A quantitative investigation addressing the award gap in UK higher education; who does it really impact?

Nazneen Abdul Ismail

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Department of Sociology

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To my parents, for their love, generosity, and support

To my best friend and husband Hamim, for believing in me, for encouraging me to pursue my dreams, and for being my anchor when things got tough

To our loved ones who are no longer with us

Abstract

Increased participation of students from diverse educational backgrounds in the UK higher education sector has resulted in a differential award gap between white students and students of colour. Based on the notion that such inequalities are not the student's fault; it is suggested that structural determinants will also be responsible. The theoretical framework used to explore these issues utilises Archer's morphogenetic cycle, Bourdieu's concept of habitus, and Bronfenbrenner's bioecological systems. In doing so, it examines the influences of structural conditioning, social interaction, and agential action that are implicated in a student's final award. Using central administrative data from Manchester Metropolitan University, the research employs a critical realist approach and a reflexive quantitative methodology to examine the data. Both approaches are relatively innovative within the discipline of quantitative methodology, but they were required so that the researcher could acknowledge their positionality and locate themselves at the centre of the investigation.

In the first instance, it was necessary to reject the term 'BAME' since it was believed that it could mask disparities among the identities that fall within the label's umbrella. Doing so revealed differences existed with Black students being 61% less likely to be awarded a first-class degree; and Asian students being 42% less likely. However, analysing the effects of socio-demographic, economic, previous academic achievements, and participation in extracurricular activities (ECA), demonstrated additional statistically significant differences. Participation in ECA into the model showed a moderated improvement in award for Asian students but no significant improvement for Black students.

While the current research adopts a top-down approach by utilising the university's central administrative data, it is recommended that a more nuanced approach be implemented, grading on a more granular level, to understand where in the system students begin to receive lower grades that ultimately result in the award gap. Equality within the system can never be assumed. The hope is that identifying all structural barriers to achievement, whether they reside in the system or in an individual's educational background, could result in a better system where all students, regardless of their educational or cultural background, can benefit from attending university.

Acknowledgements

Preface

The following is my reflective account of the PhD process, and the culmination of five years of study, during which some major global events took place such as Brexit, the resurgence of the BLM Movement, and the Covid-19 pandemic. This has been a long and arduous process but has equally been a source of pride and sense of accomplishment for me.

When I initially undertook this research, from the very beginning it was from a place of wanting to make a difference and really turn my findings into something actionable. The interest in performance levels in higher education and the factors associated with how and why undergraduates do what they do whilst at university and how this has an impact on their grades/final award began prior to undertaking this thesis. As I was a mature student who started with an Access to HE course at the age of 23, I was interested in these differences. My personal trajectory was that I did an Access to HE, then BA (Hons) Sociology and then transferred to a different university and then withdrew due to personal circumstances and started second year again the following academic year. By which point I was 26. I graduated in 2015 (age 27) and then went on to win a scholarship for an MSc. During this time, I began helping other undergraduate students with quantitative methods in support labs and my interest in teaching and research began to develop further.

My dissertation on my MSc was looking at performance levels, engagement and factors that influence final award. However, the data that I had access to for this project was information on the student prior to university, their engagement during their first year and their final award. This provided an interesting snapshot of some key differences between students but did not provide a full picture. This led to my preliminary research topic, research strategy and what would be feasible with my existing knowledge on accessing this type of data, what would be included in it etc. The results of my MSc dissertation showed that there were differential outcomes in HE when exploring different characteristics, which led me to research current and historical trends in higher education. Initially I was exploring the differences between high achieving students and those with lower final awards, to examine what a typical high achieving students' profile was like. Exploring external factors such as structures in society, previous qualifications, socio-demographics, socio-economic classifications, household income etc. The idea was that if I could potentially identify these differences then we could be one-step closer to reducing this gap.

As I began the process of accessing the data, I discussed what I was hoping to research with the data department, to ensure it was possible and address early on what constraints I may have to adapt to what was available. Once I realised that there was a possibility to have the majority of what I was looking for, I went ahead and began the research design. Admittedly,

there were some limitations in the form of engagement data because the way it was recorded at that time was not uniform, and in different formats; there was still enough engagement data to be able to explore the aspect of extracurricular activities, albeit a limited version. For instance, I was interested in Moodle usage and whilst this is recorded, in terms of when students access it, for how long etc., it was not in a useable format for me to analyse it in a way where it could be linked to the other data/factors. This would be one aspect of engagement. Other aspects would include participation in ECA, and although I did have access to this, it was limited to whether they did it or not, not how many hours or other details. I adapted to what was available and what would fit in with the scope of the thesis.

I began developing the framework based on my understanding of structure and agency, habitus, and structural-cultural conditioning. I was initially using Bourdieu as the key theorist but after some feedback and some further reading, it became obvious to me that whilst there were some important and relevant aspects of habitus, there were other theories following along the same vein but further developed such as Archer's morphogenesis cycle. Some of the criticism for habitus included the lack of practical measurement concepts. Whereas Archers theory had developed concrete ways to explore these concepts of the connection between structure and agency. This helped to develop the research design and how I planned to group different aspects of structures (the 3 groups: structural conditioning, social interaction and self-regulation, structural modification/outcomes). After some extensive data management, (an extremely large amount of data in various files), the data analysis stage went quite quickly. The time taken to design the research really helped with this.

One of the core developments that stands out to me is how my research went from being an important piece of work exploring the differences in the award gap, to really embracing the research, and subject matter. This increased as I started to recognise myself in the research. As I came across the term 'high achieving non-traditional student' (HANT; Wong and Chiu, 2019), that was another core moment of realisation, that this thesis was more than just a research area that I am interested in, but rather that I am very invested in acting on the outcomes/recommendations that I am making to reduce this award gap. I began to take ownership of my research in a much more complex way and claiming the space to represent my own voice and others like me. One of the things identified in the research is the importance of representation in the form of tutors/lecturers/faculty, even in the student body in relation to extracurricular activities and I find this to be true within my own experiences too. For instance, being afraid to take up space as a HANT and person of colour takes time and encouragement to being comfortable in that space. If HANT students feel this way, students who may achieve lower award classifications will potentially find this even more difficult. This has been my

experience as a former undergraduate and current postgraduate. This highlighted to me even more the importance of my voice and representing people of colour in this way.

Something I had noticed about myself and other students whilst observing the class as an undergraduate, was that each time I entered a new classroom or new space, I would look around to see if there was anyone else like me. At the time, there wasn't much thought attached to this quick evaluation but years later whilst in a teaching role myself, I realised this was a common theme for many students of colour. This was particularly the case with visible Muslim students who would take the time to speak to me after class. Whilst sometimes they would initially be shy, the five or ten minutes of 1-1 interaction each week after class would build up into asking questions about progression for 'people like us'; we are inherently aware of the Islamophobia we face in all aspects of life. Therefore, to see someone who looks like them in a position of authority, in their eyes someone to look up to, the representation in fact, was something that inspired awe. On the one hand, this reflected my personal experiences, but also made me feel sad and proud at the same time. I was able to be the person I had been looking for, for the future generations. I was equally saddened that something seemingly small (at least from the outside), meant so much.

This has happened every year and has really enforced the importance of representation. It made me reflect on other aspects of life where lack of representation is the norm – in books, TV and movies, and even in primary school. For instance, when colouring, all children always used peach for skin colour, including myself when I was younger, and I know many children still do this now. Another example is how when reading or writing stories in primary school (or older), the main character is always white or has white sounding names. It saddens me to say that I did this too and only on reflection do I realise the extent of the effects of colonisation. This is not to say that 'brown' characters do not exist, but rather we learn as children that to fit in we need to be white passing or as much as possible to the point that nearly all brown adults will attest to, that they rejected their heritage culture. From clothes to food preferences, and even how their name is pronounced. Some come back to appreciate their heritage as they get older, some do not, but it is often an unspoken understanding between other brown people who may or may not be from the same heritage country.

I am personally from an Indian background. I was born in the UK to parents who came to the UK from a young age, as my paternal grandparents had come to England after the Second World War to work in the textile mills in Bolton. My father was 8 years old when he arrived and went through the British education system and my mother came at 16 years old, who has spent more time in the UK than her home country of India. On reflection, amongst the many things that can be attributed to being a part of the diaspora and really stands out to me is that

my nickname became Naz. At the time, I was not consciously thinking oh I need to make my name easier to pronounce, but looking back, it was definitely a way to fit in with my white friends and neighbours. My nickname at home also became Naz due to my insistence of being called that but prior to that my nickname at home had been Nazny – given to me by my late grandfather, and everyone else used to call me Nazneen. Although it may not seem significant, and on its own, it may not be, but when these seemingly small things add up, it really begins to paint a picture of continued influence of colourism, colonialism, and the reality of living in a broken diaspora. As I continued to research and read about the theories surrounding identity, initially as an undergraduate and then as a postgraduate, from having discussions with peers, colleagues, and supervisors, over the course of several years, I began to introduce myself as Nazneen rather than Naz. By now it was not about fitting in, but as I had been called that for so many years now, it had become natural to introduce myself as Naz. However, **I reclaimed my name**. My name is Nazneen, and that is my first identity. When meeting new people now, especially in professional settings, I insist on being introduced as Nazneen, and if we are spending time together working on something, if Naz becomes natural, then that is fine. Nevertheless, I am also proud of my name, and my heritage, so I feel like it must be honoured and not discarded like excess baggage.

When researching around the subject matter and truly understanding the effects of structures on agency and society as a whole, it reminded me of the racism, and Islamophobia I had faced myself in my lifetime. The subtle and not so subtle micro aggressions. One of the key things that I struggled with during this research was terminology. BAME, BME, etc. is truly problematic. On the one hand, BAME includes Asian in the term, whereas BME does not, however it also provides some unity between Black and Brown people especially as the political Black in the UK used to include brown people too. I was aware that in the USA the term used is people of colour and after some discussions with a supervisor, I was asked what I think of this term instead. At first, I wasn't sure, I took my time to think about it and really reflect and explore my own stance on whether this was the most appropriate terminology. Initially I was conflicted about the commonly used BAME and then accepted it as it was commonly used in Academia, and then deliberated some more after discussions with my supervisors about my stance on terminology and what I feel best represents me. I learnt about myself during this time, as both a brown person, a Person of Colour, a researcher, and an academic that there is value in my voice, my lived experiences, and there is no need be a completely neutral researcher. I bring a different perspective to the projects I work on, to my own research and this thesis.

This is particularly important as the subject group in this research is essentially me too, a past me who also went through the undergraduate process in the British Higher Education system.

My own struggles and experiences are parallel to the key subject group, which has sometimes been problematic for me personally. Not from an integrity perspective but rather exploring, reading, and researching the themes meant that I was also reliving traumatic experiences. Especially as much of this was during the resurgence of the Black Lives Matter movement after the death of George Floyd, where difficult discussions were taking place in all areas of life, social media, media, home, with friends, as well as reading about systemic, systematic, and institutional racism for my own research. This, added to the increase in Islamophobia during Brexit, especially women who were visibly Muslim meant that often I was unable to continue due to the saturation of the topic, and the emotional distress it caused. I took breaks for my wellbeing and physical health, but it inadvertently made me even more determined to complete my thesis; it highlighted even more the importance of my research. I had already believed in it, but during this difficult time, it cemented in my mind how crucial it was for my voice to be heard and the importance of both brown and visibly Muslim representation in higher education, not only as an educator but also within my role as an academic.

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Chapter 1: Introduction to the Thesis

This chapter introduces the focus of this research, the award gap in higher education in the UK, and more specifically, England. Whilst there has been an increase in the overall number of students participating in higher education, it is also not an accurate picture – there is more to this than simply the numbers. Strategies to increase widening participation has been successful to a certain extent, non-traditional students were encouraged to undertake a degree (examples of governmental policies include the Robbins report 1963 and the Dearing report 1997). However, despite this increase in the number overall (from 349,540 in 2016/17 to 367,540 in 2021/21 – HESA, 2022), a different problem became visible, whereby some students are awarded lower grades despite their comparable intellect i.e., the award gap. This is problematic as it is not that these non-traditional students are inherently less capable of achieving a higher award, but other factors are in play. Therefore, this research explores the many different factors that could influence how a student makes decisions at university using central administrative quantitative data.

Rationale of the study

This research uses a quantitative methodology to explore the issue of the award gap in higher education, specifically the gap between white students and students of colour (SOC - students from Black, Asian, or other ethnic minority backgrounds) and/or less advantaged backgrounds such as lower income or less affluent background. The justification of this study stems from the researcher's personal background of being a non-traditional student or HANT ('high achieving non-traditional' student, Wong & Chiu, 2019) and trying to understand the contributing factors in the differences in experiences and awards obtained between white and students of colour in higher education. Despite the term 'race', there is only one human race, and people from different localities, heritage or `ethnicity` do not have inherent differences in their genetic makeup (Frings et al, 2019) that would account for the award gap but rather other factors such as cultural identity and context (ibid.). Therefore, the central aims of this study are to investigate and explore different socioeconomic and sociodemographic factors such as being a first-generation student, the effects of household affluence, ethnic background, to examine their effects on undergraduate award classifications. Furthermore, what factors affect students final award classification in higher education? Why is there an award gap despite widening participation? How much of an effect do self-regulatory factors have on final award obtained? To what extent do structures influence student attainment?

To answer this, a quantitative study was conducted using administrative data from Manchester Metropolitan University. Central administrative data was chosen as the most appropriate method of data collection. The university collects information from students at enrolment as part of a standard process including previous qualifications, socioeconomic status, and sociodemographic factors such as ethnicity, age, sex household income. It also continues to collect data throughout the students' studies including attendance, engagement in extracurricular activities, as well as their final award. Whilst there are challenges using secondary data analysis, it is also the most appropriate and resourceful way to analyse student outcomes; the data is already collected and, with proper ethics in place, relatively easy to access (Scott Jones & Goldring, 2021).

Research Questions

- What factors affect students final award classification in higher education?
- Why is there an award gap despite widening participation?
- How much of an effect do self-regulatory factors have on final award obtained?
- To what extent do structures influence student attainment?

Research Objectives

- Identify the patterns of demographic factors as predictors, such as structural barriers in attainment between students of different ethnicities. (Model 1)

- Identify the patterns of socio-economic factors as predictors for students from less privileged backgrounds, how they affect student success in comparison to those from more privileged (higher SEC) backgrounds. (Model 2)

- Explore the effects of engagement and self-regulation at university such as attendance and involvement in extra-curricular activities on attainment levels. (Model 3)

- Create a prediction of the student trajectory and produce a breakdown of structural barriers to make recommendations to inform institutional policies and wider education policy.

Theoretical contribution

The main theories used to study the distribution gap are Archer's morphogenetic approach (1995, 2003, 2010), Bourdieu's habitus (1977, 1984), and Bronfenbrenner's bioeconomic model (1979, 1989, 2005) is included. The three concepts work well to balance agency and individual behaviour without ignoring the impact of structure and how it disproportionately limits or supports a particular student. The morphogenic approach combines the complexities of structural conditioning and the effects of individual action, and the effects of these two important aspects of society. For example, there is much debate about the impact of socio-economic factors, demographic factors, and self-regulatory behaviour on outcomes, but this study examines these and their combined effects. The interaction between these different aspects is an important feature of Archer's (2010) method of explaining the link between structural culture and agencies. They are not a single entity, but intertwined and influential with each other (Knio, 2018; Brock et al., 2019). The morphogenic approach (Archer 2010) is of great help in explaining and understanding the relationships between these aspects without confusing the role of either one.

The theoretical framework and consequently the models built from them for analysis allows the current research to examine the effects of structure and agency by creating three models. The first model examines the effects of demographic factors on final award obtained. The second model built on the first and examines the effects of socio-economic factors (structural conditioning) alongside demographic factors and the third model built on the previous two, examines the effects of agential action (agency) alongside socio-economic factors, and demographic factors. The thesis demonstrates that structure and agency are not individual concepts to be explored separately but rather that they are intertwined with continuing influence over the other, without conflating the role of either.

Methodological contribution

Whilst the current thesis was quantitative in nature, it proposes that there should be a reflexive element in all research to ensure that the statistics and the numbers reported are recognised as real people with individual lives and individual outcomes that go beyond the outcomes of the study, in essence, Reflexive Quantitative Methodology. It was through reflection and acknowledging positionality that provided the researcher with the necessary insight to be able to challenge the BAME label several years before the term 'people of colour' became more prevalent. The thesis demonstrates how quantitative studies can be used to give voice to marginalised groups, by both shining a light on the effects of structures on students' outcomes,

as well as emphasising that the research challenges the status quo, and challenges the award gap rather than simply reporting it. The thesis therefore pushes the boundaries of what a quantitative study is, not just what it can do. For instance, people undergo constant reflection in their daily lives, however, when the practice is done purposefully especially in research it can have powerful outcomes. People are generally ever-changing and therefore continuous reflection is practiced where reflection occurs at periodic intervals; thus, affecting society at large and creating a generational shift. When a researcher reflects on their decisions, actions, opinions, and assumptions, it allows for a much richer and meaningful research, even if it is quantitative in nature. This further highlights how elements of reflexivity being used in this quantitative study can benefit research impact**.**

BME, BAME, or POC?

