transitions* project by suggesting that BTEC students represent some of the factors which can contribute towards differential outcomes in

attainment that have been shown in previous studies such as areas of low participation in HE and demographic groups that are associated with lower attainment, as well as being male and of an ethnic minority (Bhattacharyya, Ison, and Blair 2003; Masardo and Shields 2015; Mountford-Zimdars et al. 2015).

7.5 Chapter summary

This section will summarise the discussion by drawing on the points from the three sub-questions in sections 7.1-7.3 to answer the over-arching research question:

In what ways do academic and social factors predict degree attainment in BSc Sport and Exercise Science at a post-1992 university and how can this be explained?

In answer to the over-arching research question, academic and social factors only partially predict degree outcomes in BSc Sport and Exercise Science at a post-1992 university, with the academic factors Tariff from 3 and Level 3 qualification being the strongest, although gender and ethnicity are also important. However, as detailed in Chapter 5, the model only explains 28% of the variation and so it is acknowledged a complex array of additional unexplained factors are also involved.

In terms of how this can be explained, the interview data did not provide a clear explanation in terms of cultural capital and habitus to explain the differential attainment observed between A-Level and BTEC students in the statistical cohort data. This could be related to the student sample but also demonstrates a complex array of academic and social factors that influence a student's degree outcome and the intersectionality between them. The challenges and concerns highlighted by many of the students in the current study around the lack of support and independent study as well as the different teaching, learning and assessment types could be explained by a 'mismatch' between their own capital and habitus and the university field that they have entered. However, it was hard to attribute any learning and assessment preferences firmly to qualification route. Schooling, including post-16, increasingly adds to the process of habitus building, social and cultural capital acquisition, and therefore it may be that where the students study their qualifications is more important than the Level 3 qualification studied. The institutional habitus of 6th form and FE colleges, and their positioning as institutions for different kinds of learners, may impact on

students' confidence and learning identities in distinct ways, with the 'institutional habitus' of the 6th form college better supporting students' learner identities and the development of their identities as potential HE students (Gartland and Smith 2015). Evidence in the present study suggests the institutionalised cultural capital and habitus of 6th form students may be better aligned to university than FE colleges allowing a better transition into university and ultimately resulting in better degree outcomes. The choice of which Level 3 qualification to study and which type of post-16 FE provider a student chooses, is influenced by family capital and habitus, which are themselves influenced by social class and ethnicity. Students, when it comes to post-16 choices are therefore likely to be on pre-determined pathways.

Identifying gendered differences in capital and habitus that could explain differences in degree outcomes in the present study was challenging. The sporting activities that the students engage with will have shaped, and been shaped by, their habitus. Those students who excel at individual sports often find satisfaction in pushing themselves to achieve personal goals with self-reliance and personal accountability being critical for success. The perfectionist tendencies and study habitus displayed by several of the female students towards their studies may be related to them being involved in individual sporting activities. This is, arguably, an example of where the 'transposable dispositions' of the habitus can be seen played out in quite different contexts, and according to the transferability inherent in the notion of habitus, these may shape study habits and academic performance. Therefore, it may be that the dispositions and habitus of the females are more aligned to the university field and the study habits required for academic success.

Identifying ethnic differences in capital and habitus from the interviews that could explain the differential attainment found in the statistical analysis was also challenging. No direct questions pertaining to ethnicity were asked and neither was it mentioned by the students interviewed. It has been suggested that the habitus of BME students may be generally different to white students because their socialisation and the views they form of the opportunities available to them; they are not able to mobilise their capital in the field of HE the same way a white student can; or they get less return for their capital resources in terms of academic achievement (Roscigno and Ainsworth-Darnell 1999); all of which could explain differences that may still occur even when social class is controlled for. These could be plausible explanations as to why the degree attainment of white students in the present study is better

than BME students, but I cannot make conclusions based upon the interview data analysed.

SEC and POLAR4 were not included in the regression model as they were weak predictors of degree outcomes in the present study, despite social class being found to be significant in others. Possible social class differences that could have influenced the cultural capital and habitus of the students, and thus degree outcomes, could be seen in the present study but were not detailed by the students as affecting their educational attainment. The reason social class was a weak predictor of degree outcome in the present study is unknown, but possible reasons could include the categorical approaches to defining class used in the study, and the boundaries of class not always being clear. Furthermore, it is likely that much of the effect of social class is embedded in the choice to do either A-Levels or BTEC in the first place. This could also be the case for ethnicity, and possibly gender too.

8 Conclusions

8.1 Introduction

This final chapter concludes the thesis by considering the study's research questions and detailing the contribution to knowledge made by my research. This is followed by my recommendations in terms of implications for practice and future research. I will then offer some reflections on the study and the research process, including the study's limitations. My final thoughts on my EdD journey will conclude this chapter.

8.2 The research questions

This research was undertaken within the context of post-1992 university where an increase in the number of BTEC students, and pressure to accept students with significantly lower grades due to challenging recruitment targets, have both been suggested as possible reasons for poor progression and attainment on BSc Sport and Exercise Science. However, these discussions have often been based on perceptions and prejudice, demonstrating the need for evidenced-based admissions decisions and a better understanding of the factors that influence degree outcomes.

Much of the research in this area has been undertaken in pre-1992 universities where the predominant entry qualification has been A-Levels. Less research has been done at post-1992 universities or considered other qualifications such as BTECs, and Sport and Exercise Science in particular has not been investigated. The contextual differences and varied purposes of the existing research makes it difficult to use the findings as the basis for making local admissions decisions regarding Sport and Exercise Science, context matters. Much of the relevant research focuses on quantitative data analysis and has identified several student characteristics that may influence degree attainment. However, most of the studies provide little insight into students' lives and understanding why these factors influence attainment as few studies have obtained any qualitative data. It was important that this study went further than those who had merely looked at input-output patterns in identifying which factors influence degree attainment by investigating why.

Consequently, the following over-arching research question and sub-questions were developed for this research:

In what ways do academic and social factors predict degree attainment in BSc Sport and Exercise Science at a post-1992 university and how can this be explained?

- What is the association between prior educational attainment in Level 3 qualifications and degree attainment?
- Can differences in degree attainment be explained by the type of Level 3 qualification studied?
- Can differences in degree attainment be explained by other student demographics such as gender, ethnicity, and socio-economic class?

Using a mixed methods study design, and informed by Bourdieu's theory of practice, my research aimed to identify academic and social factors that predict degree attainment in Sport and Exercise Science within my own post-1992 university. The data analysis in Chapters 5 and 6 highlights 11 important concluding statements which answer these research questions, 1-8 being related to the statistical analysis of the cohort data and 9-11 being explanatory and drawing on the interview data:

1. Academic and social factors only partially predict degree attainment.

UCAS Tariff from 3, Level 3 qualifications, gender and ethnicity, are the predictors included in the final regression model. However, this model only explains 28% of the variation in degree outcomes so there remains a lot of unexplained variance in the model. Trying to explain the remaining 72% of the variance is complex and will include factors not considered in the present study including many that are not easy to measure and many unknown variables.

2. Academic factors were the best predictors of degree attainment.

Both UCAS tariff points and type of Level 3 qualification are both significant predictors of degree classification. With regards to UCAS tariff point measures;

3. UCAS Tariff from 3 is a better predictor of degree attainment than Total UCAS Tariff.

This indicates quality and not quantity of UCAS tariff points is more important when predicting degree outcomes. UCAS Tariff from 3 was therefore chosen to be included in the regression model.

The overall outcome of the regression model predicts that;

4. Students who have higher Tariff from 3, are female, white, and have studied A-Levels have better degree outcomes.

This is in comparison to those with a lower Tariff from 3, are male, BME, and have studied BTEC only. Those with Mixed qualifications (A-Level and BTEC) fall in between those students who studied A-Levels or BTECs only.

5. Gender was not a significant predictor of degree attainment but is still an important variable to consider in the prediction of degree attainment.

Despite being just outside of significance (at the 5%) level when analysed as a univariate and when other factors (predictors) were taken into account during the modelling, gender is included in the final regression model to predict degree classification outcomes. Small sample size may have contributed to gender falling just outside of the 5% significance level.

6. Ethnicity was not a significant predictor of degree attainment but is still an important variable to consider in the prediction of degree attainment.

Despite being significant (at the 5% level) when analysed as a univariate, when the other variables (predictors) where taken into account ethnicity fell just outside of significance. However, ethnicity was included in the final regression model to predict degree outcomes. Small sample size may have contributed to ethnicity falling just outside of the 5% significance level in the regression model.

7. Social class was not a significant predictor of degree classification.

Social class, as determined by SEC, was not a significant predictor of degree classification in the model. When analysed as a univariate POLAR4 was significant at the 5% Level, but when the other variables (predictors) where taken into account was not significant. Small sample size may have contributed to this outcome. Other possible reasons for this could include the categorical approaches to defining class used in the study, and the boundaries of class not always being clear. Concluding point 8 also offers a further explanation for this lack of significance.

8. BTEC students represent some of the intersectionality of factors that contribute to differential degree outcomes.

BTEC students were more likely to be BME, male, and from a lower POLAR4 quintile and therefore it is likely that much of the effect of social class is embedded in the choice to do either A-Levels or BTEC in the first place and may also explain the lack of significance at the 5% level when other predictors are accounted for. This could also be the case for gender and ethnicity.

Concluding points 9-11 draw on the interview data to provide explanation for the statistical outcomes.

9. The intersectionality of the different cultures, genders and backgrounds of students impacts on their educational trajectories.

However, there was no simple explanation as to the reason for differential attainment as a result of Level 3 qualification, or any of the other factors investigated, when you look at the individual level data. This is because a complex array of factors are likely to be involved. Although social class was not included in the final regression model, differences in social class were evident between the students interviewed.

10. The institutionalised cultural capital and habitus of 6th forms may be better aligned to university than FE colleges.

Prior study in 6th form appears to facilitate better transitions to university. Consequently, where a student has studied their Level 3 qualifications may be an important influence on experience of transition, preparedness for various aspects of high-level study and therefore of degree attainment.

11. Sport and physical activity contribute to the overall capital and habitus of all students interviewed in this study.

All of the students in the study have a history of active participation in sports and this will have contributed to both cultural and social cultural capital. Traits acquired through such participation differ according to the type of sport, for example individual or team sports. Such traits, as part of the transferable dispositions of the habitus, could be relevant to understanding student's academic engagement, experiences, and outcomes. The dispositions and habitus of the females in the present study, which may have been shaped by the individual sports and activities they were involved in, may be better aligned to the university field and the study habits required for academic success.

8.3 Contributions to knowledge

Beyond answering the specific research questions summarised in the previous section, the contributions to knowledge of the research findings include contributions to the fields of university admissions, transition, predictors of degree outcomes, and inequalities in degree attainment. This present study, being undertaken at a post-1992 university, has included students from a wider range of entry qualifications and backgrounds than many of the other studies in the field which have been undertaken in research intensive pre-1992 universities who predominantly recruit A-Level students. This study is aligned with the findings of others in that entry qualifications are significant predictors of degree outcomes (HEFCE 2003; HEFCE 2014; HEFCE 2015; Naylor and Smith 2004; Smith and Naylor 2001), A-Levels are a better predictor than BTECs (Gill and Rodeiro 2014), and BTEC students do less well than A-Level students (Huws and Baxter 2008; Huws and Taylor 2003; Rouncefield-Swales 2014). The differential analysis undertaken in the present study confirmed that there are also social factors which are important to the prediction of degree attainment, including gender (Huntley et al. 2017; Woodfield 2014) and ethnicity (Broecke and Nicholls 2006; Connor 1996; Richardson 2008). Furthermore, the statistical outcomes in the present study suggest that BTEC students represent some of the intersectionality of factors that contribute to differential outcomes, as previously suggested by the *Transforming Transitions* project (Kinderkhedia 2019), as they tend to be from lower POLAR4 quintiles and a more likely to be BME and male. It is important to note that whilst this study has confirmed these results in a post-1992 HEI, the findings of this study are the first time these results have been found for Sport and Exercise Science.

Most of the studies in this field have only involved statistical analysis and have been dependent on outcome data to investigate entry qualifications, and other factors, on degree outcomes. However, the present study goes further as it uses a mixed-methods design. The qualitative aspect enhanced the study by providing rich student accounts that could be used to understand some of the reasons for the differential outcomes observed in the statistical analysis. Furthermore, the use of a Bourdieusian theoretical framework is also unusual to this area of research and has provided new insights into understanding the factors affecting degree outcomes and disparities in attainment. According to the transferability inherent in the notion of habitus, the traits associated with different types of sport, for example individual or team sports, may also be relevant to understanding

a student's academic outcomes and study habits as demonstrated in the present study. This would be an interesting area to research more specifically in the future.

This study has shown that the distinction between students with different entry qualifications is not clear cut. Issues related to transition into university and degree outcomes are not simply due to entry qualifications. Therefore, the findings of this present study challenge the assumptions that some students do badly because they have done BTECs; the reality is more complex than that. Entry qualifications are only part of the story, with other factors such as gender, ethnicity, social class, and the intersectionality between them, influencing the educational trajectories of students. Doing A-Levels or BTECs is not random choice as lots of social factors are embedded in these choices. Where a student undertakes their post-16 studies is also important. In support of the findings of Gartland and Smith (2018), evidence from the present study shows how the institutionalised cultural capital and habitus of 6th form students may be better aligned to university than those from FE colleges, thereby allowing smoother academic transitions and ultimately leading to better degree outcomes. It may also be that the Sport and Exercise Science course assumes that students come with the things that (only) A-Levels provide and so penalises those that don't come with those things, as Bourdieu explained:

> By doing away with giving explicitly to everyone what it implicitly demands of everyone, the educational system demands of everyone alike that they have what it does not give. This consists mainly of linguistic and cultural competence…
> (Bourdieu 1977:494).

This assumption will continue to reproduce the inequalities in attainment seen in the present study as well as others. The implications for practice detailed in the recommendations section in this chapter will outline how this may be avoided in the future.

Not only has this study made the contributions to knowledge that I have detailed above, but it has also contributed to my own knowledge and way of thinking. Rather than approaching research questions in a purely positivistic way, I now approach them in a more pragmatic fashion and consider a variety of methodological approaches to best answer those questions. For some time, I struggled with Bourdieu's theoretical concepts and was hesitant about applying his theory of practice in this research. However, I now find I am using his concepts all the time. Just having the key concepts of capital,

habitus, and field as part of my thinking and vocabulary has been invaluable. For example, Bourdieu's ideas are framing my leading of discussions on attainment disparities within my own university and in my contributions to the National Education Opportunities Network (NEON) 'Supporting BTEC students' working group of which I am a member. I will be presenting my research findings within this forum in the near future. This working group has also started to consider the new T-Level qualifications that are rolling out across the country over the next few years. The knowledge I have acquired during my own research will be useful when considering the educational needs of T-Level students progressing into HE who, like BTEC students, will be classed as being from non-traditional backgrounds (i.e. not A-Level).

8.4 Recommendations

As well as the contributions this study has made to knowledge as outlined above, this research will also contribute to practice. I explain these below and then consider possibilities for future research.

8.4.1 Implications for practice

The implications for practice outlined in this section include admissions decisions, student support, pedagogy and curriculum, and HE and FE partnerships.

8.4.1.1 Admissions decisions

This study suggests that for BSc Sport and Exercise Science, admission to the course should continue to be informed by Level 3 qualifications, including both type of qualification and outcomes, as this is the strongest predictor of degree attainment we currently have. Additionally, UCAS Tariff from 3 (A-Levels or equivalent qualifications) should continue to be used as the basis for entry to the course rather than Total UCAS tariff points. I would recommend that the UCAS tariff from 3 during clearing and confirmation is maintained as near to the original offer as possible, as those students with the higher points have better degree outcomes particularly when they have studied A-Levels only. However, the admissions tutor may continue to consider reducing the entry points for A-Level students as despite entering the course with the lowest UCAS tariff points, A-Level students were more likely to obtain a higher degree classification than BTEC or Mixed students. Mixed students are more difficult to assess, and consideration needs to be

given to the qualification mix (number of A-Levels vs. BTEC), the subjects studied, and which post-16 provider was attended. Decisions made about Mixed students need to be on an individual basis and this is where expert judgement is required. With a clearer understanding of the situation from this research these complex judgements can now be better informed. Due to the likelihood of the BTEC qualifications being overvalued in terms of UCAS Tariff points, I would not recommend the grades be lowered during clearing and confirmation.