The researcher rejects the label of BAME, and this process began four - five years ago in order to conduct this research. Initially the data was split into white and 'BAME', but this was not useful to explore differential outcomes as it is very problematic to assume that all the different ethnic groups within racially minoritized backgrounds share the same issues, experiences, and barriers (Sharkey, 2021). The only thing that people in the 'BAME' community have in common is that they are not white (Bunglawala, 2019). They are different cultures, have different backgrounds, have different experiences, and ultimately face different obstacles. Even comprehensive terminology can contribute to the structural barriers that one faces on a daily basis. Using a critical realist approach, and a reflective quantitative methodology allowed the researcher to explore and reject the label. The origin dates back to the 1960s (Ner & Gooden, 2021), when the pollical 'black' included all non-whites, then became BME (Black, and Ethnic Minority). This then changed again in the 1970s, to BAME, in a bid for anti-racist sentiment in the UK (ibid.). Whilst the use of the term BAME has already been contested for many years, it began to be questioned extensively after the death of George Floyd and the resurgence of the Black Lives Matter movement, as well as the way the term was used during the Covid-19 pandemic (Sharkey, 2021). The term people of colour[1] (POC) started to become more popular in non-academic settings as a mode to move away from a term that was used to highlight racially minoritized status (BAME). Whilst people of colour still groups together certain members of society, it is also seen as a term of unity and of empowerment (The Anti-Racist Educator, 2019). The researcher notes however, that it is not a perfect term either and there will be those who are opposed to it, who may (or may not) prefer to continue using BAME/BME. This is the nature of grouping different people together,

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[1] Not to be confused with 'coloured people'

it has the risk of losing nuance. Therefore, researchers must be very careful in how it is used, and future research aims for the sector must include an eradication of grouping terms altogether and honour individual ethnicities, cultures, and their differences. To confirm, this thesis will use the terms people of colour and student of colour when referring to students from racially minoritized backgrounds.

Chapter 2: The Purpose of Higher Education

Universities have existed for almost a millennium, and while early universities focused on the pursuit of knowledge, and religious training (Ross et al, 2018); the current climate is quite different with the massification of higher education (HE) in the UK. Almost 50% of people in the UK have entered higher education and obtained a degree between the ages of 30-34 (Clark, 2022). It raises the rather salient question of what the purpose of university is. This question has been posed many times over the past 100 years, especially as higher education has gone from educating the elite classes in business, politics, culture, and the professions, to providing marketable skills and research outcomes for a knowledge-based economy (Radice, 2013, 408). In addition to higher education being a tool in preparation for joining the labour market, it is also increasingly being used for non-educational purposes such as promoting social inclusion (Williams, 2013), and widening participation to make HE more accessible. From the students' perspective, the purpose of HE is to prepare for the labour market, for enrichment, personal growth, and acquisition of knowledge as well as to be able to contribute to societal progress (Brooks et al, 2021; Gupta, 2021).

This chapter examines the role of the university, its historical roots along with the array of policies that have driven the increase in widening participation in higher education. It also explores whether access to higher education leads to a reduction in inequalities for all groups as the rationale for HE participation. In providing this context, this chapter will provide a plotted history of universities in England and how specific policies have impacted on the high level of students currently entering higher education. There has been a slow move towards increasing widening participation[2], therefore this chapter will look at key policies that have influenced this shift, and the impact of these policies. It is important to note that the current research will focus on universities in England as there are many fundamental differences between the English and Scottish education system (The university guys; 2022). To aid in the exploration of the context of higher education, it is critical to give several levels of context and their interactions, and how they have been implemented. This chapter will do this, before moving on to discuss the role of higher education in social mobility and social justice.

Historical context of education policy

Some of the main goals of education policy as identified by Spicker (2022) have included liberal education: the development of a person, both intellectually and socially, so that a person

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[2] the increase in participation from underrepresented groups in HE

can reach their full potential; to socialise people i.e., imparting social norms and values, and the education system has also served industry and business to produce a workforce. Furthermore, it can also be an avenue for social change, such as social justice (Duncan Smith, 2012). Therefore, this chapter examines the timeline of specific educational policy change in the UK.

After nearly a millennium of equilibrium, the first major change in the HE sector came about in the early 20th Century. There was then an expansion of red brick universities between 1900 and 1909. Six red brick universities gained university status before the First World War, and the second wave introduced the next six civic universities (between 1927 and 1957). They were focused on practical real-world skills such as medicine and engineering, in comparison to the pursuit of knowledge and religious training at ancient universities (Sanderson, 2002). This was due to an urgent need for the workforce to gain the skills required because of the industrial revolution (Homden, 2018). After the Second World War, the modern welfare state was introduced, which included a greater focus on education across a person's life course. Higher education in England had historically been mainly exclusively for the elite but then civic universities were formed from local colleges who had strong links to industry; they received university status during the industrial revolution (Valance, 2016). At this time, universities were very few in number, as well as having a small student population, and until 1878 only males were allowed to attend university. Furthermore, these universities were religious in nature and the first change that occurred was in 1826 which saw the inclusion of students from any religious background or non-religious background (Lambert, 2021). The next significant change included an early type of widening participation: the inclusion of women in higher education. Initially women were able to attend university but were not awarded a degree despite passing their examinations. However, with the founding of Bedford College at University of London (1878), Lady Margaret Hall at Oxford and Somerville college (1920), and Girton College at Cambridge (1948), women were able to both engage in HE and be awarded a degree (Historic England, 2022; Lambert, 2021).

1960s

The next major change came in the 1960s with the Robbins report. The **Robbins Report (1963)** was created by a committee led by Lord Robbins in 1961, appointed by the Conservative government to review higher education and make recommendations underpinning its development. The committee were tasked with making recommendations, including whether changes should be made to the higher education system; whether new institutions should be founded and if the planning and coordination of these institutions should

change. The committee identified four key purposes of higher education: 'instruction in skill', 'advancement of learning', 'to promote general powers of the mind', and 'the transmission of a common culture and common standards of citizenship' (The Robbins report, 1963, 6-7). It argued that there needed to be a shift away from elitism, and undergraduate places be awarded to all candidates who qualified based on ability and the desire to attend university. That 'equality of opportunity for all need not mean imposing limitation on some' (ibid. 7). This was in response to those who opposed an expansion of higher education.

The report proposed the creation of six new universities and giving university status to existing colleges (see appendix 1 for a full list of university changes). The report listed many recommendations, including a recommended increase in university provision to facilitate the increase in the number of students, and that there be much more cooperation and communication between schools, local authorities, and universities to ensure wider access to higher education. Furthermore, that this increase in the number of students should not diminish research output but also that teaching and research are complementary. This was to ensure that research was not moved to separate institutes. Whilst these universities were created partly to cope with the increasing number of students, it was also a way for the university system to change and adapt to incorporate innovative pedagogy and new ways of learning (Taper, 2010). In relation to financial assistance, the report recommended that student loans not be introduced to replace student maintenance grants at this point as it would not be appropriate; there had been grants post World War two, and prior to that, students had to pay fees. This was largely due to the 1962 Education Act, where tuition fees for most students were paid by the state, and there were also maintenance grants available (Jobbins, 2013). Students were entitled to maintenance grants until **1977,** which were means tested but not a loan and the tuition fee was not abolished but was paid for by the state as it was seen as long-term investment for society (Anderson, 2016). The period between 1973 and 1981 (Heath-Conservative, Wilson-Labour, Callaghan-Labour, and then Thatcher's-Conservative government) saw a large cut in funding. This was largely due to the economic crisis as the post-war expansion had meant that most of the higher education funding came from the state, and therefore made higher education institutions vulnerable to these crises (ibid.).

Whilst social mobility was not a direct aim of increasing participation in higher education (for the Douglas-Home Conservative government) at that time, it was acknowledged that by increasing the number of graduates, it would be an indirect but welcome benefit of increasing participation (Robbins, 1963). By there being more people who are skilled in specific training implied change and even overcoming inequalities in society. However, this has not been the case. Whilst there had been an increase in widening participation, a reduction in inequalities had not been achieved (Barr, 2014). In **1988,** when the polytechnics started to become

universities in all but name, this saw a further increase in the number of students, especially students from a working-class background. However, it did not reduce inequality entirely, and academic snobbery remained in other ways, where universities incorporated it into the university system instead (ibid.). The proliferation of universities simply meant that the emphasis shifted; rather than being a graduate or not, it became which university you graduated from, implying that universities developed a hierarchy (Martin and Sorenson, 2021). There had been tension with the polytechnics as skills centres and were seen as low ranking by the traditional universities and elite groups. This was due to their focus on applied subjects such as science, technology, engineering, and medicine. Furthermore, they were viewed as producing less research than traditional universities (Scott, 2012). Therefore, the spirit of higher education, as according to Robbins (1963), had changed, rather than a way to reduce inequality, to cultivate men and women, where everyone capable can be on a level playing field, the focus became focussed on careers and employability, due to the broader change in society itself (Barr, 2014). Therefore, whilst it did achieve some of its goals, it did not achieve everything.

1990s

Whilst initially higher education was only for the elite, privileged young people, there was a shift in the 1990s when higher education became a major instrument for the employability agenda, in part brought about via the recommendations of the Dearing (1997) report. There was then an increase in civic universities which largely focussed on professions in industry. There was a further shift in the 1990s where higher education became an important tool for the employability agenda. Employability refers to a graduate's skills, knowledge, understanding, and personal attributes and their potential to obtain a graduate job (Yorke, 2006; Blackmore et al, 2016).

Another key change that took place in the 1990s was an increase in access to students from non-traditional educational background. Although there had been an increase in widening participation from previous policies, as well as an increase in the overall number of students (from approximately 108,000 in 1960 to 228,00 in 1970, to 998,000 in 1992 (ONS, 2016); there was still a lack in numbers of those from less privileged backgrounds attending/graduating from university (Connor et al, 2001). This period had also increased the number of universities again from 18 universities in 1957, to 41 universities in 1969, to 83 universities by 1994, when polytechnics were given university status. The post-1992 universities were essential in delivering mass higher education. Due to this, post-92 universities, also known as modern or new universities are sometimes viewed as inferior to more prestigious institutions (Martin and Sorenson, 2014). Scott (2012) states that this is because post-92 universities have enabled

easier access for higher education especially for those from a widening participation background, and those from elite backgrounds did not agree with this. Furthermore, that they consider university to be exclusively for those from socially privileged or wealthy backgrounds (ibid.).

As such, the **Dearing report (1997)** was created in response to the expansion due to the period after the Robbins report. It was initiated by the Major-Conservative government and implemented by the Blair-New Labour government. It was essentially an action plan to increase widening participation even further, increase the use of technology and introduced students paying for their education via tuition fees (Barr, 2014). Whilst moving away from an elite higher education system meant an increase in undergraduates, the increase in the number of students also led to less public funding for universities due to a change from an elite to a mass higher education system i.e., the funding did not increase with the increasing numbers of universities. This was partly because the Thatcher/Major-Conservative, followed by Blairs-New Labour government aimed to reduce dependence on the state and reduce centralisation as well as remove higher education from the public sector (Anderson, 2016). This meant that there was a financial, funding issue at universities. Therefore, the report proposed to 'solve' this problem by creating a new funding regime where the belief that to ensure efficiency and quality, regulating the market would be the key method to do this, and therefore a new funding regime was introduced. This now meant that higher education would produce graduates that would be suitable for the market, and shape graduates ready for their future employability (Brown and Carasso, 2013). This period saw the introduction of fees, which some have termed as the marketisation of HE (Molesworth, Scullion and Nixon, 2011; Foskett, 2010).

The Dearing report states that this could be actioned by the employability agenda, making career services and employability skills a part of education policy. The idea that by spending time in preparation for employability, it would create well-rounded graduates as future workers who would be assets to the labour market (Brooks 2019; McArthur, 2011). As the labour market is very competitive, by producing graduates who are ready for the market, it could mean that they have the qualities or skills that employers look for, making them more desirable. This included being flexible, committed, and having the ability to adapt to different tasks and situations. Therefore, these softer skills would allow the graduates to apply their technical or subject knowledge to fit the work environment (Schulz, 2008). Whilst this is a crucial aspect of higher education institutions, and a valued part of attaining a degree, it does pose the question of what the purpose of a university is. There has been a shift from advancement in knowledge for the sake of knowledge i.e., science and philosophy, to now also including the individual student in terms of employability and the focus had very much

changed to one of preparation and skills. The Dearing report states that the employability agenda is a crucial part of the higher education sector. This is relevant even in the time of the current research as employability and career skills have become an integral part of the current higher education agenda to increase social mobility (Dearing report, 1997; Advance HE, 2020).

The Dearing report aimed to foster a culture of lifelong learning, a partnership between students, providers, government, and society to ensure maximum contributions to the higher education system as well as the benefits obtained from higher education. This was a major shift in emphasis. The expectation was that it would promote a more inclusive access to higher education, which has been successful to an extent as evidenced by the increase in the number of non-traditional students attending university (HESA, 2022). This included students from minoritized ethnic groups, first generation students, mature students, disabled students, students with Specific Learning Disabilities, single parents, and students from low-income families (Christie et al, 2008; Cotton et al, 2017; Holton, 2017). However, Taper (2010) questions whether it was this policy that led to these changes, or if they would have happened anyway, especially as the Report has conflicting interpretations of the idea of university; whilst encouraging institutional autonomy and the provision of adequate public funding, but also states that the HE system should be opposed to competitive hierarchy and rigid stratification (ibid, 68).

The report's recommendations led to the Research Assessment Exercise, now known as the REF (Research Excellence Framework), establishment of the Arts and Humanities Research Council as well as institutional governance, and a greater consistency between pre and post 92 institutions. It also set agendas for HEFCE (Higher Education Funding Council for England) and QQA (Quality Assurance Agency for Higher Education). However, whilst it may be argued that these bodies improved public accountability and government influence, it has also been argued that they increased a bureaucratic framework that is time consuming, expensive, and encourages "game-playing" but did little to inform or illuminate the HE focus on employability as an effect of Dearing (Taper, 2010, 68).

As well as implementing the Dearing Report's recommendations, this period also saw the aspiration of Blair's-New Labour government that 50% of all young people should attend university as the higher education expansion was seen as a tool for economic growth (Weale, 2022). However, with more young people enrolling in higher education, it meant that more funding would be required leading to a new fees' regime. In **2004,** Blairs-Labour government set a universal fee of £1000 a year tuition fee, with a maximum of £3000. University funding

also rose by 25% during this time, which also led to an increase of a further 20% in funded students (ibid.).

2010s

The next significant change came in 2010, when Lord Browne and a committee were tasked to review the future direction of higher education funding. **The Browne report (2010)** – Independent Review of Higher Education Funding and Student Finance recommended a wide range of changes to university funding, including removing the cap on tuition fees, essentially allowing universities to set whatever tuition they wished to, which was typically £6000 - £9000. The report aimed to balance level of participation, quality of teaching and sustainability of funding (Browne report, 2010, 3). It proposed reforms to enhance the strength of HE and aimed to reduce demands on the public purse. The report stated that higher education institutions should persuade students to 'pay more to get more' (ibid, 4), a consumer model where students were perceived as consumers expected to pay fees for a service they received (Kwiek, 2018; Moutsios, 2013). This became another way to continue the separation of working class and more affluent students, much like when higher education was an elitist system. The concept of students being customers of the higher education system became prevalent, perhaps as a means of justifying rise in fees (Guilbault, 2016).

Other recommendations from the Browne report (2010) stated that students should have more choice in what they study; that everyone who has potential, should be able to benefit from HE and therefore the government raised the threshold of when students should begin to pay back the loan, with repayments beginning once graduates earn £21,000 (previously £15,000). This is in addition to unpaid loans being written off after 30 years rather than after 25 years. However, the increase in fees led to a decline in the number of mature students (DfE, 2021), undermining the government's claim that there was a consistent rise in widening participation at least on some groups. While this statement is not inaccurate in regard to high school graduates, it is false for persons aged 21 and older, who tend to either be from ethnic minority origins, may have disabilities, or come from other non-traditional backgrounds (DfE, 2021).

The introduction of Widening Access and Participation Plans (WAPPs) in 2013 were an amalgamation of the old Access Agreements and Widening Participation Strategic Assessments (Department for Economy, 2019). It was to ensure that the higher fees introduced in 2006 would not have a negative impact on widening participation (see appendix 2 for key financial changes). Support came from the Student Loans Company i.e., student finance which is a UK government-owned financial aid organisation for UK home students. However, whilst students from lower income families had easier access to higher education, it left them with lifelong debts (Lewis, 2022). For example, with the current interest rate of

4.5%, this is on average higher than most mortgages[3]. This typically means that students will pay back much more than their tuition fee and maintenance loans for those in a position to do so (threshold £15,000 - £21,00, depending on when the student enrolled). However, it can be argued that if the purpose of the increased tuition (£9000 and currently £9250) was to save public money, then it grossly overestimated what it could achieve as 45% of students will never be in a position to repay their loan and changes were ideologically driven (Wenstone, 2014).

This means that while there has been an increase in the number of non-traditional students attending university as a result of the inclusiveness agenda and the movement away from exclusivity and elitism, the gap between elite universities and less prestigious institutions continues. The majority of students from less affluent backgrounds tend to be admitted to lower-middle tier universities (Garner, 2013), which also tend to be their local university (Budd 2016; Campbell et al. 2019). This can be problematic for students as degrees obtained from higher tariff universities tend to have more value in the eyes of the employers, demonstrating a continuation of the inequalities students face in higher education (Silebarcena, 2019). Other inequalities include geographical locations. For example, students from London are more likely to be accepted to Cambridge in comparison to those from more northern cities which can further add to the North-South divide (Pells, 2016; Adams & Nye, 2013). These inequalities further highlight that academic exclusivity still exists and it is important for higher education institutions and education policy to address these inequalities as it can lead to lower societal wellbeing as well as reinforce existing economic inequalities (Silesbarcena, 2019).

TABLE 1 A HISTORY OF UNIVERSITIES IN ENGLAND

Ancient universities (1067 – 1882) No. of universities: 6	Before the 19th century, c.1067 and 1882, and introduced liberal education. Scottish universities are included here to note the small number of universities in the UK at the time. University of Oxford, University of Cambridge, University of St Andrews, University of Glasgow, University of Aberdeen, University of Edinburgh
1849 - Alexander Cromwell - first recorded black student to attend Cambridge university (age 30, who would now be considered a mature student)	
1892 - Cornelia Sorabji – first woman to take the Law exam at Oxford university (who was also Indian, and fought for the right to take the exam with male students)	
Wave 1: Red brick universities (1900 – 1909) No. of universities: 6 Cumulative total: 12	Red Brick' was coined by a professor at University of Liverpool inspired by a distinctive red brick in colour. The red brick universities of today have older origins of traditional medical or engineering colleges, which prepared students for the external examination at University of London.

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[3] The average debt for university graduates stands at £45,000 as of 2020 (Bolton, 2022).

Table 1 continued…	
Wave 2: Civic universities (1926 – 1957) No. of universities: 6 Cumulative total: 18	Only different from red brick universities based on the date of the foundation. These were established for development and focussed on science and engineering during the industrial revolution. This also included former colleges of advanced technology. They were also known for admitting students without reference to religion.
1941 - Mavis Lever (Batey) one of the first women to graduate from a university in the UK, became a top codebreaker in the Second world War (age 19)	
Plate Glass universities (1960 – 1969) No. of universities: 23 Cumulative total: 41	Plate glass universities differed from civic universities as they had they own degree-award powers, pioneered by university of Keele (est. 1949). They were known for their modern architecture and glass buildings.
1963 – The Robbins report	
Post 1992 modern – universities	
Wave 1 (1992 – 1994) No. of universities: 42 Cumulative total: 83	The Further and Higher Education Act 1992 allowed polytechnic and central institutions to be awarded the status of university and were able to award their own degrees. This was to boost skilled labour in engineering, science, and technology. Although known as 'post 92' or 'new universities', their heritage goes back to the 19th century.
1994 - The number of female undergraduate students overtook number of male enrolments for the first time (Jobbins, 2013)	
1997 – The Dearing report	
Wave 2 (1999 - 2004) No. of universities: 52 Cumulative total: 135	From 1999, higher education policy has been a devolved power. In 2004, to gain university status, the requirement of having the power to gain a research degree was dropped.
2010 – The Browne report	

The impact of higher education

Initially the focus of universities was ensuring that retention was high, and differential outcomes were not important if students did not withdraw as university was the preserve of the rich elite and based on exclusion rather than the current trend of inclusion (Gidley et al, 2010). There was an expectation that university would be a leveller between different groups in society, whatever their background. However, this did not happen despite education policy, which could be argued, has not changed much even today (Duncan, 2021). The focus has been on getting non-traditional students into HE, and this is certainly progress, but perhaps there was not enough preparation to ensure they had the same opportunities for change as others. For example, a review of research has shown that, "(a) women are more likely to obtain

good degrees than men; (b) students from a higher social class are more likely to obtain good degrees than students from a lower social class; and (c) White students are more likely to obtain good degrees than all groups of ethnic minority students, even when the effects of other demographic and institutional variables have been statistically controlled" (Richardson et al, 2020, 356). Thus, further demonstrating a continuation of exclusivity in universities in England. The Department for Education (2021) states that lower educational outcomes have a continued effect on employment rates, earnings, and general wellbeing. Thus, differential outcomes have now become a focus in more recent times. These will be discussed further in the following chapter.

As mentioned earlier, one of the keys aims of the Robbins Report was the expansion of universities and a more educated workforce. This was in terms of the number of students, the type of student, as well as the overall number and size of the university. This expansion and move away from the elite to mass education system was a response to the industry which facilitated an increase in the number of graduates. Despite women and other minority groups entering the higher education system, it did not eliminate the class bias (Barr, 2014). This report also introduced transformation from private education to higher education being a national system. This was to create knowledge that would be useful for economic opportunities and growth as well as knowledge for the sake of knowledge. Furthermore, higher education would increase the skills of the labour force by increasing technical skills and using higher education as a springboard for their future career.

Not only would higher education help to shape graduates for employment, well-roundedness and more desirable in the labour market but the increased access to university education was intended to lead to less unemployment, a reduced dependence on public welfare, and generate greater tax revenue through enhanced levels of employment (Anderson, 2016). In addition to economic growth, it can improve civic and political engagement as well as improving wellbeing and general quality of life (Hunt & Atfield, 2019). Robbins (1963, 7) also argued that higher education was a path to share 'common culture and common standard of citizenship', therefore when higher education is more accessible and available to all who desired to attend, it would have wider benefits to society. Some of these benefits would include community building with local organisations, the increase of a diverse range of students attending the university would also mean an increase in multiculturalism in the town/city, both home and international students which brings broader indirect benefits such as sport, recreation, theatre, music, food, and drink (Brennan et al, 2013).

Overall, the importance of university has been a topic of discourse for many generations however the purpose of higher education has been influenced and changed over time based

on governmental policies. The Robbins Report (1963) on higher education was a catalyst for the expansion of the higher education system as well as the connection to employability (Barr, 2014). The Dearing Report (1997) was created as a response to the vast increase in participation, to the structure, and introduced the concept of graduates contributing to the cost of their education via tuition fees, and therefore the beginning of the marketisation of HE (Molesworth, Scullion and Nixon, 2011). The Browne report (2010) introduced some of the biggest financial changes with lifting the cap on tuition fees. Assessing the impact of these policies shows an increase in inequality and fluctuating consequences over the years (Barr, 2014). The policies set out to do much more than they have achieved. When lower-income families, less privileged or socially disadvantaged families cannot improve their circumstances and the socially advantaged or privileged classes remain privileged, it can have economic, social, and political consequences (Rylance, 2022). For instance, where an eradication of inequalities can boost the economy and represent more opportunities for individuals, an increase in productivity can lead to better matching of talents and jobs in society as well as an increase in civic participation and improved wellbeing; continued inequalities can have the opposite effect, it can mean that certain individuals are unable to reach their potential (OECD. 2018) which has been a consistent theme with these policies. Despite political agendas and policies aiming to provide opportunities for individuals to improve their circumstances, this has not happened to its fullest extent. Consequently, social mobility, social justice and social equity has become a part of the higher education agenda which will be discussed later in the chapter.

There are many different types of benefits and advantages to higher education. Whilst universities do play a role in preparing students for postgraduate employability in their respective fields with technical and academic skills (Haigh and Clifford, 2011) there are also social and economic benefits as well as improved health and life expectancy (Cbyhan, 2016). Other benefits include social mobility, such as the opportunity to an increase in social, cultural capital that being in higher education brings (Millburn, 2012). However, this must be treated with caution as there is the possibility that higher education may bring advantages to some people whilst not affording the same opportunities to others, for example, the amount of debt that is obtained for those attending university. From what was free to the elite of the UK with even a maintenance grant, attending higher education is now a highly expensive affair with estimates of debt per student in 2020 standing at £45,000 (on average). This demonstrates in part, how the education system still privileges the wealthy, despite widening participation agenda and a more inclusive admissions policy.

Social mobility and higher education

Social mobility is the transition of individuals, families, or groups in society from one social position to another, such as low-income families earning more (UniversitiesUK, 2016). However, there are many different strands of social mobility. This includes absolute mobility - the percentage of individuals who are in a different class from their origin as well as relative mobility - changes in individuals of different origins arriving at different destinations (Rolfe, 2017). This is in addition to intergenerational mobility - changes between generations based on income, education, occupation and health and intra-generational mobility - changes in social and economic situations of an individual's life course (Rolfe, 2017; OECD, 2018). However, it is not a perfect concept. There are major limitations to it, which have been critiqued in recent times. For instance, despite social mobility being a point of discussion in British politics, where there have been action plans created to reduce inequality by increasing opportunities and placing an important role in education policy, there has been little change in class positions of individuals in comparison to their parents (Bukodi & Goldthorpe, 2011). Their findings show that those children whose parents are in managerial and professional jobs are 20 times more likely to work in similar positions in comparison to the working class i.e., those from graduate households are more likely to become graduates themselves. This demonstrates that although education is given high importance, it has not been a 'great leveller' (ibid, 1), especially when education has been singled out as the 'route to social mobility' (Bathmaker et al, 2013, 723).

The effects of higher education on social mobility and social stratification have been well documented (Ianelli, 2013; Nazimuddin, 2014; Goldthorpe, 2016; Arifin, 2017; The Sutton Trust. 2017; Rolfe. 2017) who report that education is a key mechanism in addressing the problem of a standstill in social mobility. Whilst there has been an increase in participation in higher education (HESA, 2022) and those who graduate from first degrees earn more on average than those who do not (DfE, 2021), there are still significant differences. For instance, students from lower socioeconomic status or lower-income families still earn less or end up in lower-level occupations compared to their counterparts (Behle et al, 2015; Britton et al, 2015). Therefore, the importance might not only lie in increasing the number of students graduating overall or looking at the effects of higher education on socially advantaged students, but specifically those from lower-income families and other non-traditional backgrounds (Marginson, 2016). This is key, as evidence shows that there are differential outcomes despite an increase in the number of non-traditional students enrolling on higher education courses (HESA, 2022).

Whilst the key aim of the widening participation agenda has been successful to an extent, it would be negligent to ignore the differential outcomes between different types of students (HESA, 2022). Whilst higher education is seen as the route to social mobility, it may be more appropriate to explore the connection between higher education and reducing inequalities, i.e., addressing social injustice. Higher education plays an important role in this as the transition period for young people, before entering the work force (Brooks et al, 2019). Therefore, higher education institutions could continue with the inclusivity agenda by committing to address social, cultural, and economic inequalities faced by students as a result of any unequal distribution of resources i.e., institutional habitus. Furthermore, the investigation of which factors play a role in these differential outcomes is more important than ever, and therefore the current research explores this in detail in the following chapters.

Chapter 3: Theoretical Framework and Literature Review

To the casual observer, it would be easy to think that widening access to Higher Education regardless of background provides a level playing field and equal chances for all to reach their full potential. Since the onset of the widening participation to HE agenda start, close to 50% of all young people now attend university (Clark, 2022). With such increases in attendance, it has also seen the growth of non-traditional education route students such as mature students, students from racially minoritized backgrounds, first generation students, students with disabilities and students from working class backgrounds (Wong & Chiu, 2019, Murtagh et al 2016; Reay 2002; Richardson 2012; Ridley 2007). Both societal and university structures impact on how higher education is experienced by different groups and cannot simply be a consequence of individual actions as factors external to them could also be of influence. This chapter focuses on exploring the notion of a level playing field, whether the concept of meritocracy is a myth (Wong et al, 2020) - especially as students do not receive the same opportunities (Reay, 2021) - and how education can be a means for social equity; a way to reduce inequalities and provide a fairer and more equitable experience (Guy & McCandless, 2012; Ross et al, 2018; Rowan, 2019).

The current research will use Archer's (1995, 2003, 2007, 2010, 2012) structural conditioning to explore how an individual's familial circumstances, upbringing, and experiences will affect their life outcomes, and more specifically, higher education outcomes. It will also develop Bronfenbrenner's (1979, 1989, 2005) bioecological systems approach to further unpack familial influences with the suggestion that a person is in part a product of their environment, including family, school, friends, and where they live. Bourdieu's (1986, 1997) notion of habitus will be used and developed to help understand the extent of the impact of these influences. Furthermore, as some of the external-structural barriers that an individual may face will have a more negative impact than barriers others may face. Archer's (1995, 2010) morphogenetic cycle helps to examine these effects and explore what can influence a positive change. These theories overlap in certain areas such as structural conditioning, and structural elaboration. Furthermore, the morphogenetic approach allows us to view the complexity of the influence of structural conditioning and agential action and the effects of these two crucial aspects of society in a combined study.   For instance, whilst there is much on the effects of socioeconomic factors, demographic factors, and self-regulatory behaviour on outcomes individually; this study examines this and their combined influences. The interplay between these different dimensions is a key feature of how Archer (2010) explains the relationship between structure, culture, and agency. The current chapter demonstrates why all three approaches complement each other and allow for an in-depth explanation.

The structure and agency debate

When considering the widening participation agenda, it is important to consider the tensions between the societal structures that function as barriers for some students and a student's individual agency if a depth of understanding of the contemporary HE climate is to be acquired. Structure is a complex framework in society which influences or limits individuals or groups in their choices and opportunities as social structures generally have an influence on and individuals' behaviour (Little, 2017). It does this by the interplay between different institutions such as, government, schools, economy, and social norms (Crossman, 2020). Agency on the other hand, is the capacity of individuals to act independently and have the power to make their own choices (Abdelnour et al, 2017). However, it often is not as simple as that and the debate surrounding the two opposing yet connected concepts continues to divide sociologists. On the one side, there are those who insist that structures create constraints and there is little to no agency. On the other, there are those who argue that everyone can make their own decisions regardless of their structural constraints. There is evidence to support both aspects. Structure and agency are central to gain a better understanding of the barriers that exist for some groups of students. Without consideration of structure, it would be essentially blaming the student for their lack of achievement when in reality, it is known that the higher education system is far from a level playing field (Bathmaker et al, 2013). However, to help understand the implications of the structures, sociologists look to understand the causes by examining the effects of structures, groups, institutions and how individuals interact within these contexts. This is where the divide in opinion on structure and agency comes into action.

The Theoretical framework

The theoretical framework for the current research will be based on the work of Archer (1995, 2003, 2007, 2010, 2012), Bourdieu's habitus (1984) and Bronfenbrenner's bioecological model (1979). The concept of the morphogenetic approach is a complex process and to aid in understanding what is meant by structural conditioning (the first stage in the cycle), Bourdieu's habitus and Bronfenbrenner's bioecological cycles go a long way to explain and understand this process. Archer (2010, 247) separates the role of structure, culture and interaction which allows for 'theorising about the influences of men on society and vice versa'. For instance, Archer (2003) states that individuals negotiate between the self and structure via reflexivity and internal conversations; that there are many different aspects of decision-making where individuals are being confronted more and more with making choices. This can include scrutinising goals and revaluating if it still the right choice for them or if it needs to be adjusted. Archer (1995, 2010) discusses the notion of morphogenesis, and the different types

of reflexivity such as 'conversational reflexivity', which is completed through shared conversations, 'autonomous reflexivity' – rational decision making weighing up the cost/benefits, and 'meta-reflexivity' – reflecting on their reflexivity. Whichever type of reflexivity an individual relies on, the outcome is similar; they can transform their situation. This is in addition to the effects of engagement on academic achievement, which informs the measures and model for this research. For instance, knowledge structures based on external factors such as environment, parents, institutions, and personal experiences will inform how individuals engage at university, both academically and socially (Bourdieu, 1977; Tinto, 1993). Whilst some of these can be by chance such as location, levels of parental income, and level of privilege, it can also include habitus, the passing of knowledge from family, cultural identity, and experiences whether this is intentional or indirectly.