8.4.1.2 Student support, pedagogy, and curriculum

Whilst the statistical analysis in the present study shows differential outcomes between the different factors investigated, the interview data illustrates that the distinctions between different groups of students are complex. This presents a challenge for the Sport and Exercise Science course director and academic team who must teach and support a diverse group of students. Successful degree progression and outcomes are linked to how well a student's academic and social background (capital) and dispositions (habitus) align to the university. However, the student support during the transition into university, and quite possibly beyond, is also crucial and many of the issues raised in the current study were present regardless of entry route and the social factors being investigated. I therefore recommend that the course director for BSc Sport and Exercise Science consider the approaches used to support students during transition into university to ensure that all students are aware of the support available to them and can access it should they need it. The university offers academic and well-being support, but more consideration needs to be given by the university, and the Sport and Exercise Science course team, to ensure this support is more visible and that all students are encouraged to use. I would also encourage the creation of a culture amongst students whereby it is okay to ask for help and support. The course team would also be advised to use mechanisms, for example the academic personal tutor system, to facilitate discussions with students around the specific support they need, which may be related to their entry route onto the course, and signpost them to where they can find it. To do this effectively, staff themselves are likely to need educating on the differences in qualifications and educational capital students have and the support needs of diverse types of students, and the outcomes of this research will help me to facilitate that. In agreement with Kinderkhedia (2019:151), we need to avoid providing support that aims to

align non-traditional students with the more traditional cohort as educational inequalities will continue to be re-produced.

Similar to the recommendations made by the *Transitioning Transitions* study (Kinderkhedia 2019:150-151) and Masardo and Shields (2015:37), I recommend that the Sport and Exercise Science course team should avoid deficit discourses around BTEC qualifications and other social factors which locate the problems of degree attainment with the students, rather than the education system more generally and the particular university field within which they are located.

Thomas and May (2010:9) define inclusive learning and teaching as:

> the ways in which pedagogy, curriculum and assessment are designed and delivered to engage students in learning that is meaningful, relevant, and accessible to all. It embraces a view that diversity stems from individual differences that can enrich the lives and learning of others.

The course team should therefore continue to be encouraged to think creatively in their teaching, learning, and assessment practices, to accommodate the diverse needs of the Sport and Exercise Science students and industry requirements, whilst acknowledging the different strengths a diverse student body brings. That way, inclusive teaching and learning will become embedded in the course and may help reduce inequalities in attainment in future cohorts. Ensuring the course team are familiar with the range of qualifications students hold and what this means in terms of the methods of teaching, learning and assessment practices used, curriculum content, as well as how students have been prepared for university would also be beneficial. Future course developments and periodic reviews should therefore include representation from local FE providers to facilitate this. Course teams cannot assume that students on the course are all equal in terms of their 'capital' and preparedness for university. By treating students equally, inequalities in attainment will persist. Bourdieu recognised this for schools and universities are no different:

> in fact, to penalize the underprivileged and favour the most privileged, the school has only to neglect, in its teaching methods and techniques and its criteria when making academic judgements, to take into account the cultural inequalities between the different social classes. In other words, by treating all pupils, however unequal they may be in reality, as equal in rights and duties, the educational system is led to give its *de facto* sanction to initial cultural inequalities. The formal equality which governs pedagogical practice is in fact a cloak for a justification of indifference to the real inequalities with regard to the body of knowledge taught or rather demanded (Bourdieu 1974:37).

8.4.1.3 HE and FE partnerships

The consultation with FE providers during course development could form part of wider collaborative working across the FE and HE sectors, which has the potential to better support the transition of students into HE. A students' experience of transition into university undoubtedly arises from variability in students' backgrounds, expectations, and experiences.

> …when habitus encounters a social world of which it is the product, it is like a 'fish in water': it does not feel the weight of the water and it takes the world about itself for granted (Bourdieu and Wacquant 1992:127).

When a habitus encounters a field with which it is not familiar the result could be a change or transformation or could lead to disquiet, ambivalence, insecurity. Supporting student transition is important as it offers an opportunity for students to acquire additional cultural capital that would be beneficial for their university studies. Collaboration between FE and HE could take place at a local level in the first instance, developing stronger partnerships which enhance the understanding between the two sectors. As well as activities which focus on WP and student recruitment onto Sport and Exercise Science, there should also be activities that focus on student transition and should include academic preparedness and assessment expectations of HE. They should also include activities focused on raising aspirations and self-esteem and celebrating the strengths and successes of non-traditional learners in HE. This would be particularly beneficial for those students who are unfamiliar with HE, including those from lower socio-economic groups, from families without HE experiences, as well as those students who studied their Level 3 qualifications in an FE college. Post-16 education providers play a key role in developing students' identities as learners and in the development of relevant cultural and social capital required for them to transition into HE successfully (Gartland and Smith 2018:648). Therefore, post-16 education providers may benefit from collaborative working with HE in order to facilitate the transition of students into HE and their continued success. I recommend that activities take place both within post-16 educational providers as well as within HEIs themselves and include subject specific activities where appropriate. The use of student ambassadors would also be recommended, particularly if the ambassadors are from non-traditional, HE backgrounds. This could help raise the aspirations of potential students who would see that someone 'like them' can be successful in HE, and in that sense the ambassadors act as 'role models'.

I agree with Banerjee (2019:55) who suggested that “the first year of HE can be transformational as can be the support offered during the age of 14-19 years”. Therefore, FE/HE partnership working and continued support during transition into university and beyond is vital to ensure that students with academic potential could succeed regardless of their background.

8.4.2 Future research

There is scope for further research within this area. This could include a longitudinal, prospective study of Sport and Exercise Science students. The quantitative data in the present study was retrospective data whilst the interview data was from current students. Collecting prospective quantitative and qualitative data from students would allow a more holistic view of a students’ transition and progression through university and could include collecting quantitative and qualitative data at various points throughout the whole of their degree. This would also allow analysis of data from those students who are not successful. Additional factors which may also influence degree attainment could also be investigated, such as student engagement, financial and social pressures, and work-experience and placements. Data from students with the newly reformed Level 3 qualifications could also be analysed to investigate the effects of these changes on degree outcomes. Further investigation of students studying at different post-16 providers would also be valuable to expand on the suggestions of the present study that where a student studies their qualifications may be more important than the qualifications themselves. Investigating those students doing a mixture of A-Levels and BTECs would also be beneficial. Whilst my own subject discipline is Sport and Exercise Science and the focus of the current study, further research could investigate other subject areas within my School.

8.5 Reflection and limitations

The mixed method study design was a strength of the study. As previously detailed in Chapter 2, a considerable amount of research in this area is based on quantitative methods to investigate the relationship between academic and social factors on degree attainment, and in particular Level 3 qualifications and degree attainment. My previous research utilised positivist approaches based on scientific, objectivist ontologies and epistemologies. However, what became apparent when I started to review other studies in this field is that you only got half the story. That is, they told you the ‘what’ through statistical analysis of the data, but very few have designed studies

to find out 'why', and I wanted a more complete picture. Therefore, adopting a more pragmatic approach to this research lead to the development of a study that had both quantitative and qualitative aspects, the statistical analysis of retrospective cohort data showing which academic and social factors affected degree outcomes (what), and the interview data allowing me to explore possible reasons for those statistical outcomes (why). Integrating the two aspects of the study occurred predominantly in the discussion, although as detailed in the methodology chapter, the outcomes of the quantitative analysis did inform the development of the interview questions. The integration of the two aspects of the study was a challenge at times as this was the first time I had used a mixed methods study. In addition, the interview data didn't always provide obvious reasons to explain the outcomes of the quantitative analysis.