The morphogenetic approach (Archer, 1995, 2010) explains the interplay between structure and agency via the morphogenetic cycle, which has 3 phases, **(1) Structural conditioning**, which conditions **(2) Social-cultural interaction**, which leads to **(3) Structural elaboration.** Structural or cultural conditioning is the interplay between cultural and structural experiences. How they must be kept separate, and to not conflate the role of either aspect. Social interaction refers to peers, tutors, university culture, and actions at university. Structural modification refers to how individual changes lead to structural changes and overall reflexivity, and the cost of action to achieve goal. That university can be a transformative experience, where backgrounds and structural constraints do have an impact, but the individual can make choices to counteract these. The current research explores how much impact structural factors and agential[4] factors have on students' differential outcomes based on a students' educational and cultural background. The research used Archer's ideas to help explore how these differential outcomes happen.

The current research presents Figure 1, a diagram the researcher designed to help explain the complexity of the morphogenetic cycle and how the theoretical framework combined explains the effects of structure on agency, and agency on structure. The diagram demonstrates stage 1 as **structural conditioning**; this includes factors from birth such as demographic factors, the family and neighbourhood, and other structural factors. This is the interplay between cultural and structural experiences. However, it is important not to conflate the role of structure. This has an impact on an individual's **social interactions** (stage 2). In the case of higher education, this includes the decisions that a student makes at university, how they interact with their peers, students and ultimately their actions. Thus, leading to stage

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[4] Agential factors include choices that an individual makes on their own, such as whether to attend lectures, demonstrating agency (Baker, 2019)

3 – **structural elaboration**. Based on the decisions, and actions in stage 2, the outcomes are determined. It is important to note the role of stage 1 on stage 2; in the same way as not conflating the role of structures, the role of individual agency must also be controlled. This cycle does not end here, with reflexivity, the cycle continues in a continuous loop where each stage has an impact on the next. Rather than an exclusively 'structure or agency' debate, Archer (1995, 2010) suggests that it is a cycle where there is no start or finish as such but rather, structure influences agency influence's structure.

FIGURE 1: ARCHER'S MORPHOGENETIC APPROACH – A CONTINUOUS CYCLE
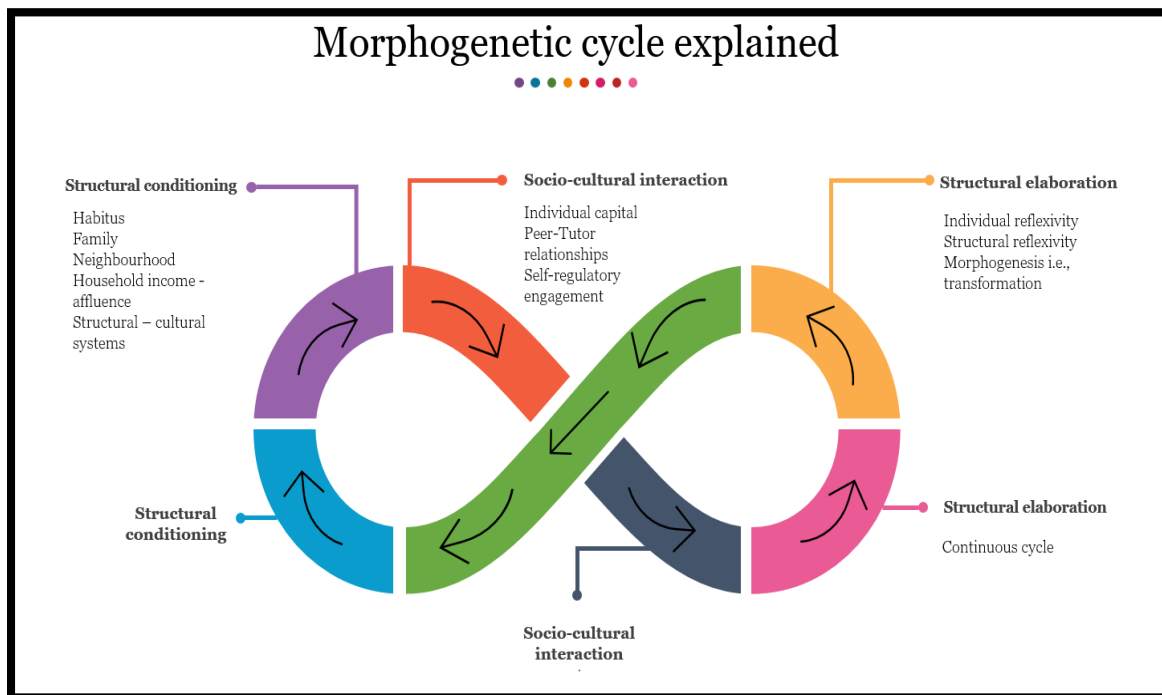
Morphogenetic cycle explained

Structural conditioning
Habitus
Family
Neighbourhood
Household income -
affluence
Structural – cultural
systems

Socio-cultural interaction
Individual capital
Peer-Tutor
relationships
Self-regulatory
engagement

Structural elaboration
Individual reflexivity
Structural reflexivity
Morphogenesis i.e.,
transformation

Structural conditioning

Socio-cultural interaction

Structural elaboration
Continuous cycle

To understand how individuals are influenced to be the way they are, their social identity, and how they approach their decision-making, it is important to understand how society affects the individual, which then has further impact on them whilst in HE. This interaction between societal structures and the agent are argued to be a fluid, never-ending cycle (Archer, 1995, 2010; Bronfenbrenner, 1979) meaning that this is bidirectional process whereby each has an impact on the other. Bronfenbrenner's evolving bioecological system provides a complex understanding of the different factors involved in an individual's development (Slomp et al, 2018), especially their early years which has a continued influence into adulthood so is helpful with the current research exploring how unintentional institutional bias/habitus can impact on individuals from non-traditional educational backgrounds. The bioecological systems originated as the ecological systems theory with an explanation of development via the microsystem (family, school), mesosystem (interaction between microsystems), exosystem

(indirect effects of microsystems such as family circumstances, household income), macrosystem (cultural and societal beliefs such as institutional habitus) and the chronosystem (indirect effects of life events such as the Covid-19 pandemic)- (Bronfenbrenner, 1979). Figure 2 is a demonstration of these systems.

FIGURE 2 THE BIOECOLOGICAL MODEL EXPLAINING STRUCTURAL CONDITIONING
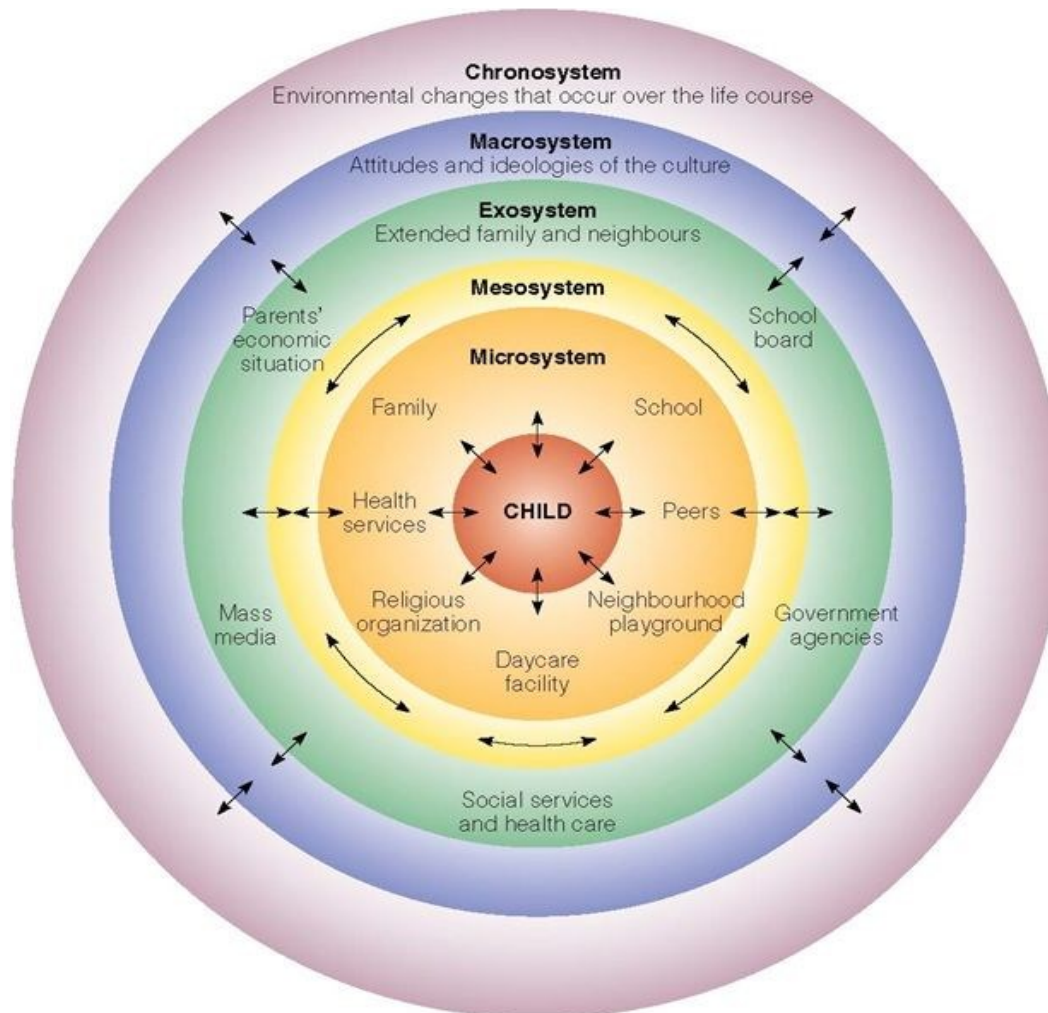
The effects of these structures lead to structural conditioning (Archer) and/or habitus and disposition (Bourdieu). In the current research, Bourdieu's notions of 'habitus and 'capital' are also used to help explain the effects of structural conditioning and therefore the possible differential outcomes. This is explained by a simple equation created by Bourdieu (1984), which will be clarified below.

(Habitus + Capital) + Field = Practice

Habitus is the physical embodiment of cultural capital, the deeply ingrained habits, skills, and dispositions that individuals possess due to individual life experiences and is often the

overriding way of acting within the dominant sphere (Gaddis, 2013) i.e., university students must adopt middle-class habitus to do well. Although students are raised with a certain habitus, it may not do them well in other contexts. **Capital** is the resources that are available to them which would be valuable in that given situation, such as familial capital, cultural capital, economic capital, and institutional habitus such as the organisational culture linked to wider socioeconomic education culture (McDonough, 1997; Reay, 1998; Reay 2010). For example, knowing that there are certain expectations, and how to mobilise their capital whilst at university. This can include the difference between solely focussing on the academic aspect of higher education and understanding how to utilise the support available, that learning goes beyond the classroom via interaction with peers etc. It is important to note that individuals will have different levels of capital based on their background. The **field** is the event i.e., university or higher education and **Practice** is the outcome of that event (Gaddis. 2013).

## Understanding the Morphogenetic approach

To understand how individuals are influenced to be the way they are, their social identity, and their decision making, this thesis broadly centres on the impact of knowledge structures. This includes the different systems in human development (Bronfenbrenner, 1979), and how they interact to inform agency. A person's view of the world and themselves are often based on factors such demographics; gender, ethnic group, religion, etc.; which are largely out of their control, at least at the beginning stages of their life, (later this would also include the combination of structure and agency). For instance, there are many layers to our development; an individual has many structures that help to inform their personality, confidence, self-awareness, and how they process the world around them. This includes the individual themselves, family, school, friends, and work (Bronfenbrenner, 1979; Raffo et al., 2010; Archer, 2010). However, whilst all these factors have an impact on our view of the world and ourselves, there is also an element of agency.

Despite different opportunities presenting themselves based on these structures or ecologies, everyone also can manipulate this to a certain extent. These different structural, cultural, and individual processes can both enable or limit how individuals navigate between structure and agency (Raffo et al., 2010). This combined with the 'outcomes of exploratory experiences, verbal instruction, and cognitive synthesis' (Bandura, 1997, 24) at university adds to knowledge structures, expectations, and funds of knowledge (Gonzales et al., 2005). How these expectations are then achieved is largely informed by individual self-regulation and level of engagement, the interaction between social, cognitive, motivational, and contextual factors (Pintrich, 2004). Whilst habit does influence decision making, once reflexivity is engaged, the

effects of habit are limited (Archer, 2010). For instance, Archer's theory would suggest that when a person begins to reflect before making decisions, they will either choose to do something different from those choices before them by paying the opportunity cost or actively remain in a similar situation. Therefore, this combination of external factors and engagement, determination, and positivity have an impact on how an individual behaves. This is not just by attending university but also their performance while at university such as academical engagement (attendance, placements, volunteering, and extracurricular activities overall). Such engagement can increase feelings of confidence, competence, and capabilities, so are important in understanding student success (Reay et al, 2010; Bathmaker et al, 2013).

This is particularly true as habitus is not a fixed concept; it changes depending on the context (Navarro, 2006). For example, the interaction between agency and structure is shaped by the past and current events, opportunities, and constraints of the individual, unconsciously. That is unless they encounter a specific event in their life that causes them to question themselves and their life. Although habitus makes it more likely for a person to behave in a certain way or what they think is expected for a person like them, it does not mean to say that they cannot change this (ibid.) or that their habitus is fixed. Whilst it is not fixed, change is slow. Habitus is permeable and can change in response to what is going on in that moment because habitus is not only based on the past but also the present. For example, although a person's institutional habitus may not match that of the institution, for instance, coming from low socio-economic class background or being first generation students, when given the opportunity and the right support, they are provided with a greater opportunity to be successful the same as those who have not experienced such barriers.

Bourdieu (1984) stated that this is a choice, and we can reinvent ourselves (reiterated by Wong & chiu, 2019, Gee, 2000, King, 2011, Reay et al 2010). When cultural capital and habitus are intertwined and are presented with an opportunity such as a university, and when it is not a familiar field, it can lead to transformation. However, it is important to note, that although choice is a factor, and transformation is possible, the choices an individual is presented with will also depend on their habitus such as personal history, family, socio-economic class etc. as well as their social and economic capital. Thomas (2009) suggests that there is hope that even though universities are run by dominant white middle class groups, it still leaves the possibility of building an alignment between the institution and the student. So, what is the link between the morphogenetic approach and differential outcomes? The structures that create familial habitus and conditioning can have an impact on this.

These structural factors are important as they have been found to be implicated in the differential outcomes' students in the HE experiences. By investigating these structural

factors, such as socioeconomic status, affluence, polar level, tariff points at the entry of undergraduate degree, whether the students' parents come from a higher education background themselves or the students' engagement with both their course and their peers. In addition to how the effects of these on differential outcomes are connected to habitus and structural conditioning, social, economic capital, and institutional habitus can help us to support student success. In expanding access to higher education however, it is important that we see the heterogeneity of widening participation students and the complexity of their experiences (Thompson 2017), as widening participation students should not be considered as a homogenous group.

The notion of habitus and structural conditioning is crucial here and is being used in the current research to explore and understand how structural conditioning takes place. Part of familial habitus is the structures in society which help to inform how a person develops, how the barriers they may face can influence their future decisions, their disposition, and self-confidence (Bourdieu, 1977, 1984; Reay et al, 2002; Reay et al, 2005). Criticism of Bourdieu's theory includes that it conflates the role of structure and agency (Archer 2007, 2010, 2013), as it does not allow agents to confront their circumstances, leaving no room for reflexivity. Elder-Vass (2007), Sayer (2010), Sweetman (2003) tried to reconcile habitus and reflexivity, but Archer (2007, 2012) finds problems with these, that they do not consider the instability of structural changes and does not agree with how habitus can be formed when there are constant changes. Whilst Archer (2007) rejects Bourdieu's (1997) habitus, the current research argues that the concept of social, economic, and cultural capital help to understand the circumstances that are not of an individual's own choosing. Particularly as habitus is slow but not fixed; it has the capability to form based on the different forms of capital. However, criticism of Archer's theory has been criticized that by putting too much emphasis on agency, it can put the blame on the individual without considering societal issues, especially when recognising social inequalities (Burke, 2017, 58). Therefore, to understand these concepts better, this research adapted Bronfenbrenner's bioecological systems to explain how habitus and structural conditioning is created and maintained.

Further explaining the development of structural conditioning

Bronfenbrenner's (1979) bioecological systems eventually became the Bioecological theory as Bronfenbrenner continued to develop the theory and ended with three distinct phases. The first phase was the original theory from 1973 – 1979 culminating with the addition of the chronosystem as a final layer in 1979, where socio-historical events also play a role in interactions and decision-making. This is particularly important to the current research as

differential outcomes still exists in higher education despite attempts to reduce inequalities such as educational policies to increase widening participation. How much of an impact does an individual's interactions with societal structures have on the number of barriers they must overcome? especially in the context of higher education.

The second phase included adapting the theory to consider development processes as well as beginning to consider the role of the individual (1980 – 1993). With a continued desire to keep reflecting, engaging, and building on the theory (1993 – 2006), the third phase included Bronfenbrenner developing the PPCT model (Process, Person, Context, Time). This evolved version aimed to provide a better understanding of these processes as they are crucial to understanding the systems as a whole (Rosa & Tudge, 2013). The systems or layers on their own without the PPCT model are incomplete and provide little explanation of how interactions influence each other. Again, it is crucial to understand how these interactions make up the habitus, self-worth, and confidence of the individual to understand why there is such a big award gap.

These four aspects of the PPCT model intertwine with the bioecological model; this also includes the unofficial layer of individual characteristics (Slomp et al, 2018). The individual unofficial first layer is often taken for granted but important to consider as it is one of the first fundamental interactions or development process a human experience. Their age, their sex, and their ethnic background regardless of their location. The location will play a role in determining decision processes externally but before this is even coming into play, age, sex, ethnicity and health and background will be at the heart of the systems, the nucleus in essence (Bronfenbrenner, 1979). It is necessary to unpack this to show the importance of this theory to the research as all of these factors separately and collectively will have an impact on their HE experiences and differential outcomes, which is the focus of this research.

The process is the role of systematic interactions that occur regularly, which requires active engagement with the environment as well as other individuals. The proximal processes are complex give-and-take exchanges between an individual and their environment. They must occur regularly over extended periods (Bronfenbrenner, 1995). Depending on the interactions a person may have had, it could lead to either manifestation of difficulties, or barriers to overcome in a disadvantaged background or lead to competence and success in a more advantageous environment (Bronfenbrenner and Evans, 2000). However, this can still change as this process is not static and can strengthen development by being exposed to and interacting with culturally appropriate resources and instructions (Siraj & Huang, 2020). In this case, institutional habitus is knowing how to navigate university culture, both academically and otherwise. For instance, non-traditional students may feel they are taking more space than

they deserve if they take up the lecturer's time to ask for extra support. This can stem from not wanting to show weakness by asking for support or having a fear of giving the impression that they do not belong (Hawe and Dixon, 2017). Some students often find it difficult to seek support, feeling uncomfortable, have a fear of the unknown about speaking to tutors. Some students avoid receiving support to come across as independent learners (Wong & Chiu, 2019). Whereas their more privileged counterparts may already know that asking for support or taking up offers of support is expected in the university environment (ibid). Understanding these interactions is crucial to explore what factors affect final awards obtained in higher education, especially with the large award gap that does not seem to reduce despite widening participation.

Person – The role of the individual such as age, gender, health. A person brings resources and personal attributes to the interaction that shapes each of their interactions with the physical and social environment such as a persons' physical appearance, physical handicaps, whether a person smiles or frowns (Bronfenbrenner, 1979). Whilst it would be easy to focus on these simpler aspects of appearance such as facial expressions, or physical deformities or disabilities, it is crucial to note that there are other aspects of appearance that can have an even larger impact on interactions in some ways. The perceptions and stereotypes associated with certain groups could lead to positive or negative interactions that can build up over time to shape their experiences. For example, this can also include 'colourism' in non-white communities where lighter skin is considered more appealing, and are even more likely to be seen as desirable, for employment, friendships, and marriage (Shaikh, 2017; Mishra, 2015; Phoenix & Craddock, 2022).

Context – The five nested ecological systems that provide context for development. This includes the microsystem, mesosystem, exosystem, macrosystem and chronosystem (Bronfenbrenner, 1979). This is the core aspect of this theory, which largely supports the concept of habitus, how an individual's experiences lead to differences in levels of capital at their disposal (economic, cultural, and educational). The individual is the nucleus. The first layer is the microsystem -the immediate interactions such family, school, and friends. Followed by the mesosystem – the interactions between the different aspects of the microsystem. The exosystem is the next layer, which is the indirect effects of the micro and mesosystems such as the families' circumstances. This is then followed by the macrosystem - the cultural and societal beliefs an individual may have based on their experiences. For instance, privileged students may have certain beliefs of academic aspirations alongside understanding the importance of extracurricular activities and may be better placed to mobilise their capital, whereas less privileged students may not have the same set of beliefs or self-esteem

(Bourdieu, 1977, Tinto, 1993). The outer layer is the chronosystem – the indirect effects of personal life events. For example, losing a job, getting a divorce, a death in the family etc.

Time – Time influences the systematic interactions over time, such as moral and beliefs passed down from generations due to socio-historical events. For instance, the Covid-19 pandemic may have an influence on students at all levels, from nursery, primary to higher education on how they interact with others, the opportunities that will be available to them, the decisions they make due to the changes in how we shop, education and socialise. Especially as this it is a global pandemic, moving around, as citizens of the world will be limited or certainly a sense of caution and fear (Calbi, et al, 2021). Other examples of socio-historical events include student experiences of the discussions surrounding the Black Lives Matter movement which could have direct and indirect effects on students own development, worldview, and decision-making skills.

One critique of this theory was Bronfenbrenner did not initially emphasize the individuals own active role in their development (Valez-Agosto et al. 2017). However, the bioecological systems theory was updated to include acknowledgment of age and gender (demographical facts) as the first unofficial layer and including the chronosystem as an added layer. The model was further adapted to include the PPCT model as influences for each system. Critiques of the newer version includes that the proximal process is vague, and macrosystem is largely ignored (ibid; Elliot & Davis, 2018). However, the current research takes this into consideration and uses measures to explore the influences of the macrosystem (engagement at university in the form of attendance, and participation in extracurricular activities). Furthermore, the balance of structure and agency is a delicate balance, and the use of Archer's (1995, 2010) theory and emphasis on individual agency considers any imbalance. This theory goes a long way to demonstrate how structural conditioning takes place in the first instance as it puts the student at the centre of their learning and development which allows for the investigation of structures that may act as barriers for some. This combined with Bourdieu's habitus demonstrate further how barriers and drivers that are linked to success or lack of success. The three concepts work well together to balance agency and individual action, without ignoring the effects of structure, and how they can disproportionately constrain or support any given student.

Barriers/constraints stemming from structural conditioning

As over a quarter of all students who graduate from university obtain a first-class degree, it becomes especially important to explore the differentials as non-traditional students continue to be least likely to do so (Wong & Chiu, 2019; HESA, 2022). When students enter higher

education, they face barriers or obstacles from a variety of sources; especially if they are from non-traditional education backgrounds. For instance, for one student, they may be a first-generation student with reduced institutional habitus needed to excel in higher education. This can be the experience of many non-traditional students. This typically includes students from working class backgrounds, students from low-income families, disabled students, first generation students, and students from racially minoritized backgrounds (Christie et al, 2008; Cotton et al, 2017; Holton, 2017). A common experience is that the system is unintentionally biased against these groups and can often mean that they may not be culturally aware of what is required or expected of them to be able to excel in all areas of higher education.

The concept of habitus and structural conditioning, introduced by Bourdieu and Passerron (1979) and Archer (1995, 2010) as well as Bronfenbrenner (1979, 2006) accounts for the structural differences between different groups, and these structures then shape or constrain a student in their higher education journey, was adapted into institutional habitus. Institutional habitus may privilege some students more than others, leading to unequal outcomes (bryd, 2019). The current research explores the effects of structural conditioning, include familial habitus, institutional habitus, and socioeconomic class on student outcomes, of which the award gap is one and one that impacts the most on people of colour[5].

Students of colour and the award gap

When exploring the differentials between non-traditional students such as those from racially minoritized backgrounds i.e., students of colour, one of the main focuses of the current research is to explore the differential outcomes for people of colour. Whilst not the experience of all students of colour, previous studies have demonstrated a pattern of some students being awarded lower final awards (HESA, 2022) for the same cohort year as the current research shows that 27% of white students obtained a first class degree, followed by Asian students at 19% and 11% of black students), but this is not determined by the students lack of intelligence, or ability, or their ethnic background but rather other confounding variables (Richardson 2015, DfE, 2019).

The barriers students of colour face in terms of their experiences both in university itself as well the factors leading up to the point of higher education having an impact on their confidence, lack of belonging to the campus and university and can often feel out of place (Wong & Chiu, 2019). Furthermore, if students are from a racially minoritized background as

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[5] The current research rejects the contentious term 'BAME'. Whilst people of colour also groups together different ethnic backgrounds, it does so on its own terms, rather than being racially minoritized where whiteness is the considered the default (The Anti Racist Educator, 2019)

well as being a first-generation student, or from a lower income background, then these factors combined can create unfair disadvantages which are not a deficit or fault of the student but rather the structural inequalities they will have faced during their developing years (Bourdieu, 1977; Tinto, 1993). Whilst not all students of colour have the same experiences, and are not a homogenous group, the award gap makes it important to explore what factors are influencing this differential outcome as white students are more likely to be awarded higher final awards (Broecke & Nicholls, 2007; Conner et al, 2004; Elias et al, 2006; Leslie, 2005; Naylor & Smith, 2004; Owen et al, 2000; Richardson 2008, 2012).

Historically, meritocracy was considered the route to academic success, however it can be argued that meritocracy in higher education is a myth (Bedingfield, 2020; Wong et al, 2020; Reay, 2021); whilst it can work for some, it does not work for some groups (Arday, 2018). It is important to not disregard an individual's circumstances, structural conditions or where they start the higher education experience from (Bowers-Brown et al. 2019). It is also assumed that in order for students to be successful, they must increase their aspirations (Abrahams 2018, Allen 2016, Grim et al 2019); this actually reduces the role structures play in aspirations and gives the impression that everyone starts from the same point, with the same type of institutional habitus. For instance, young people from disadvantaged backgrounds are not necessarily lacking aspiration but rather the conflation of meritocracy shifts the blame and responsibility on to the individual (Bowers-Brown et al, 2019) This is important because this is in part the institution culture that then acts as barriers for some students of colour (Gilborn, 2017).

Everyone has multiple identities, but when students feel there is incompatibility between the different aspects of themselves, such as their university student identity, religious identity, cultural identity or caring identity, the split between them may prove to be difficult to reconcile (Frings et al, 2020). For instance, engaging with their programme and attending lectures but then needing time or space to perform religious duties, or parents needing to get back to children, or other responsibilities like paid work etc. This can also include students from lower SES backgrounds and first gen students who feel they do not have anyone to talk to in their family or feel like they have to balance the different aspects of themselves without an outlet. Therefore, it is important to understand why some students do well, and others do not (ibid, 182). For some students, English may not be the language that is spoken in the home, which can then have an impact on their academic writing, which in turn can affect their grades (Shaw, 2013).

For some, it can be a balance of keeping cultural heritage alive but also needing additional support with academic skills. For example, speaking the cultural heritage language in the

family home may mean that students think in their home language, and then translate to English for assessments and may not be able to articulate as well as other students, despite understanding the content and able to think critically. Furthermore, assessment anxiety can also produce reduced attention and cognitive capacity (Steele, 1992, 1997). Whilst support exists in terms of writing projects and academic study skills, perhaps policy could account for additional support. Especially when high grades rely on academic writing skills. This could be the case for international students as well home students with different languages used in the family home (Shaw, 2013). It can be quite conflicting to balance cultural heritage and keeping languages alive, whilst also trying to achieve their potential in university. For example, some students will be able transition and acclimatise faster than others, by deviating from what they think is expected of them despite the challenges they face (Leathwood, 2006). This could be in part due to the increase in inclusivity and awareness from higher education institutions. Student integration and retention has been a priority for many institutions since the rise in tuition fees (BIS, 2011).

It must be noted however, that this will not be the case for every student of colour, and some disparity will be due to how assessments are marked in the first instance, as well as some unintentional unconscious bias in part which requires further review (Bowser, 2017; Richardson, 2008, 2012; Osler, 1999). Furthermore, the transition period of becoming a university student can be stressful for most students, and by acknowledging that this transition is more difficult for some students than others, it may be useful to provide support in reconciling them. For example, utilising the different identities in a positive way where connections can be made to help transition by creating a sense of continuity (Amiot et al, 2007, 2012). This could be the by facilitating social events with a society/club, seminar group or other uniting factor that students can recognise within themselves, which can be the connecting factor that can help students to share resources, social support, and a sense of community. Ongoing negotiation and reconstruction of identity is perhaps needed (Wong & chiu, 2019, Gee 2000, King, 2011, Reay et al 2010) as students continue to familiarise themselves with university culture especially as some students have concerns about fitting in and are self-conscious in relation to assessments and their ability to complete them to the standard expected (Wong & Chiu, 2019).

Representation could play a large factor in these differentials, and often this can be seen in terms of faculty and people of colour in leadership roles. When academics from racially minoritized backgrounds tend to be employed in entry-level or fixed-term roles in universities (Bhopal and Jackson, 2013), it can add to this disparity. Academics of colour continue to be underrepresented in senior leadership roles (Stevenson et al, 2019; Miller, 2016; Bhopal, 2019). When considering the intersectionality of being a person of colour and a woman, the

likelihood of progression, leadership and senior roles further decrease (ECU, 2014). Therefore, a concerted effort to increase representation of different groups from racially minoritized backgrounds could begin to change the landscape for students in that representation in academic settings can be crucial for students of colour. For instance, lack of representation of themselves in faculty and leadership positions could act as a barrier to overcome as actors tend to look for others who look like them to feel confident in their ability to achieve similar or higher (Wei, 2007; Miller, 2016). Especially if aspiration is considered an important factor of how much students engage in university culture.

There is the paradox in that when students of colour are not awarded first class degrees at the same proportion as their white counterparts can mean they are less likely to get a position in a higher education institution. However, the UK Commission on Race and Ethnic Disparities (2020) suggests that Britain has moved on from its past of racial inequalities and that whilst some racism, discrimination and prejudice still exists, the last 30 years has shown enough advancement that it can no longer be considered a significant source of hardship for people of colour. This should not be considered the right stance towards inequalities and inequity and is problematic especially as racial inequalities are often quite subtle in higher education (Singh, 2011). Furthermore, when staff or students experience acts of microaggressions, it can lead to physical and mental stress, and cognitive dissonance (Franklin et al, 2006). It can also lead to lower self-belief and/or self-esteem (Ahmed, 2012; Arday & Mirza, 2019; Harris, 2017). Therefore, we must not stop addressing disparities even if there is improvement or change is slow.

Shand-Bapitiste (2021) argues that these claims of tentative racial harmony are promoted as an effective way to remove the discussion of racial inequality from the political landscape and in essence, shifts the blame onto the very people who face this discrimination. This is troubling because although there has been an increase of students of colour attending university overall, white students still obtain higher awards, especially from prestigious universities (HESA, 2022; CRED, 2021). Students entering lower tariff universities are less able to compete against those from higher tariff universities and are therefore less likely to secure employment in their chosen career and has a significant impact on post-graduate earnings (Russell Group, 2008). As ethnic minorities are disproportionately more likely to attend these universities, this may limit their employment choices and earnings in later life. For example, approximately 40% of Black African people and 39% of people from the Bangladeshi ethnic group are overqualified for their roles, (CRED, 2021).

When exploring differential outcomes of non-traditional students, it is important to note that there are model minorities and the 'high achieving non-traditional' student (Wong and Chiu,

2019), which can negatively impact the group in some ways; because they are seen as successful, it can mean that the group can be overlooked. HANT students include students from lower SES backgrounds, some students of colour, first generation students, mature students, and those with declared disabilities (ibid). Furthermore, model minority refers to successful subgroups within racially minoritized groups such British Chinese and British Indian students who achieve higher grades (Wong, 2015), where other racially minoritized groups are compared to them without considering that these groups are not homogenous and may be encountering a higher number or more complex structural barriers that they are asked to overcome without an increase in the level of support or preparation that comes with that. This aspect is important to consider because when ethnicities are grouped together, it loses nuance. For example, Asian - Indian students, Pakistani, and Bangladeshi students have differential graduate outcomes but because they are often grouped together, the issues of supporting these groups are overlooked or their statistics are exaggerated. Similarly, students from working class backgrounds, despite being from white backgrounds experience similar differential outcomes, but get swept into the white middle class statistic of being awarded higher awards, when this distinction must also be explored. The current research further explores these aspects to explore this and the effects of agency on these differential outcomes.