A theoretical framework was also utilised in this study, that of Bourdieu. As a sport scientist I was not familiar with using such a sociologic framework. Furthermore, much of the literature I was familiar with in this field had not used such frameworks. One of the reasons that Bourdieu resonated with me is that I could see the application in my own life experiences and that of my children and that helped me operationalise the key concepts within the parameters of this study. I also developed an appreciation of the benefits this framework brought to this study during the whole research process itself, providing me with a framework and the conceptual tools to analyse, interpret and discuss my findings. This again I see as a strength of the current study and makes the findings applicable to a wider audience, including those that are interested in applying Bourdieu's theory of practice, as well as those interested in predictors of degree outcomes, university transitions, and disparities in attainment, for example. Admittedly, trying to explain why ethnicity influenced degree outcomes using the interview data and within the parameters of the theoretical framework was particularly challenging. This could have been as a result of the interview questions asked as well as the students sampled but could also be because Bourdieu's theory of practice applied to education doesn't give much attention to issues of ethnicity, as previously detailed in Chapter 3.

This study has been conducted on Sport and Exercise Science and within a single HEI. While this does limit the generalizability of the results, it does provide a new insight into a discipline that had not been researched before in this specific area and therefore is considered a strength. However, this study may be useful for other disciplines that are similar in scientific content,

sport-related, having a significant practical component, and/or an interdisciplinary nature, and particularly those post-1992 universities who recruit students from similar WP backgrounds may also find this study useful. Several of the research findings in this study are about qualifications, transition, and HE more generally and this also widens application. This includes the value of qualifications; the predictive usefulness of A-Levels but not BTEC; the need to avoid deficit discourses around BTEC as the issue is not simply about that qualification; and the need for HEIs to think more carefully about not just aligning their courses to A-Levels.

The interview in the study generated a significant amount of data. It must be acknowledged though that these nine students were self-selecting and had progressed into the second year of the course, and therefore by definition are successful. Whilst both gender and BME groups were represented in the sample, there was a bias towards BME students, females, and those that had studied A-Levels, with only one student having studied BTEC only. It is important to acknowledge these sampling limitations as they do have implications when drawing conclusions from the research findings. However, I was not aiming for statistical generalisation and each of the interviewees is a valuable case in their own right, with a complex history and motivations for studying Sport and Exercise Science at my post-1992 university.

The five-year cohort size used for the statistical analysis was larger than other reviewed studies at single HEI and therefore a strength of the study. However, on reflection, expanding the data set to include several more years would have retained the manageability of the data set and would have strengthened the statistical outcomes of those variables such as gender and ethnicity where limited numbers may have contributed to the being just outside of significance. The inclusion of only successful students who obtained a degree in the data set is a strategy employed by many of the studies within the literature review. A strength of the present study was that unless a student left the course for a reason other than academic failure (as detailed in Chapter 3), they were included in the analysis. It is also important to note that I cannot be sure that any of the statistical effects are 'caused' by the independent variables, such as UCAS points and Level 3 qualification in the current study. The models only indicate that there is a significant association between the independent variable and the likelihood of obtaining a certain degree classification. Within this study I was keen to explore the 'why' and not misrecognise cause. For example, judging the

relative merits of BTEC and A-Levels must also consider that students do not opt for those pathways randomly – those social factors are ingrained into those choices.

New A-Levels were taught in schools in England from September 2015. The first results for these A-Levels being in 2017, with further subjects being introduced over the following two years (Ofqual 2015) . BTECs were also reformed and first teaching of the new BTEC Sport and BTEC Sport and Exercise Science qualifications was in 2016, with the 2010 qualifications continuing to be offered until September 2020 (Pearson 2020). Therefore, it needs to be acknowledged that the students that where interviewed may have started the course with reformed qualifications, whereas the retrospective data analysed in the quantitative aspect of the study was prior to the reform. This has implications when making conclusions based on the data and may explain why some of the statistical outcomes could not be fully explained by the interview data.

It would have been beneficial to look at GCSE attainment to get a sense of baseline ability within the present study. This would have been helpful due to the results of the present study suggesting BTEC qualifications are overvalued in terms of UCAS points. However, GCSE results were not available from the University Strategic Planning and Analytics Office.

8.6 Final thoughts

Undertaking this EdD has been both challenging and transformative. I am still not sure I would ever refer to myself as a social scientist so it has not transformed me in that way; I will always be a life scientist at heart. However, having an appreciation of different methodological approaches and ways of looking at the world will make me a better researcher whichever methodology I pragmatically employ in the future. Using the key concepts of Bourdieu to offer further explanation, I would say that I have most certainly acquired cultural and social capital during my EdD journey. My habitus, being “embodied history, internalised as second nature and so as forgotten history” (Bourdieu 1990:56), is therefore historically conditioned and deeply internalised and so the scientist within me will probably always predominate. Despite Bourdieu strongly linking habitus to a persons’ individual history and being a product of their childhood experience and their family, the current circumstances they find themselves in, such as a student transitioning into university or me embarking on my EdD journey, will also become internalised and add to an individuals’ earlier socialisations. The

habitus is therefore fluid and is modified as an individual has new experiences:

> The habitus which, as every moment, structures new experiences in accordance with the structures produced by past experiences, which are modified by the new experiences within the limits defined by their power of section, brings about a unique integration, dominated by the earliest experiences, of the experiences statistically common to members of the same class (Bourdieu 1990:60).

Therefore, my own habitus has been modified as a result of my EdD journey as a result of the new experiences it has brought.

A Sport and Exercise Science student, regardless of their background, can acquire cultural and social capital and modify their habitus to effectively transition into university and be successful in terms of degree outcome. I am from a working-class background, had parents that did not go to university, and had A-Level results that weren't brilliant. That didn't stop me from going to university where I obtained a First class degree, a Masters, and hopefully, a Doctorate.

Appendices

Appendix 1: Interview guide

Interview Guide

Duration of the interview will be approximately 60 minutes. It is acknowledged that whilst a guide is necessary to structure the interview, it is also necessary to maintain a natural flow in the interview. Therefore, whilst I plan on asking the following questions, it may not be necessary to ask every question as material may be covered indirectly through the responses that come from the broader questions; the broader questions being numbered 1-5 and in bold, with additional questions provided as bullets underneath.

1. Tell me about what family life was like for you whilst you were growing up.

- Describe your home life. Where did you grow up? What was your neighbourhood/area like?

- Tell me about your parents. What are their occupations? What level of education did they obtain? What about your siblings'' level of education?

- Could you describe your school life, particularly secondary school? How important was education in the family? Did your parents encourage you to do well at school? How?

- What were your hobbies and interests when you were growing up? Why these activities/hobbies?

2. Tell me about life at the college that you attended after you had finished your GCSEs.

- What type of college was it? 6th Form or FE College?

- What qualifications did you do at college and what influenced your decision to study those qualifications? What did you find challenging about studying for these qualifications?

- What were your motivations for going to University? In what ways, if any, did your college, family or friends influence your decision to attend?

- Why did you choose to study Sport and Exercise Science? Why Coventry University?

3. **What did you most enjoy or find challenging about coming to university? This could include the social and/or academic side of things.**

- If you could go back in time before you left college, what advice would you give yourself, and to your college, to help prepare for the transition from college to university?
- What support, if any, have you needed during your time at university so far?
- In what ways do you think you learn best?
- In what ways does the teaching at college and in the university differ and is this helpful or unhelpful for your learning style?
- What does a normal study week look like, including personal study time?
- How would you rate your progress in the degree so far and are you happy with this?"

4. **What would you consider to be the most significant experience(s) that you have had at university so far?**

- How have these experiences affected you educationally and personally?
- What qualities do you think the most successful students have? What are your strongest qualities as a student?
- What are your weaknesses as a student? How do you plan to address these?
- What are you going to be working on this year to successfully complete year 2?

5. **Where do you think you will be in 5 years?**

- What do you think your likely degree outcome will be and could you explain why you think that may be the case?
- What are your career aspirations?
- If you had your time again, would you do anything different in your educational journey?

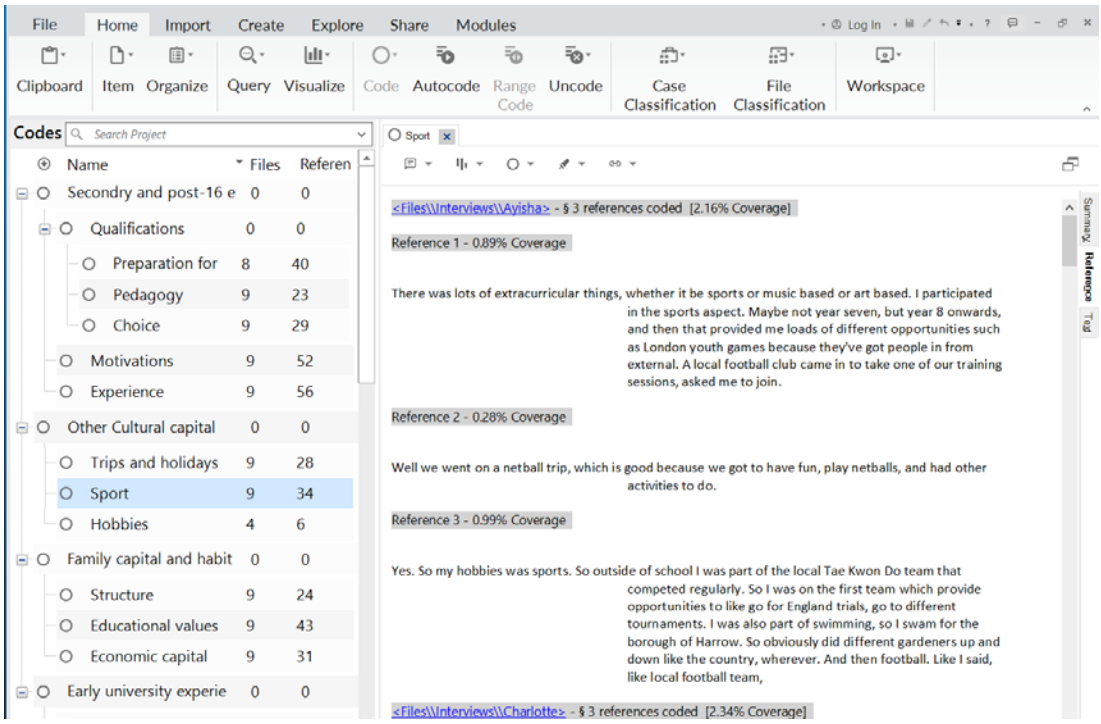
Appendix 2: Thematic analysis

Key coding themes (shown in bold) and sub-themes for the present study.

Name	Description
Family capital and habitus	Family capital and habitus
Economic capital	Evidence of economic capital within the family
Educational values	Evidence that education was important to the family or not. This is demonstrated by parents or other members of the family going to university (or not) and support in their studies from parents.
Structure	Structure of the family including whether parents were together or not, relationship with any siblings and with the wider family such as grandparents, cousins etc.
Other Cultural capital	Other opportunities to acquire cultural capital
Sport	Participation of sport and physical activities
Hobbies	Other hobbies that are not sport and physical activity related
Trips and holidays	Day trips and holidays with the school or family
Secondary and post-16 education	School and 6th form/FE college

Name	Description
Experience	Their general experience whilst at school and/or college
Qualifications	Details on the level 3 qualifications studied
• Choice	Reasons behind their choice of qualifications and subjects
• Pedagogy	Views on teaching, learning and assessment
• Preparation for HE	Views on whether their qualifications and college experience prepared them for their degree level study
Motivations	Motivations for wanting to go to university to study Sport and Exercise Science
Early university experience	During year 1 of their degree course
Academic	Views on teaching, learning, assessment methods at university and the support available to them
Aspirations	Aspirational degree classification and future career ambitions
Social	The social aspects of university life such as friendships, living away from home etc.
Success	Factors influencing their attainment and success on the course and perceptions of the qualities the most successful students have.

Thematic analysis coding example



Examples of text from the interview scripts that were added to the 'other cultural capital' node/key theme and within the 'sport' sub-theme.

References

Allatt, P. (1996) 'Consuming Schooling: Choice, Commodity, Gift and Systems of Exchange'. *The Sociological Review* 44 (S1), 163-182

Archer, L. (2003) 'Social Class and Higher Education'. in *Higher Education and Social Class: Issues of Exclusion and Inclusion*. ed. by Archer, Louise., Hutchings, Merryn., Ross, Alistair. London: Routledge Falmer, 5-20

Arksey, H. and Knight, P. T. (1999) *Interviewing for Social Scientists: An Introductory Resource with Examples*. London: Sage Publications

Ball, S. J., Reay, D., and David, M. (2002) ''Ethnic Choosing': Minority Ethnic Students, Social Class and Higher Education Choice'. *Race Ethnicity and Education* 5 (4), 333-357

Bamber, J. and Tett, L. (2000) 'Transforming the Learning Experiences of Non-Traditional Students: A Perspective from Higher Education'. *Studies in Continuing Education* 22 (1), 57-75

Banerjee, P. A. (2019) 'Statistical Analysis of National Data Sets: Exploring Demographics, Access and Progression of Students in Higher Education from Vocational Entry Routes'. in *Transitions from Vocational Qualifications to Higher Education: Examining Inequalities*. ed. by Banerjee, PA and Myhill, D. Bingley: Emerald Publishing, 39-58

Banerjee, P. A. and Myhill, D. (2019) *Transitions from Vocational Qualifications to Higher Education*. Bingley: Emerald Publishing Limited.

Barnett, R. (1988) 'Entry and Exit Performance Indicators for Higher Education: Some Policy and Research Issues'. *Assessment and Evaluation in Higher Education* 13 (1), 16-30

BASES (n.d.) *The British Association of Sport and Exercise Sciences* [online] available from <http://www.bases.org.uk/About-Sport-and-Exercise-Science> [1st September 2020]

Bekhradnia, B. and Thompson, J. (2002) 'Who does Best at University'. *London: Higher Education Funding Council for England*

Bhattacharyya, G., Ison, L., and Blair, M. (2003) *Minority Ethnic Attainment and Participation in Education and Training: The Evidence* [online] available from <http://jastoy.plus.com/pdf/minority_ethnic_attainment.pdf> [10th January 2018]

Blanden, J. and Machin, S. (2004) 'Educational Inequality and the Expansion of UK Higher Education'. *Scottish Journal of Political Economy* 51 (2), 230-249

Bourdieu, P. (2005) 'Habitus'. *Habitus: A Sense of Place* 2, 43-49

Bourdieu, P. (1993) *Sociology in Question*. London: Sage

Bourdieu, P. and Wacquant, L. J. (1992) *An Invitation to Reflexive Sociology*. Chicago: University of Chicago press

Bourdieu, P. (1990) *The Logic of Practice*. Stanford, California: Stanford University Press

Bourdieu, P. (1986) *The Forms of Capital Handbook of Theory and Research for the Sociology of Education (Pp. 241–258)*.