Socioeconomic classification and the award gap

The number of students entering higher education has varied in terms of social, cultural, and economic capital; age, and nationality (Morlaix & Suchaut, 2014). This has largely been due to the education policy agendas (discussed in chapter 1), where an increasing number of non-traditional students entering university has risen exponentially and that has included students from low-income families, and/or parents from a lower socioeconomic status (Clark, 2022). Despite this increase in the number of students from different backgrounds, there has been a divide in the differential outcomes and the final award classification obtained. There have been a significant number of studies who have researched the link between socioeconomic status and attainment. Studies that have established a weak to moderate link between those from a lower socioeconomic class or coming from lower-income families include Considine and Zappala. 2002; Reay et al. 2010; Richardson, 2015; Sackett et al., 2012; Gaddis. 2013; Westrick et al., 2015; Frostick et al. 2016.

As this research is exploring differential outcomes in higher education especially for widening participation groups, one of the main areas that require attention is what is meant by widening participation. This includes students from racially minoritized backgrounds as well as those

from lower socioeconomic or less affluent backgrounds. Socioeconomic status was historically measured by the position of the individual, their family or group based on economic, power and hierarchy (Mueller and Parcell, 1981), however a more recent and updated definition is the amount of economic, social, and cultural resources that are available to students (Cowan et al, 2012; De Clercq et al. 2017). Indicators from an induvial level has included education, occupation, and income (Cowan et al., 2012, Sackett et al., 2009, Van Ewijk & Sleegers, 2010). Household and neighbourhood resources relate to the financial and social aspects of family, but also their neighbourhood such as affluence, and the type of area it is and the amount of urbanisation (Hansen & Mastekaasa, 2006). Taking that into account, the current research aligns these with the concept of the socioeconomic classification based on the NS SEC measure (ONS, 2010); Acorn type (used to understand neighbourhood, lifestyle, behaviour, and attitudes constructed based on the classification by CACI, 2018) and Polar level (classifications based on the participation of young people in higher education in each location, HEFCE, 2018). These, in addition to parental income levels and whether the students' parents come from a higher education background themselves, all play a role in the structural factors associated with socioeconomic status. Furthermore, whilst complex, these factors investigated together represent the structures or involuntary habitus/situation of a person, rather than solely using the measure that the NS-SEC score provides. This is pertinent as the social, cultural, and socioeconomic background of a student is complex and lends itself to understanding the role of institutional habitus and habitus in relation to the award gap.

One of the goals of participation in HE usually is that it can lead to long-term financial security and financial benefits. However, although those who have graduated earn higher salaries than those who did not participate in higher education, there are also gaps within the graduated group based on their class inequalities/differences (Bukodi and Goldthorpe, 2011). Bourdieu (1984) argued that the students of middle-class or wealthier parents have higher cultural capital which includes knowledge, expected behaviour and cultural experiences which ensure that their children succeed in education, i.e., institutional habitus. However, it is not that students from lower socioeconomic class or lower income families are entering with a less ability necessarily but rather structural deficit in that the cultural practices of the institution favour the middle class whereas those from less affluent familiars need more time to settle into this novel environment, where educational hegemony often supports this dominance of one group over another by legitimatising certain norms and ideas and with the interplay between agency and structure (Wong & Chiu, 2019). This then increases their odds for success and the working-class students may remain one-step behind. Therefore, whilst there has been an improvement in this area on an individual class basis when comparing the different backgrounds, it then becomes clear that there is more to be done.

Differential outcomes are also the result of some students being more equipped to get involved in extracurricular activities which have shown to be extremely important for getting higher grades (Bathmaker et al, 2013). Again, this is also a matter of middleclass students being more prepared and willing to get involved whereas non-traditional students do not see the value of it. Studies exploring this include Tomlinson (2008), Redmond, (2010) and Stevenson & Clegg (2011), who found that students from higher socioeconomic classifications or middle-class backgrounds were aware that their academic studies were not the only thing of importance whilst at university, but to also increase their softer skills obtained via extracurricular activities (Tomlinson, 2008). In the case of mature or widening participation students, they are less likely to undertake extracurricular activities due to family responsibilities (Redmond, 2010). Furthermore, students from a working-class background view their arrival i.e., participation in HE and passing their degree as the end goal so do not see the value of extra curricula activities. Some value achieving higher grades but do not participate in non-academic events. This can be the deciding factor in how well students do academically, because by engaging with their peers, socially not just academically, it can create a social network, identify as a student/academic, and a sense of belonging to their campus and university (Tyson, et al, 2005; Comeaux & Jayakumar, 2007). This can be beneficial in a multitude of ways; by feeling connected to the university, an increase in confidence and therefore more likely to want to adapt their institutional habitus (Browne, 2006; Lehmann, 2014). Especially as for students from a working-class background or lower SEC, they must continuously change and adapt themselves to fit in, to do well academically and to progress during higher education (Reay et al, 2010).

To increase a sense of belonging, it may be that finding other students with the same or similar outlook is crucial, i.e., clubs, societies, and extracurricular activities which can increase valued capitals, and peer to peer relationships and student-tutor interactions (Tyson, et al, 2005; Comeaux & Jayakumar, 2007). Some students, whilst taking up ECA's, were not undertaking activities that can easily be translated to a CV i.e., social aspects and developing friendships etc. So, whilst not increasing economic, or cultural capital, it can lead to an increase in a sense of belonging which is of high importance too. Interestingly, only working-class students placed importance on this type of social capital whereas middle-class students focused on quantifiable activities that would help them to mobilise capital in the future (Baker, 2019). Therefore, do working-class students feel out of place being at university and therefore place more importance on creating a family feel and a safe space to give them a sense of belonging in this new situation as university can feel it is out of their comfort zone. Similarly, for students

of colour, it may be that by addressing how to create connectedness and a sense of community may be the way to reduce some of the aforementioned differential outcomes.

The effects of Agency

As there is scope for agential action such as self-regulatory behaviour that would be beneficial to a student, reflexivity should be considered as strategies, approaches that are for a specific context as everyone does not respond in the same way (Dyke et al, 2012, 844). This can be important to understand what informs agency and how policy is linked to this as often policy assumes students can make individual rational context free decisions (Brooks 2013, Hart, 2013). Individuals have priorities, if they have children or caring responsibilities, this may be more important than ECA or grades. Or financial constraints, where work is more important, so the goal is revaluated. Therefore, it is crucial to identify the context, and constraints that cannot be overcome (Baker, 2019).

In relation to self-regulatory behaviour, attendance of lectures and seminars is the foundation of a student engaging with their programme. It is considered that attendance is a crucial aspect in high academic attainment (Nordmann et al, 2019). If an important part of succeeding includes self-regulation and determination, then attending lectures and seminars is the first step to a physical action that demonstrates determination. By having a good level of attendance, it also demonstrates engagement with the course to some extent and a desire to add to their knowledge structure to achieve their goals. In the opposite vein, having pessimistic views or attitudes towards education will mean a decreased level of engagement and studies have shown that there is a link between engagement and student attainment. Students who demonstrate a high level of engagement in their education, with the material on their programme and utilises the resources and support available to them are more likely to have academic success (Lei et al, 2018; Klem and Connell, 2004; Trowler, 2010). Another aspect of engagement, self-regulation and motivation includes extracurricular activities (ECA).

Many students have begun to understand the importance of ECA on their success after graduation. For example, Tomlinson (2008) reports that students from higher SEC or more privileged backgrounds were aware that their academic studies were not the only thing of importance whilst at university, but that they should also increase their softer skills obtained via extracurricular activities. However, Redmond (2010) discusses the notion of mature or widening participation students were less likely to undertake extracurricular activities due to family responsibilities. Furthermore, students from less privileged backgrounds view their arrival i.e., participation in higher education and passing their degree as the end goal. Some

value achieving high grades but do not participate in non-academic events, which could provide a boost to their self-efficacy and achieve more beyond graduation.

As engagement relates to the students' self-perception, self-confidence academically, what they think they are capable of and how likely there are to imagine themselves in a successful career, their social position before university may have an impact on this. For instance, if White students are more likely to be from a higher SEC background and are more likely to attain higher grades at university (Richardson, 2015), this then indicates that students who are from racially minoritized backgrounds are less likely to perform as well as their counterparts. This is despite an increase in students of colour entering higher education (HESA; 2022). It is important to note however, that not all students of colour will be from a lower SEC or a less affluent background. Archer (2010) explains how there is agency, but it is not all about agency, or all about structure, but rather both have an important role, and whilst agency is important, it can be limited by structure in some cases. This further highlights the need to investigate possible links between student success and lower incomes, lower socio-economic classes, lower qualifications, as well as parents having higher education qualifications.

Although Archers (1995) morphogenetic cycle provides scope for change and explains that researchers must avoid conflating the role of either structure or agency, she does not acknowledge enough that whilst agency is crucial and possible, that some groups do experience disproportionately more barriers than others do (Hubble et al, 2021). For instance, whilst social interaction, reflexivity, and actively making decisions to change an individual's status is possible, in effect reducing social inequalities, it is just so much more difficult for some students in comparison to other students. This inequality is troubling and must be addressed beyond the ability of a student to make alternative choices. This inequality is problematic and must be addressed beyond a student can make different choices. It is not that they do not try hard enough or do not have the capabilities to do well but rather that some groups are not experiencing higher education in the same way as others (Wong et al, 2020). Whilst agency is possible, it is important not to lose sight of the inequalities that some individuals may face (Baker, 2019), and that some structural inequalities cannot be changed quickly such as financial constraints, travel costs, caring responsibilities etc. Especially when considering that for some, there will be an intersection of structural constraints, such as coming from lower income families, non-traditional educational backgrounds, as well as facing institutional racism (Wong et al, 2020). Having said that, Archer's (1995, 2010) concept of morphogenesis and the morphogenetic cycle is still a valid resource and worth using to investigate the current research because individual agency and transformation are possible, whilst considering the effects of structural inequalities. Overall, it is possible that individual action (with the support

of institutions) can lead to both improved outcomes for the student as well as institutions making structural changes to better support students.

Student institutional habitus, and structural elaboration

Institutional habitus refers to an individual's embodied behaviour that is impacted by their cultural and social class which is then mediated through an organisation (Reay et al, 2001; Reay, 2004). It largely helps to determine how a student may react to a new situation based on their individual experiences (Thomas, 2002). Furthermore, institutional habitus is more than just the culture of the higher education institution, but also its priorities that are embedded in its norms, policy, and practise (Mcdonugh, 1997; Reay 1998, Reay et al, 2001, Thomas 2002; Kitchin et al, 2020; Cain et al, 2022). What this means is that the institution's own position in social hierarchy, their position on various social issues and phenomena will have an impact on student opportunities, restrictions, and generally the student experience both academically and extra-curricular. However, it is not a foregone conclusion that all students will have the same experience (byrd, 2019). A students' individual circumstances and own habitus will also have an impact. For instance, different HEI's have different institutional habitus (Reay, et al 2001), and students are aware of this. For example, 'elite' universities may seem unreachable for non-traditional students or unwelcoming or unfamiliar to them. This can make non-traditional students feel that they do not possess the correct type of habitus and therefore they do not belong (Thomas, 2002). This is especially crucial for institutions to address as an important aspect of HEI is student relationships with tutors, tutor attitudes, which can have an impact on how valued students feel and further impact on how likely students are to ask for and received support when needed (ibid).

byrd (2019) states that a university's social and cultural practise (institutional habitus) puts the dominant group at an advantage, and disadvantages those from non-traditional backgrounds. This can be detrimental for non-traditional students as it can leave them feeling alienated and more likely to disengage (Thomas, 2002). Therefore, institutions that embrace diversity and inclusivity can create a much more inviting, welcoming space for non-traditional students and a habitus that does not seem too far out of reach. This is not to say that students do not have any agency, whilst individuals have space for agency and the ability to make their own decisions, it must be noted however, that institutions must take the responsibility to diversify their policy and practise in order to enable students to make the best decisions for themselves and thrive within their higher education experience. Individual agency within their habitus allows students to make their own decisions, based on the available options and opportunities leading to self-regulation and other self-regulatory behaviour. For example, as Bourdieu

(1987) states, when encountering an unfamiliar field, it can lead to transformation. Therefore, when investigating the factors that are involved in the differential outcomes, it is key to explore self-regulatory behaviours concerning this (Kirkert et al. 2019). Self-regulatory factors include the disposition where systems of propensity, tendency, and inclination work together as the mechanism of an individual's behaviour (Bourdieu and Wacquant, 1992), i.e., a generator of behaviour, such as attendance, participation in university-based workshops, seminars, and extracurricular activities.   As the role of education grew in addressing social equity and reducing the gap between the most privileged and the most social disadvantaged, studies that have investigated the link between self-regulatory behaviour and classification awarded became an important part of investigating the route to reducing social inequalities and the factors that compound classification awarded. This has included studies by Pintrich (2004), Schunk and Zimmerman (2003) Coutinho and Neuman (2008), DiBenedetto and Bembenutty (2011), Diseth (2011), Donche et al. (2013), Schunk and Benedetto (2016), Kirket et al (2019), which have all found that self-regulatory behaviour, has a positive impact on award obtained.

Ultimately, for students to achieve high levels of final award classification, students must engage in self-regulated learning. For not only educational purposes but also more generally in life and future careers (Corte, 2016). Self-Regulatory behaviour enables students to evaluate their experiences, which enhances the self-belief of their ability. By engaging in activities that increase confidence, self-worth, and self-efficacy or resilience, it allows the student to plan, maintain and regulate their learning (Schunk 1995; Zimmerman, 2003; Duchatelet and Donche 2019). Although undergraduate students are adults and responsible for their progress, managing and monitoring their processes of knowledge building as well as acquiring relevant skills and ultimately their decision-making, educators can play a big role in students managing their study time, setting goals, having a higher standard of satisfaction, and improving student outcomes with appropriate guidance.

Whilst some aspects of differential outcomes will stem from structural barriers, there are some aspects that students can take agency on; students can amplify the benefits of proactive learning and by engaging in higher levels of engagement. This can include goal setting from the outset with smaller short-term course related goals can increase self-regulation/monitoring (Duchatelet & Donche, 2019; Zimmerman, 2000; Zimmerman et al, 1992; Schunk & Mullen, 2013). Furthermore, bigger career related goals could help to keep the student motivated and see the bigger picture, especially as by having higher goals (beyond completing the degree), it can produce higher levels of performance and improve decision making and time management (Corte, 2016). The way institutions and tutors can help with this aspect is to provide support and encourage in the classroom, not just for academic learning but also for

individual goals with the addition of access to a personal tutor and/or mentor (Schunk & Mullen, 2013).

Students can sometimes be reluctant to contribute to a class discussion due to a fear of not having the correct answer or appearing as if they do not have the same amount of knowledge as other students (Hawe and Dixon, 2017). They go on to explain this as students may choose to avoid situations where they have a fear of failure especially in the case of widening participation or non-traditional students, where they fear they could be humiliated in front of their peers. This reluctance to take risks in this way can be linked to self-worth demonstrating how crucial it is to build up student confidence early on especially when students have shown signs of not engaging because "disengagement over time can have an impact on ones will to learn" (Hawe & Dixon, 2017, 1188; Covington, 1984).

Archer (2010) states that whilst each student may have specific barriers to overcome based on their background, there is scope for transformation. By entering university, the student will most likely have begun to engage in reflexivity already and as Archer (2010) further states that this turning point is a key element to potential change. For example, volunteering, participation in extracurricular activities, both as a member as well as in leadership roles, such as being course representatives, as well as admin for societies and clubs. Recognising that institutional habitus includes more than classroom learning but also planning for post graduate success. This can also work to increase confidence, self-worth, self-efficacy, and the propensity to work towards taking up space that is rightly deserved (Duchatelet & Donche, 2019). Despite these actions leading to individual benefits, it important to consider that whilst it is possible for social reconditioning and whilst there is individual agency, it may still be more difficult for students of colour to have to overcome more barriers (Wong et al, 2020; Reay, 2021). Not all students are from poor backgrounds, and so may not have financial strain as a barrier but may face other discriminations or disadvantages.

Being aware of these disparities can aid some students in mobilising their institutional habitus or making the most of the opportunities available to them; this could be any kind of extracurricular activities. One example of this could be actively engaging with clubs and societies supported by the student union. Some students are more conscious than others of institutional habitus. Some do it without thinking as they have internalised this behaviour from family, especially if they are from a background where social inequalities are discussed regularly or if they come from a background of affluence and have sufficient cultural capital. Bathmaker et al (2013) states that students were aware that simply completing the degree was not enough anymore. For instance, working class students generally wished to have the opportunity to do extracurricular activities but had other priorities. However, some 'aspirational'

working class families are aware of this and supported their child to take on extracurricular activities therefore increasing the student's institutional habitus.