Bourdieu, P. (1985) 'The Genesis of the Concepts of Habitus and Field'. *Sociocriticism* 2 (2), 11-24

Bourdieu, P. (1984) *Distinction: A Social Critique of the Judgement of Taste.* trans. by Nice, R. Cambridge, Massachusetts: Harvard University Press

Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press

Bourdieu, P. (1974) 'The School as a Conservative Force: Scholastic and Cultural Inequalities'. *Contemporary Research in the Sociology of Education* 32, 46

Braun, V. and Clarke, V. (2006) 'Using Thematic Analysis in Psychology'. *Qualitative Research in Psychology* 3 (2), 77-101

Bridger, K., Shaw, J., and Moore, J. (2012) 'Fair Admissions to Higher Education Research to Describe the use of Contextual Data in

Admissions at a Sample of Universities and Colleges in the UK'. *London: Supporting Professionalism in Admissions*

Briggs, A. R. J., Clark, J., and Hall, I. (2012) 'Building Bridges: Understanding Student Transition to University'. *Quality in Higher Education* 18 (1), 3-21

Brimble, M. J. (2015) 'Does Entry Route really Affect Academic Outcome? Academic Achievement of Traditional Versus Non Traditional Entrants to BN(Hons) Pre-Registration Nursing Programmes'. *Journal of further and Higher Education* 39 (3), 379-398

Broecke, S. and Nicholls, T. (2006) *Ethnicity and Degree Attainment*: Department for Education and Skills

Bunce, L., Baird, A., and Jones, S. E. (2017) 'The Student-as-Consumer Approach in Higher Education and its Effects on Academic Performance'. *Studies in Higher Education* 42 (11), 1958-1978

Chapman, K. (1996) 'Entry Qualifications, Degree Results and Value-Added in UK Universities'. *Oxford Review of Education* 22 (3), 251-264

Chowdry, H., Crawford, C., Dearden, L., Goodman, A., and Vignoles, A. (2013) 'Widening Participation in Higher Education: Analysis using Linked Administrative Data'. *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 176 (2), 431-457

Chowdry, H., Dearden, L., and Wyness, G. (2010) *Higher Education Reforms: Progressive but Complicated with an Unwelcome Incentive*: ISRC

Coe, R. (2007) *Changes in Standards at GCSE and A-Level: Evidence from ALIS and YELLIS*.

Cohen, L., Manion, L., and Morrison, K. (2011) *Research Methods in Education*. Seventh edn. Abingdon: Routledge

Conlon, G. (2002) 'The Determinants of Undertaking Academic and Vocational Qualifications in the UK'. *Education Economics* 13 (3), 299-313

Connor, H., Sinclair, E., and Banerji, N. (2006) *Progressing to Higher Education: Vocational Qualifications and Admissions. Action on Access*. Ormskirk: Action on Access

Connor, H., Tyers, C., Modood, T., and Hillage, J. (2004) 'Why the Difference? A Closer Look at Higher Education Minority Ethnic Students and Graduates'. *Institute for Employment Studies Research Report* 552

Connor, H., Dewson, S., Tyers, C., Eccles, J., Regan, J., and Aston, J. (2001) *Social Class and Higher Education: Issues Affecting Decisions on Participation by Lower Social Class Groups*. Norwich: Department for Education and Employment

Connor, H. (1996) *Ethnic Minority Graduates: Differences by Degrees. Report 309.* [online] available from <https://eric.ed.gov/?id=ED398411> [10th January 2018]

Creswell, J. W. (2003) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Second edn. London: Sage Publications

Crozier, G., Reay, D., Clayton, J., Colliander, L., and Grinstead, J. (2008) 'Different Strokes for Different Folks: Diverse Students in Diverse Institutions - Experiences of Higher Education'. *Research Papers in Education* 23 (2), 167-177

Denscombe, M. (2008) 'Communities of Practice a Research Paradigm for the Mixed Methods Approach'. *Journal of Mixed Methods Research* 2 (3), 270-283

Dumais, S. A. (2002) 'Cultural Capital, Gender, and School Success: The Role of Habitus'. *Sociology of Education* 75 (1), 44-68

Edgerton, J. D. and Roberts, L. W. (2014) 'Cultural Capital Or Habitus? Bourdieu and Beyond in the Explanation of Enduring Educational Inequality'. *School Field* 12 (2), 193-220

Evans, B. C., Coon, D. W., and Ume, E. (2011) 'Use of Theoretical Frameworks as a Pragmatic Guide for Mixed Methods Studies: A Methodological Necessity?'. *Journal of Mixed Methods Research* 5 (4), 276-292

Evans, M. (2000) 'Planning for the Transition to Tertiary Study: A Literature Review'. *Journal of Institutional Research* 9 (1), 1-13

Field, A. (2013) *Discovering Statistics using IBM SPSS Statistics*. Fifth edn. London: Sage

Fleming, J. (2018) 'Recognizing and Resolving the Challenges of being an Insider Researcher in Work-Integrated Learning.'. *International Journal of Work-Integrated Learning* 19 (3), 311-320

Gaddis, S. M. (2013) 'The Influence of Habitus in the Relationship between Cultural Capital and Academic Achievement'. *Social Science Research* 42 (1), 1-13

Gallacher, J., Crossan, B., Mayes, T., Cleary, P., Smith, L., and Watson, D. (2007) 'Expanding our Understanding of the Learning Cultures in Community-based further Education'. *Educational Review* 59 (4), 501-517

Gallagher, G. (2005) *An Examination of Ethical Issues Pertaining to Educational Research*. Dublin: Dublin Institute of Technology

Gartland, C. E. and Smith, C. (2018) 'Supporting Progression to HE: The Role of Colleges and Vocational Courses'. *Education Training*

Gill, T. and Vidal Rodeiro, C. L. (2014) *Predictive Validity of Level 3 Qualifications: Extended Project, Cambridge Pre-U, International Baccalauréate, BTEC Diploma*. Cambridge, UK: Cambridge Assessment

Gill, T. (2018) 'Preparing Students for University Study: A Statistical Comparison of Different Post-16 Qualifications'. *Research Papers in Education* 33 (3), 301-319

Gill, T. (2016) 'Assessing the Equivalencies of the UCAS Tariff for Different Qualifications'. *Research Matters* 21, 16-23

Glanville, K., Green, A., and Hannan, A. (2007) *Widening Participation, Retention and Attainment in Higher Education: An Institutional Case Study of Student Experience* [online] available from <http://www.leeds.ac.uk/educol/documents/160875.htm> [1st December 2017]

Goodhart, C. B. (1995) 'Why Girls do Better at School but Not Later On'. *Oxford Magazine, Second Week, Michaelmas Term*, 9

Gray, D. E. (2014) *Doing Research in the Real World*. London: Sage

Hatt, S. and Baxter, A. (2003) 'From FE to HE: Studies in Transition: A Comparison of Students Entering Higher Education with Academic and Vocational Qualifications'. *Widening Participation and Lifelong Learning* 5 (2), 18-29

Hayward, G. and Hoelscher, M. (2011) 'The use of Large-Scale Administrative Data Sets to Monitor Progression from Vocational Education and Training into Higher Education in the UK: Possibilities and Methodological Challenges'. *Research in Comparative and International Education* 6 (3), 316-329

HEFCE (2018) *Differences in Student Outcomes: The Effect of Student Characteristics*. London: HEFCE

HEFCE (2015) *Differences in Degree Outcomes: The Effect of Subject and Student Characteristics* [online] available from <http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2015/201521/HEFCE2015_21.pdf> [6th November 2017]

HEFCE (2014) *Differences in Degree Outcomes: Key Findings* [online] available from <http://dera.ioe.ac.uk/19811/1/HEFCE2014_03.pdf> [6th November 2017]

HEFCE (2013) *Trends in Young Participation* [online] available from <https://mmpt.pasca.ugm.ac.id/downloads/140106080005young%20participation.pdf> [6th November 2017]

HEFCE (2003) *Schooling Effects on Higher Education Achievement. Issues Paper*. Bristol: Higher Education Funding Council for England. available from <https://dera.ioe.ac.uk/5452/1/05_09.pdf> [1st September 2020]

HESA (n.d.) *JACS* [online] available from <https://www.hesa.ac.uk/support/documentation/jacs> [1st September 2020]

HESA (2020) *Higher Education Student Data* [online] available from <https://www.hesa.ac.uk/news/05-02-2020/he-student-data> [1st September 2020]

HESA (2018) *Higher Education Student Statistics: UK, 2016/17 - Summary* [online] available from <https://www.hesa.ac.uk/news/11-01-2018/sfr247-higher-education-student-statistics> [February, 6th 2018]

Hoare, A. and Johnston, R. (2011) 'Widening Participation through Admissions Policy - a British Case Study of School and University Performance'. *Studies in Higher Education* 36 (1), 21-41