Often students can feel unsure of what their undergraduate and post graduate experiences will mean in terms of their career and this can hinder their participation in extracurricular activities, and can sometimes feel fragmentation, and lack of connection to their programme and the bigger picture. Therefore, by demonstrating links to industry and real-world experience such as placements, it can reduce this feeling (Lairio et al, 2013). Whilst many institutions offer this already, a continued emphasis may help to encourage more students to consider these options and/or offer financial incentives as sometimes students may be interested but have financial obligations that cannot be cancelled for unpaid work.

Relationships with teaching and support staff, peers, and parents/family all play an important role (UniversitiesUK & NUS, 2019). Whilst university has no control over family life, student-teacher relationships could make a difference in creating a sense of belonging in addition to encouraging relationships with peers perhaps by group work or attending peer organised events. Middle class students may be better equipped to speak to the tutor or take up offers of support as they are often aware of what is expected of them at university, and the support available is not something to be ashamed of. Furthermore, even when tutors are from a working-class background too, non-traditional students can often still feel reluctant to ask for help because they do not want to put themselves in a (perceived) negative light. With students of colour, they may feel that they do not have anyone to speak to as there are such a small proportion of black and brown academics in higher education.

Undergraduate students can use their social capital and networks to further their career development, employability prospects and to build their professional identity. Their social networks usually generate from the resources available to them at university, both academically and via the student union (Draycott et al. 2011; Fearon et al, 2018). This is where familial habitus could make the difference as Jaeger (2010) reports those families from higher socioeconomic status and a higher level of resources that may have children who have weaker academic abilities utilise extracurricular activities to boost their academic performance. There is a positive effect of encouraging young people to have hobbies and actively pursue them; this is particularly more so for students from a low to medium SEC background rather than those from higher SEC backgrounds. Unfortunately, for students from less privileged backgrounds or lower SEC, they have to continuously change and adapt themselves to fit in, to do well academically and to progress during higher education (Bathmaker et al, 2013).

Professional identity can be an important factor in increasing self-efficacy, as it can help the student to begin the change of their perception of their place in society and their industry,

which also increases their efficacy in general. Therefore, work-based learning i.e., placements and having access to real organisations in the industry could play a vital role in a students' perception of their professional abilities. Perception of how relevant they believe their programme to be in preparation for their entry into an industry can also influence the level of their engagement on their programme (Antonio and Tuffley; 2015). Therefore, collaborating with people already in the industry means the student is aspiring to work which can be helpful in terms of motivation to succeed, engagement with the course and improving the skills needed to build their professional identity Reid et al (2008).

Having one type of theoretical resource such as higher socioeconomic classification will usually mean there is a higher or lower likelihood of having other types of resources, whether they are economic, social, or cognitive (Jaeger, 2010, Britton et al. 2016). Their combined influence affects students' perception and expectations. Due to this, the university learning experience should include building confidence and inspiring to think bigger and to apply academic learning beyond grades. For instance, to change a students' familial habitus and self-belief, universities must play a role in helping the student to realise their potential and help them to develop their professional identity, career aspirations and the drive to want to change their predicted trajectory. Therefore, the current research is investigating which factors impact differential outcomes and what more institutions can do to reduce them.

Some key aspects of change include confidence, high self-esteem, and motivation (Pintrich, 2004). Being at university often means that students can develop or improve their self-esteem by engaging in the classroom or discussions, or via clubs and societies. However, students with doubt or lower levels of self-esteem may avoid challenging situations, social which could, in turn, have an impact on their academic attainment and beyond. Rather than risk 'failing', they may aim lower as this is safer or give up at the first hurdle. This is why it can be even more beneficial for a socially disadvantaged student to have a specific goal in mind beyond the academic grade. For instance, when students have a clear goal in mind, it can increase their focus, reflexivity, and self-regulatory behaviour such as attendance, and undertaking extracurricular activities which then could give them a higher likelihood of higher attainment and success after graduation. Having belief in the end goal gives the student a sense of purpose, (Schunk & Parajes, 2002; Schunk & Mullen, 2013) and this can have a large impact on how they choose to spend their time at university both academically and socially with their peers. This further links to self-regulation, self-confidence, and an increased sense of belonging, which will be explored in the current research.

Overall, universities could be a transformative experience; a place to advance academic and technical skills and to increase motivation and reflexivity, especially for those from socially

disadvantaged backgrounds. Although certain aspects of a student's life are out of the control of institutions, they can play a role in providing drivers to increase self-regulation and potential future outcomes. They could also consider the remnants of structural barriers that a student with lower socioeconomic class may have to overcome prior to university, as well as those from racially minoritized backgrounds experiencing structural racism inside and outside the university, and as such, actively work to increase their chances of improving their academic achievement, and success beyond graduation. This could close the gap between those who are awarded higher final awards and those who are not.

Chapter 4: Methodology

This chapter focuses on the rationale for the study, the methodology used to explore the issue of the award gap in higher education, and the approach to the research design as this is the foundation of the study overall. It begins with the justification of the study; research aims and an overview of the methodology.

Rationale of the study

This research uses a quantitative methodology to explore the issue of the award gap in higher education, specifically the gap between white students and students of colour (SOC - students from a Black, Asian, or other ethnic minority background) and/or disparities between students from lower income backgrounds and more affluent backgrounds. The justification of this study stems from the researcher's personal background of being a non-traditional student or HANT ('high achieving non-traditional' student, Wong, and Chiu, 2019) and trying to understand the contributing factors in the differences in experiences and attainment between white and students of colour in higher education. A point of contention is how race is measured in the first instance (Letherby, 2019), especially as there is only one human race, and people from different localities, heritage or 'ethnicity' do not have inherent differences in their genetic makeup (Frings et al, 2019) that would account for the award gap but rather other factors such as cultural identity and context (ibid.). Therefore, the central aims of this study are to investigate and explore different socio-economic and socio-demographic factors such as being a first-generation student, household affluence, ethnic background and so forth, to examine their effects on undergraduate award classifications.

Research Aims

- To explore how much of an effect socio-demographic, socio-cultural and in-university factors have on award classification
- To explore what role the higher education sector has in reducing this award gap

Research Questions
- What factors affect students final award classification in higher education?
- Why is there an award gap despite widening participation?
- How much of an effect do self-regulatory factors have on final award obtained?
- To what extent do structures influence student attainment?

To explore these research aims and research questions, a quantitative study was conducted using central administrative data from Manchester Metropolitan University. University administrative data was chosen as the most appropriate method of data collection. The university collects information from students at enrolment as part of a standard process including previous qualifications, socioeconomic status, and sociodemographic factors such as ethnicity, age, sex household income. It also continues to collect data throughout the students' studies including attendance, engagement in extracurricular activities, as well as their final award. Whilst there are challenges using secondary data analysis, it is also the most appropriate and resourceful way to analyse student outcomes; the data is already collected and, with proper ethics in place, relatively easy to access (Scott Jones & Goldring, 2021).

Quantitative Methodology

This research takes a quantitative methodological approach. One of the key components of any social science research is being able to answer important questions about society (Godwin et al. 2021). Thus, as a fundamental aspect of quantitative methodology is that it is generalisable to the wider population, this type of methodology becomes invaluable. This can be in the form of quantifiable data, whether its primary or secondary data. Therefore, this research used secondary data in the form of administrative data collected by a large modern university and used hypothesis testing to examine the relationship between students' final award classification and specific predictor variables. When creating hypotheses via deductive reasoning, it enables the researcher to test assumptions and general principles logically by gathering and analysing data (Wilson, 2010). This then allows the researcher to either support or refute the theory. For instance, when using the hypothesis testing method (Fisher, 1925), it starts with the null hypothesis, that is there is no relationship i.e., the absence of an effect. So, if the null hypothesis is true then by computing the probability of observing a mean difference with repeated experiments, where the p-value is ≥.8 then there is no effect/relationship, whereas a small p-value such as .0012 implies the opposite. Therefore p-values help to quantify how well the null hypothesis accounts for the data. Therefore, the null hypothesis states that the variables being tested have no relationship or bearing on each other and the alternative hypothesis states a prediction that there is (introduced by Neyman-Pearson, 1928). For a null hypothesis to be rejected, the statistical methods used will have demonstrated that there was some statistical significance between the variables based on the p-value threshold of <0.05. p-values are used as a tool to measure the probability of the observed relationship – where the lower the p-value, the greater the likelihood of statistical significance (Di Leo & Sardanelli, 2020). It is used as the main determinant of whether to reject or accept the null hypothesis. i.e., whether the data shows a likelihood of having statistical

significance or not. This means that when examining the effects of socio-economic status on final award classification - if the p-value is less than 0.05, then it would indicate that there is a relationship between levels of socio-economic status and level of final award attained.

However, whilst being able to generalise to a wider population is extremely valuable without question, especially in the case of impact research, there is the issue of over focussing on p-values, hypothesis testing and its implied objectiveness. Over focusing on hypothesis testing can be problematic as significant often trumps effect size, and sample size can seriously affect p values which are easy to manipulate (Harrison et al, 2020). This is especially in the social sciences as data analysis is often conducted with too much emphasis on the hypothesis and numerical summary of the data. John Tukey (1980), who introduced the importance of Exploratory Data Analysis (EDA), argued that there is often too little emphasis on using the data to develop the theory and too much emphasis on confirmatory research. There may be information that could be easily overlooked when focussing too much on hypothesis testing. Therefore, exploratory data analysis, especially in the earlier stages of analysis, is a fundamental step that must not be disregarded. It is important to note that EDA involves more than the technical or mechanical aspect of exploring the data, but rather that it is also about having an open mind and being sceptical of the measure when assessing the patterns in the data or gaining an understanding of the measures to develop, test and refine the theory (Hartwig & Dearing, 2011).

Data analysis is a breakdown of data, but it has come to mean statistical factors such as hypothesis testing. In this case, modelling is often considered to be the most important part of the study (Hartwig & Dearing, 2011). However, EDA and visual representation of the data is just as valuable and when done correctly, is exploring data with nothing in mind and letting the data lead the direction of the research, thus informing the researchers' modelling decisions (Tukey, 1980). This is reiterated by Wongsuphsasawat et al (2019) that there are 5 aspects to EDA: *Acquisition, Wrangling, Exploratory Data Analysis, Modelling and Reporting;* each of these elements work together to maximise what is learnt from the data. Acquisition refers to locating and acquiring the data and, in the case of this research, it was via the university's administrative systems and access was gained after applying for ethical approval. This then meant that the data needed to be 'wrangled' i.e., handling the different files, and transforming large amounts of data into one data set to be more suitable for analysis. This stage is quite extensive and often the most time consuming, especially when it is administrative data not created especially for the research, but this aspect allows for data familiarisation (Connelly et al, 2016). The next stage is exploratory data analysis, where data is explored via the values, data points, statistics, and visualisations to help profile the data. This stage is integral to the research process as it informs the next stage – modelling. This step includes building and

evaluating statistical models, in addition to testing hypotheses. The final stage is reporting and disseminating the results. The current research utilised an exploratory data analysis approach using the above stages as described by Wongsuphawat et al (2019), to explore and develop the theory. By using exploratory data analysis, it allowed for the researcher to be open to new discoveries, patterns, and insights.

Frequentist vs Bayesian

The frequentist approach is to establish the truth in a particular experiment and examine the probabilities of the observed data, it also makes predictions on the underlying truths of the experiment using only the data from the current experiment (Birkett, 2020). Whereas the Bayesian approach is a bottom-up approach. It relies on the prior: knowledge of past experiments is encoded into a statistical device and then combined with the current experiment to make a conclusion. However, it is a mistake to assume that the frequentist approach is too rigorous, and the Bayesian approach is very subjective. Both approaches have shared elements. To explore these opposing approaches, it is first necessary to understand both. The frequentist approach is the most widely used in the social sciences (Pek & Zandt, 2020) and can be identified with the use of the Fisher and Neyman-Pearson approach to evaluating hypotheses. They improved on the Fisher null hypothesis by introducing an alternative hypothesis (Neyman-Pearson, 1928). The main difference between the two can be found in how they approach hypothesis testing and whether they tend to have to type 1 or type 2 errors.

Type 1 and type 2 errors are where the difference can really be seen. Type 1 errors are false positives; this can happen when the null hypothesis is rejected incorrectly by reporting that it is statistically significant when the null hypothesis is true. The likelihood of this happening can be reduced by lowering the *p*-value to <.001 instead of <0.05, however this could potentially increase the chances of a type 2 error. Type 2 errors are false negatives. This can happen we fail to reject the null hypothesis i.e. reject the alternative hypothesis, by reporting that the data is not statistically significant when it is. The risk of this type of error can be reduced by having more statistical power, such as having a larger sample size.

So, whilst both approaches utilise testing of hypotheses, the difference lies in how they approach and evaluate the data to reach their conclusions. The Bayesian method reduces risk of type 1 errors by using prior knowledge, however, this is not always the case if sample size is small, and the priors are uninformative. Benefits of the frequentist approach, however, is

that there is a lower risk of type 2 errors, and type 1 errors can be reduced by using a smaller margin of error, i.e., $p< 0.01$ rather than <0.05, faster in times of time efficiency (Birkett, 2020). Ultimately, when it comes down to it, when the outcomes are similar, but there is a reduced likelihood of type 1 and type 2 errors and is faster, it makes sense to use frequentist methods. Especially as the core element of the Bayesian method is to consider prior experiments, to some extent this is done in frequentist approaches by literature review search of exiting studies on the research area to help inform the selection of variables for the current model. This also explains the approach of the current research, although it acknowledges elements of subjectivity, it is still absolutely utilising a frequentist approach, as it maintains the rigorous standards of frequentist statistical testing methods as well as tempering the NHST approach by applying EDA, which makes the effect size, and sample size as important as the p values.

The Approach: Critical Realism

To truly understand our ontological and epistemological stance prior to conducting any research lies the fundamental question of what we believe reality is, how its created and how we understand it. Reality is socially constructed which is under constant internal influence (Ladson-Billings & Tate, 1995). In fact, reality and knowledge are both socially constructed which are influenced by power relations in society (Berger & Luckman, 1966). The hermeneutical aspect such as cultural traditions, language, and historical context provides a way to both understand the world as well provide a way to make oneself understood (McEvoy & Richards, 2006). Therefore, the methodological approach taken in this research is from a critical realism position because the data, the numbers and figures are more than just statistics or percentages; the analysis of these numbers provide a much-needed narrative whilst also providing evidence (Bhaskar, 1989).

Critical realism states that social science is more than an empirical discipline. Rather, it is a meta-theoretical position: a reflective philosophical position that involves providing philosophical explanations of science and social sciences, which, in turn, can provide information for our empirical research (Archer et al 2016). Critical realists also believe that over time, social science can refine and improve our understanding of the real world and make relatively reasonable claims about reality, while remaining historical, contingent, and changing. This does not mean that knowledge is meaningless, but it only means that our representation of the world is always historical, and dependent on perspective. This approach adopts a vigorous process of creating hypotheses, research design, robust analysis methods and in-depth analysis of the results, whilst also allowing the researcher a degree of

positionality to go beyond the numerical aspects of the data and interpret the findings in relation to social phenomena (Heeks & Wall, 2017).

It is not enough to simply look at the data, analyse the students' grades and mention that a certain group got a 1st class award or second upper and so forth, but to look beyond basic comparisons. To enact changes to improve student grades and more specifically, reduce the award gap; assessing and comparing different groups and their performance at university is of course vital, but the analysis must go beyond simply reporting these differentials and actively challenge them. Researchers must also consider what factors might influence certain groups to do better or worse than others (Baker, 2019; Bathmaker et al, 2013). Especially because a person's performance in the university and the final award they receive will depend on their environment, their social world in terms of structures and systems, as well as the larger events of their location in time both prior to and during university. The current research does this by examining factors that may influence a student's final award classification such as their family and household, their neighbourhood, affluence, socioeconomic status as well as their previous academic record and their activity at university (attendance and participation in extracurricular activities). The methods utilised in the current research include exploratory data analysis as well as creating statistical models that build on each other to develop an in-depth investigation and rich narrative that addresses the award gap.

There are objective realities, but knowledge is a social product, which is not independent of those who produce it, and the narrative will have elements of the researcher at all stages of the study, from the design, the approach, the data collection/acquiring and analysis. A fundamental flaw is the claim that knowledge is completely objective and that only scientific knowledge collected/analysed in this way is valid and accurate (Crotty, 2003). 'There still exist a number of issues which cannot be ignored when trying to offer claims to objective knowledge of the phenomena with which the social sciences concern themselves.' (Houghton, 2011, 3). Furthermore, social structures are not independent entities that are simply to be observed. They are both shaped by and shape the agent; agents reflect on the structures, the institutions they are a part of and alter their behaviours accordingly, and in turn, this then shapes the structures depending on the time and location (Marsh and Stoker, 2002). Therefore, this research will be using a critical realist approach, which is the most appropriate approach for this research.