Hoelscher, M., Hayward, G., Ertl, H., and Dunbar-Goddet, H. (2008) 'The Transition from Vocational Education and Training to Higher Education: A Successful Pathway?'. *Research Papers in Education* 23 (2), 139-151

Holford, A. (2017) 'Students with BTECs do Worse at University – here's how we Close the Gap'. *The Guardian* [online] 29 November. available from <https://www.theguardian.com/higher-education-network/2017/nov/29/students-with-btecs-do-worse-at-university-heres-how-we-close-the-gap> [1st September 2020]

Hoskins, S. L., Newstead, S. E., and Dennis, I. (1997) 'Degree Performance as a Function of Age, Gender, Prior Qualifications and Discipline Studied'. *Assessment and Evaluation in Higher Education* 22 (3), 317-328

Huntley, T., Whitehead, A., Cullinane, D., Nixon, S., and Huntley, E. (2017) 'Investigating Relationships between and within Entry Pathways on a Sport Related Programme and the Degree Outcome Obtained'. *Cogent Education* 4 (1), 1276665

Huws, N. and Taylor, L. (2008) 'University Performance of Learners from Vocational Versus Traditional Backgrounds in Equine and Animal Studies.'. *VETNET LLN, the National Lifelong Learning Network for Veterinary and Allied Professionals*, 1-11

Huws, N., Reddy, P., and Talcott, J. (2006) 'Predicting University Success in Psychology: Are Subject-Specific Skills Important?'. *Psychology Learning & Teaching* 5 (2), 133-140

IBM Corp. (2017) *SPSS* [online] [5th January 2019]

Jacobs, J. A. (1996) 'Gender Inequality and Higher Education'. *Annual Review of Sociology* 22 (1), 153-185

Johnson, R. B., Onwuegbuzie, A. J., and Turner, L. A. (2007) 'Toward a Definition of Mixed Methods Research'. *Journal of Mixed Methods Research* 1 (2), 112-133

Johnson, R. B. and Onwuegbuzie, A. J. (2004) 'Mixed Methods Research: A Research Paradigm Whose Time has Come'. *Educational Researcher* 33 (7), 14-26

Katartzi, E. and Hayward, G. (2019) 'Transitions to Higher Education: The Case of Students with Vocational Background'. *Studies in Higher Education*, 1-11

Kennedy, R. (2019) *The Benefits of Attending a Girls' School* [online] available from <https://www.thoughtco.com/benefits-of-attending-girls-school-2774631> [1st September 2020]

Kinderkhedia, M. (2019) 'Conclusion'. in *Transitions from Vocational Qualifications to Higher Education: Examining Inequalities*. ed. by Banerjee, P.A, , Myhill, D. Bingley: Emerald Publishing, 150

King, N. C. and Aves, S. J. (2012) 'Effect of A-Level Subject Choice and Entry Tariff on Final Degree and Level 1 Performance in Biosciences'. *Bioscience Education* 19 (1), 1-11

Leathwood, C. and Hutchings, M. (2003) 'Entry Routes to Higher Education'. in *Higher Education and Social Class: Issues of Exclusion and Inclusion*. ed. by Archer, L., Hutchings, M., and Ross, A. London: Routledge Falmer, 137-154

Leese, M. (2010) 'Bridging the Gap: Supporting Student Transitions into Higher Education'. *Journal of further and Higher Education* 34 (2), 239-251

Leman, P. (1999) 'The Role of Subject Area, Gender, Ethnicity and School Background in the Degree Results of Cambridge University Undergraduates'. *Curriculum Journal* 10 (2), 231-252

Lipsett, A. (2009) 'Universities are Failing Students with Vocational Qualifications'. *The Guardian* [online] 28 July. available from <https://www.theguardian.com/education/2009/jul/28/vocational-qualifications-university-dropout> [27th October 2016]

Longden, B. (2004) 'Interpreting Student Early Departure from Higher Education through the Lens of Cultural Capital'. *Tertiary Education and Management* 10 (2), 121-138

Lumb, A. B. and Vail, A. (2004) 'Comparison of Academic, Application Form and Social Factors in Predicting Early Performance on the Medical Course'. *Medical Education* 38 (9), 1002-1005

Masardo, A. and Shields, R. (2015) *Changing Patterns in Vocational Entry Qualifications, Student Support and Outcomes in Undergraduate Degree Programmes* [online] available from <http://opus.bath.ac.uk/45618> [16th November 2016]

McCoy, T. and Adamson, D. (2016) 'Building a House on Sand? are Vocational Education and Training Qualifications an (in)Equitable Stepping-Stone to Success in Higher Education?'. in *Student Attainment in Higher Education: Issues, Controversies and Debates*. ed. by Graham, S., Debra, C., and Lynn, C. London: Routledge, 161-173

McCrum, N. G. (1994) 'The Academic Gender Deficit at Oxford and Cambridge'. *Oxford Review of Education* 20 (1), 3-26

McKay, A. (2006) 'Towards Evidence-based Recruitment Processes in the UK'. *The Journal of further and Higher Education* 30 (3), 303-324

McNabb, R., Sarmistha, P., and Sloane, P. (2002) 'Gender Differences in Educational Attainment: The Case of University Students in England and Wales'. *Economica* 69 (275), 481-503

Mickelson, R. A. (2003) 'Gender, Bourdieu, and the Anomaly of Women's Achievement Redux'. *Sociology of Education* 76 (4), 373-375

Miller, M. (2016) *The Ethnicity Attainment Gap: Literature Review* [online] available from <https://www.sheffield.ac.uk/polopoly_fs/1.661523!/file/BME_Attainment_Gap_Literature_Review_EXTERNAL_-_Miriam_Miller.pdf> [6th February 2018]

Montague, W. and Odds, F. C. (1990) 'Academic Selection Criteria and Subsequent Performance'. *Medical Education* 24 (2), 151-157

Morris, J. and Farmer, A. (1999) 'The Predictive Strength of Entry Grades and Biographical Factors on the Academic and Clinical Performance of Physiotherapy Students'. *Physiotherapy Theory and Practice* 15 (3), 165-173

Mountford-Zimdars, A., Sabri, D., Moore, J., Sanders, J., Jones, S., and Higham, L. (2015) *Causes of Differences in Student Outcomes*. London: Higher Education Funding Council for England

Murphy, B. (2009) 'Great Expectations? Progression and Achievement of Less Traditional Entrants to Higher Education'. *Widening Participation and Lifelong Learning* 11 (2), 4-14

Myhill, D. and Morgan, S. (2019) 'Vocational Qualifications, University Access and Widening Participation: Setting the Context'. in *Transitions from Vocational Qualifications to Higher Education: Examining Inequalities*. ed. by Banerjee, PA and Myhill, D. Bingley: Emerald Publishing, 13-38

Myhill, D. and Morris, R. (2019) 'Assessment Practices: Student Voices on their Experiences of Assessment Across the Transition'. in *Transitions from Vocational Qualifications to Higher Education: Examining Inequalities*. ed. by Banerjee, PA and Myhill, D. Bingley: Emerald Publishing, 79-94

Myhill, D. and Venner, S. (2019) 'Ways of Learning: Student Voices on Learning Experiences Across the Transition'. in *Transitions from Vocational Qualifications to Higher Education: Examining Inequalities*. ed. by Banerjee, PA and Myhill, D. Bingley: Emerald Publishing, 59-79

Naylor, R. and Smith, J. (2004) 'Degree Performance of Economics Students in UK Universities'. *Scottish Journal of Political Economy* 51 (2), 250-265

Ofqual (2015) *Ofqual Postcards: GCSE, AS and A Level Reforms* [online] available from <https://www.gov.uk/government/publications/your-qualification-our-regulation-gcse-as-and-a-level-reforms> [November 1st 2020]

Owusu-Apenten, R. and Xu, W. L. (2012) 'Entrance Qualifications Affect the Performance of Nutrition Students at University: A Pilot Study'. *Bioscience Education* 20 (1), 84-91

Pearson (2020) *BTEC Nationals* [online] available from <https://qualifications.pearson.com/en/qualifications/btec-nationals.html> [1st September 2020]

Peers, I. S. and Johnston, M. (1994) 'Influence of Learning Context on the Relationship between A-level Attainment and Final Degree Performance: A Meta-analytic Review'. *British Journal of Educational Psychology* 64 (1), 1-18

Pirie, M. (2001) 'How Exams are Fixed in Favour of Girls'. *The Spectator* 20, 12-13

Polit, D. F. and Beck, C. T. (2004) *Nursing Research: Principles and Methods*. Surrey: Lippincott Williams & Wilkins

QSR International (1999) *NVivo* [online] [1st October 2019]

Read, B., Archer, L., and Leathwood, C. (2003) 'Challenging Cultures? Student Conceptions of 'Belonging' and 'Isolation' at a Post-1992 University'. *Studies in Higher Education* 28 (3), 261-277

Reay, D., Crozier, G., and Clayton, J. (2010) ''Fitting in' Or 'standing Out': Working-class Students in UK Higher Education'. *British Educational Research Journal* 36 (1), 107-124

Reay, D., Crozier, G., and Clayton, J. (2009) ''Strangers in Paradise'? Working-Class Students in Elite Universities'. *Sociology* 43 (6), 1103-1121

Reay, D., David, M. E., and Ball, S. J. (2005) *Degrees of Choice: Class, Race, Gender and Higher Education*. London: IOE Press

Reay, D., Davies, J., David, M., and Ball, S. J. (2001) 'Choices of Degree Or Degrees of Choice? Class, 'Race' and the Higher Education Choice Process'. *Sociology* 35 (4), 855-874

Reay, D. (1998) ''Always Knowing' and 'never being Sure': Familial and Institutional Habituses and Higher Education Choice'. *Journal of Education Policy* 13 (4), 519-529

Reay, D. and Ball, S. J. (1998) ''Making their Minds Up': Family Dynamics of School Choice'. *British Educational Research Journal* 24 (4), 431-448

Richardson, J. (2008) 'The Attainment of Ethnic Minority Students in UK Higher Education'. *Studies in Higher Education* 33 (1), 33-48

Richardson, J. T. and Woodley, A. (2003) 'Another Look at the Role of Age, Gender and Subject as Predictors of Academic Attainment in Higher Education'. *Studies in Higher Education* 28 (4), 475-493

Robson, C. and McCartan, K. (2016) *Real World Research*. Chichester: John Wiley & Sons

Robson, C. (2011) *Real World Research: A Resource for Users of Social Research Methods in Applied Settings 3rd Edition*. Chichester: John Wiley & Sons

Roscigno, V. J. and Ainsworth-Darnell, J. W. (1999) 'Race, Cultural Capital, and Educational Resources: Persistent Inequalities and Achievement Returns'. *Sociology of Education*, 158-178

Rouncefield-Swales, A. (2014) 'Vocational Progression to Selecting Universities: Comparisons and Trends 2010-13'. *Western Vocational Progression Consortium*

Rowley, J. (2012) 'Conducting Research Interviews'. *Management Research Review* 35 (3/4), 260-271

Rudd, E. (1984) 'A Comparison between the Results Achieved by Women and Men Studying for First Degrees in British Universities'. *Studies in Higher Education* 9 (1), 47-57

Russell Group (2017) *Informed Choices: A Russell Group Guide to Making Decisions about Post-16 Education*. London: Russell Group. available from <https://www.stbrn.ac.uk/upload/Russell_Group_Informed_Choices_2018.pdf> [10th January 2018]

Russell Group (2013) *Participation of BME Students at Russell Group Universities*. available from <https://www.russellgroup.ac.uk/media/5361/evidence-to-the-women-and-equalities-committee-inquiry-on-employment-opportunities-for-muslims-in-the-uk.pdf> [10th January 2018]

Schwartz, S. (2004) *Fair Admissions to Higher Education: Recommendations for Good Practice*. London: Higher Education Steering Group

Sear, K. (1983) 'The Correlation between A Level Grades and Degree Results in England and Wales'. *Higher Education* 12 (5), 609-619

Smith, E. and White, P. (2015) 'What Makes a Successful Undergraduate? the Relationship between Student Characteristics, Degree Subject and Academic Success at University'. *British Educational Research Journal* 41 (4), 686-708

Smith, J. and Naylor, R. (2001) 'Determinants of Degree Performance in UK Universities: A Statistical Analysis of the 1993 Student Cohort'. *Oxford Bulletin of Economics and Statistics* 63 (1), 29-60

Smithers, A. (2004) *University Admissions: School Effect and HE Achievement*. Buckingham: Centre for Education Employment Research. available from <https://alansmithers.com/reports/UniversityAdmissions6Oct2004.pdf > [January 21st 2016]

Smithers, A. and Robinson, P. (1989) *Increasing Participation in Higher Education*. London: BP Educational Service. available from

<https://www.buckingham.ac.uk/wp-content/uploads/2019/02/IncreasingParticipationInHigherEducation.pdf > [12th November 2016]

Stubbs, B., Vancampfort, D., Smith, L., Rosenbaum, S., Schuch, F., and Firth, J. (2018) 'Physical Activity and Mental Health'. *The Lancet Psychiatry* 5 (11), 873

Sullivan, A. (2001) 'Cultural Capital and Educational Attainment'. *Sociology* 35 (4), 893-912

Thiele, T., Singleton, A., Pope, D., and Stanistreet, D. (2016) 'Predicting Students' Academic Performance Based on School and Socio-Demographic Characteristics'. *Null* 41 (8), 1424-1446

Thomas, L. and May, H. (2010) *Inclusive Learning and Teaching in Higher Education* [online] : Higher Education Academy

Thomas, L. (2002) 'Student Retention in Higher Education: The Role of Institutional Habitus'. *Journal of Education Policy* 17 (4), 423-442

Trowler, P. (2011) *Researching Your Own Institution: Higher Education* [online] available from <https://www.bera.ac.uk/publication/researching-your-own-institution-higher-education> [21st November 2017]

UCAS (2019) *2019 End of Cycle Report* [online] available from <https://www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/ucas-undergraduate-end-cycle-reports/2019-end-cycle-report> [1st September 2020]

Universities, U. K. (2003) *Fair enough? Wider Access to University by Identifying Potential to Succeed*. London: Universities UK

University of Nottingham (2019) *The University of Nottingham's Code of Research Conduct and Research Ethics* . Nottingham: University of Nottingham. available from <https://www.nottingham.ac.uk/research/ethics-and-integrity/> [21st November 2017]

Vickers, P. and Bekhradnia, B. (2007) *Vocational A Levels and University Entry: Is there Parity of Esteem?*. Oxford: Higher Education Policy Institute. available from <https://immagic.com/eLibrary/ARCHIVES/GENERAL/HEPI_UK/H070117V.pdf> [12th November 2016]

Webber, L. (2014) 'Accessing HE for Non-Traditional Students: 'Outside of My Position''. *Research in Post-Compulsory Education* 19 (1), 91-106

Wilding, J. and Valentine, E. (1992) 'Factors Predicting Success and Failure in the First-year Examinations of Medical and Dental Courses'. *Applied Cognitive Psychology* 6 (3), 247-261

Williams, C. and Wragg, C. (2004) *Data Analysis and Research for Sport and Exercise Science: A Student Guide*. London: Routledge

Wolf, A. (2011) *Review of Vocational Education - the Wolf Report*.: Stationery Office. available from <http://publicinformationonline.com/download/25407>

Woodfield, R. (2014) *Undergraduate Retention and Attainment Across the Disciplines* [online] available from <https://www.heacademy.ac.uk/system/files/resources/undergraduate_retention_and_attainment_across_the_disciplines.pdf> [6th February 2018]

Woodfield, R. and Earl-Novell, S. (2006) 'An Assessment of the Extent to which Subject Variation between the Arts and Sciences in Relation to the Award of a First Class Degree can Explain the 'gender Gap' in UK Universities'. *British Journal of Sociology of Education* 27 (3), 355-372

Woodley, A. (1984) 'The Older the Better? A Study of Mature Student Performance in British Universities'. *Research in Education* 32 (1), 35-50