This is a supplement to the students' pre-university experiences such as their family life, whether they are commuting or living on campus, who may or may not have the opportunity to expand their world beyond the responsibilities of daily life; we are in part, the amalgamation of our time, the things we have been witness to, experienced in our lifetime as well as the

interactions between social structures, and human agency (McEvoy & Richards, 2006, 70). This further links with the research design, even before a researcher is at the analysis stage. Although the epistemology, the theory of the subject knowledge would indicate a specific understanding of the findings, a person's individual life experiences will influence what questions are asked, how they are collected, how they analyse it. Elements of a person's worldview will always make an impact on how they understand or view social phenomena, whatever type of methodology they are using especially as everything is subjective no matter how objective a person tries to be (Holmes 2020). This unconscious bias does not necessarily mean that the research is not ethical but rather acknowledgment of this subjectivity is key (Galdas, 2017).

The approach of the current research fits in with critical realism especially as reality is socially constructed, and knowledge is connected to power relations (Berger & Luckman, 1966). Historical context provides a way to understand the world, and in this case, the students' experiences prior to enrolling university will influence their experiences at university too. This can be in the form of confidence, institutional habitus, and being aware that university has become about more than earning a degree – the importance of learning that takes place outside of the classroom (Bathmaker et al, 2013). Therefore, to understand the award gap, the current research will consider many other aspects of socioeconomic and sociodemographic factors when interpreting the data. For instance, to understand individual parts of a text is based on the understanding of the whole and vice versa (Grondin, 1994). For critical realists, the ultimate goal of research is to develop deeper levels of understanding and questioning why events have happened the way they did. (Mcevoy & Richards, 2006, 69; Olsen & Morgan, 2004, 25).

The current research does this by using a quantitative approach as it has the advantage of being able to develop reliable descriptive statistics, provide accurate comparisons as well as test theories with more complexity. Furthermore, by using a quantitative critical realist approach, it can uncover patterns and relationships that would otherwise be hidden during the exploratory phase of the research (Mingers, 2004). They can also be used to evaluate theories which is extremely useful when addressing the award gap. For instance, Bhaskar (1978) stated that progress is possible due to the ontology of reality where objects and subjects are not examined as separate entities but rather as a developing whole with contexture, and endurance of structures and processes provides a point of reference against which individuals can stand out, theories can be tested, and hypotheses examined. The current research does this by looking at multiple categories of potential influential factors by developing each statistical model based on a theoretical underpinning of individual sociodemographic, family and neighbourhood characteristics, and activity at university.

Reflexive Quantitative Methodology: an oxymoron?

Reflexivity is the ability to recognise the researcher's role in research and understand how it affects the research process (Finlay, 2008). It may sound like an oxymoron when it comes to quantitative research but that is far from the truth. It can be a useful tool in a researcher's arsenal. Whilst a few empirical studies have utilised an element of reflective practice in their research, it was limited and not always based in sociology research (some examples include Finlay, 2008; Ryan & Golden, 2006; Walker et al, 2013; Lakew, 2017 & Usher, 2021). The main consensus of these studies was that reflexive analysis can be a valuable tool in research. These studies considered their position in relation to primary data collection and/or the development of their research skills, reflected on the knowledge their study produced and examined the influence of their identity on the research. The current research goes a step further and acknowledges that quantitative data is more than just numbers or statistics to be analysed, the participants are real people with individual lives and individual outcomes that go beyond the outcomes of the study. This is especially important to the researcher as the current research is emancipatory in nature, giving voice to students from non-traditional backgrounds and shining a light on the structures that effect student outcomes, by using generalisable quantitative data.

Using quantitative data in this way is crucial to give voice to students of colour especially as quantitative data allows for larger samples and generalisability (Rahman, 2017). However, the limitations to reflexivity must also be considered, which includes the amount of time it takes to undertake meaningful reflexive analysis, it is often seen as being too emotive especially in quantitative fields and the question of subjectivity as being problematic remains unchallenged and therefore leaving the research open to criticism (Finlay, 2008). Furthermore, the emotional cost to the researcher when researching sensitive topics may be high (Ryan & Golden, 2006), especially where the identity of the researcher aligns with the group of interest in the study. EDA is in of itself a step towards reflection, albeit one based on what the data is telling us. Embracing EDA, acknowledging the limits of NHST and perhaps appreciating the Bayesian position, may all inform and allow space for a reflexive quantitative methodology.

Positionality, intersectionality, and reflexivity

Positionality refers to the stance or position of the researcher in relation to research (Holmes, 2020), the social and political context in which a person creates their identity. This can include relatively fixed identifiers such as their socio-demographic characteristics - ethnicity, gender, sexual orientation, religion, etc., but it can also include identifiers that are more fluid. This

includes their political views, personal life history, etc (Chiseri-Strater, 1996). Positionality is not usually considered an important aspect of quantitative research and is not widely used. Those that oppose it argue that it could make the research prejudiced and therefore questions validity (Jafar, 2018). However, positionality does not undermine the truth of the research, especially in quantitative analysis, because it is not possible to report results that cannot be seen in the findings as the truth is fixed in that sense (ibid.). The statistical models have clear results, and by using positionality it defines the boundaries in which the research was produced. It also allows voices of the marginalised in the final report (Noel, 2016). Therefore, it would be a mistake to ignore positionality when considering reflectivity involves being reflective. Although traditionally used for qualitative purposes, the benefits of recognizing positionality in all studies include providing a transparent account of their thought process whilst adding a richer context to the design process and analysis (Holmes, 2020), therefore, to dismiss it amounts to negligence. When researchers simply look at the data without looking at the narrative or the location of the researcher as self-reflection and being reflexive is crucial to understand their place in the research (Holmes, 2020; Cohen et al, 2011). For example, how the data is explored, interpreted, and the tone of the writing will depend on the researcher (Rowe, 2014).

In the current research, when observing and analysing the profile of students who have done better or less well than their counterparts, there were elements of the researcher too, being from a less socially advantaged background, being a Person of Colour (POC) and part of the group labelled as 'high achieving non-traditional' student (HANT). A person's internal narrative, i.e., positionality will have an impact on the approach, the analysis and interpretation of the findings (Rowe, 2014). For example, the researcher and their life experiences or something that is important to them, whether directly or indirectly determines the research topic itself. A person will not devote time and resources to researching a topic that is of no value to them and therefore they cannot be completely objective, because why would they research it then in the first instance? Which is to say that subjectivity must be acknowledged whilst remaining objective as both have limits. Therefore, the research design process included research on why differential outcomes were so prominent, what factors could be influencing it and the best/most appropriate way to assess this and enact change to reduce this award gap. Although the data for the current research was existing administrative data, and therefore not primary data, the selection of the variables used from the vast number of possibilities were influenced by existing literature which allied with the researcher's positionality.

Positionality explains how identities influence and introduce bias to understanding the world. For instance, in the current research when the researcher assesses the findings, and discusses potential causes, problematic incidents that add to the award gap, and how to actively reduce this gap, the researcher will draw upon her own lived experiences, of her family and friends and the location in time of that cohort. To separate the research from the researcher is important especially ensure a balance of objectivity and subjectivity, at least in the context of society, social injustice, and social science in general. It is also imperative to note that a person's ontological assumptions will influence their understanding of the world around them. Fundamental truths are still subjective, dependent on the individual's experience and understanding of their reality (Holmes, 2020). We must accept that our knowledge of the world is always relative to who we are and what we are doing to acquire that understanding and is relative to the specific context, society, individual or culture, - 'epistemic relativism' (Seidal, 2021). Critical realism also states that this understanding of individual ontology is an essential part of research as well as understanding the structures in society that play a part in generating event (Archer et al, 2016).

As people tend to have more than one identity (gender, religion, ethnicity etc.) as well as identities in general being fluid and ever changing affected by historical social changes and personal growth (Kroger, 2015), intersectionality is key when it comes to effective research. When exploring social inequity, we must consider the different but often overlapping oppression happening at the same time. For instance, different identities have different degrees of social power based on systems of inequity such as racism, sexism, and class prejudice as they intersect to create complex relations of power and (dis)advantage (Cho, Crenshaw, & McCall, 2013; Crenshaw, 1991). For example, when we consider ethnicity, white people have higher levels of social advantage over people of colour and men have higher levels of social advantage over women or non-binary people, this can sometimes include the added differences in socioeconomic status too. This does not mean to say that those in higher 'privileged' positions do not experience adversity or have everything handed to them without hard work but rather they might experience subtle bias in their favour. Some examples include white people being considered for a promotion over their brown counterparts, despite having the same credentials. Alternatively, women feeling vulnerable walking through a car park in the dark whereas men may say they see no issues. Therefore, it is important to consider the different identities that a person has and whether these multiple layers provide different narratives than assumed.

To understand intersectionality and the multifaceted oppressive discrimination such as sexism, racism, and xenophobia and the influence they have on social research, we must first

explore our own multiple identities. For instance, being a brown, visibly Muslim woman instantly highlights three identities that are at a social disadvantage. They cannot be explored exclusively on their own; they will have a knock-on effect. For example, whilst most women may face discrimination for being women, black or brown women will experience those discriminations as well as prejudice and racism for being a person of colour. Whereas a white woman will be in a position of privilege due to her whiteness (Carr, 2016). Adding to that, the very visible religious identity of being a Muslim woman, will in turn add islamophobia disadvantage on top of the sexism and racism. Therefore, positionality and by extension, intersectionality, is crucial when exploring and discussing critical theories (Crenshaw, 1989). The current research considers these elements essential, for the researcher, and the subjects highlighted in the research.

If positionality is what we know and believe, then reflexivity is what we do with this knowledge. Researcher reflexivity includes how our thinking has evolved, how existing understandings are constantly being revised in the light of new knowledge, and how this affects our research (Haynes, 2012). However, reflexivity in quantitative research is frequently overlooked as there's the perception that it reduces neutrality. However, Gelman & Hennig (2015, 2017) argue that bias can be reduced by providing the necessary context for the researcher's analysis and design decisions. Sincere acknowledgement of the researcher`s position, goals, experiences, and subjective perspectives is a distinctively positive feature alongside other traditional virtues such as transparency. Furthermore, it is an integral part of any research as it 'provides transparent information about the positionality and personal values of the researcher that could affect data collection and analysis; this research process is deemed to be best practice.' – Walker et al (2013; 38). This is reiterated by Usher (2021) who states that reflexivity in quantitative research can ensure transparency, accountability, and a critical perspective to the researcher's role in relation to the research. This is especially true as reflexivity is *connected* to positionality and overlaps to a certain extent, even in quantitative research. For instance, to enact social justice, when conducting research, it must not be done blindly simply making comparisons but actively reflect, assess, and act. Furthermore, it 'can be an effective, ongoing means of critically reviewing work, process and researcher development'. – Walker et al (2013; 38).

Reflection, then, refers to the way researchers acknowledge their own identities, their values, and their beliefs, and how they might influence their research. (Usher, 2021). This can be extremely useful when questioning theories and methods being used in the study (May & Perry, 2017). When a researcher reflects on their decisions, actions, opinions, and assumptions, it allows for a much richer and meaningful research, even when it is quantitative

in nature. In fact, all researchers whether they are doing qualitative or quantitative research, use some elements of an interpretive process during the analysis stage (Greiffenhagen, Mair and Sharrock, 2011). Malterud (2001, 484) suggests that reflexivity starts by identifying preconceptions brought into the project by the researcher, representing previous personal and professional experiences, pre-study beliefs about how things are and what is to be investigated, motivation and qualifications for exploration of the field, and perspectives and theoretical foundations related to education and interests. Some consider it to be self-centred, self-indulgent, and even narcissistic, however this is not true – it can be a valuable method that places the self within a social context (Winkler, 2018, Walker, 2013; Usher, 2021). Whilst this method is predominantly used in qualitative research, it is still beneficial in quantitative research.

Ongoing reflexivity is where the practice of reflection occurs at periodic intervals; as a result, each person is continuously evolving, hence influencing wider society, and creating generational transitions. Whilst it is beneficial to consider reflective process and practise from the beginning, true reflection happens when there is a little bit of distance from the situation, and must be retrospective (Ekeburgh, 2007). Therefore, a part of the process of this research, was a period of ongoing reflections but especially at the write up stage when all the research began coming together into one cohesive narrative.

Traditionally when it comes to practice, academics/researchers often use specific models such as the Gibbs reflective cycle (1988) and Kolb's reflective cycle (1984). Whilst these are valuable and provide structure to the reflective process, they are sometimes too rigid and break up the flow of the reflective writing (Middleton, 2017). Therefore, the current research will utilise the ERA cycle (See Figure 3. Jasper, 2013, 2), which is a simplified version of these

FIGURE 3 THE EXPERIENCE, REFLECTION AND ACTION CYCLE OF REFLECTIVE PRACTISE
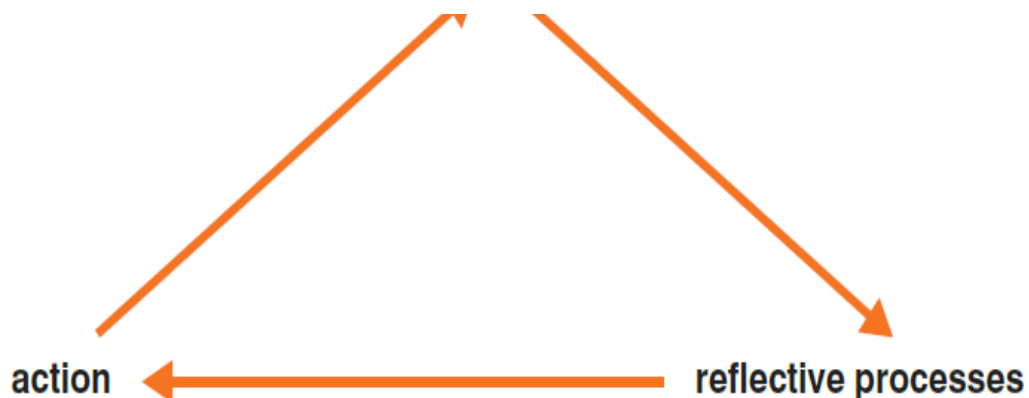
models. It has a good balance between structure and space to truly reflect without being held back by rigid structure.

There are three aspects to this cycle, **(1) Experience, (2) Reflection, (3) Action.** These refer to the experience being reflected on, in this case, the PhD process as well as other educational experiences arising from the research during reflection. The reflective process of reflecting writing allowing the researcher to learn from this experience and plan future action. The last stage is planning and taking deliberate action which then cycles back around to the first stage whilst considering the scope of the outcome, the strategy, and the consequences.

Reflective practice is particularly useful in research as it gives the researcher an opportunity to explore and reflect on themselves and the research process, especially as one of the core elements of the current research was to analyse the results with a view that the numbers are real students, real people, and not just statistics that need fixing. This is possible by the active process of transforming the researcher's experience into knowledge and future action. Therefore, by undertaking reflective practice, there is scope to initiate genuine action towards reducing the award gap.

Chapter 5: Research Design and methods

This chapter focuses on the research design of the study, the methods used, information on the measures used and the variables. This also includes how the data was accessed, data management as well as the data analysis plan.

Research Problem Overview

Whilst there has been an increase in the overall number of students participating in higher education, which is of course a cause for celebration, it is also not an accurate picture – there is more to this than simply the numbers. Strategies to increase widening participation has been successful to a certain extent, non-traditional students were encouraged to undertake a degree (The Robbins report 1963; The Dearing report 1997; and various higher education inclusive agendas across the sector). There were, and still are many first-generation initiatives in place to increase and encourage these students to participate in higher education. These types of initiatives encourage first generation and other non-traditional students to get a sense of how they could fit in and be in that environment. However, despite this increase in the number overall, a different problem became visible, whereby some students are awarded lower grades despite their comparable intellect i.e., the award gap. This is problematic as it is not that these non-traditional students are inherently less capable of achieving a higher award, but other factors are in play. Therefore, this research explores the many different factors that could influence how a student makes decisions at university using administrative quantitative data. This could stem from a multitude of differences, such as socioeconomic class, levels of affluency in the area they grew up in, as well as if family members have participated in higher education or no, and cultural background. There will be structural elements that impact on individual agency that have had an unquestionable impact on their development as a student and as an individual in general. While students frequently attend university following college or sixth form because it is the expected path for a young adult, whether they pass through university passively or actively engage will depend on both the support and opportunities made available to them, as well as a combination of their own agency.

This research will be using an adapted version of Bronfenbrenner's (1979) bioecological systems to explore the student in context. Figure 4 is a diagram of these systems with the variables used in this research in relation to where they fit in the systems. These layers help to understand how structural-cultural conditioning takes place.

FIGURE 4 DIAGRAM OF ADAPTED BRONFENBRENNER'S BIOECOLOGICAL SYSTEMS
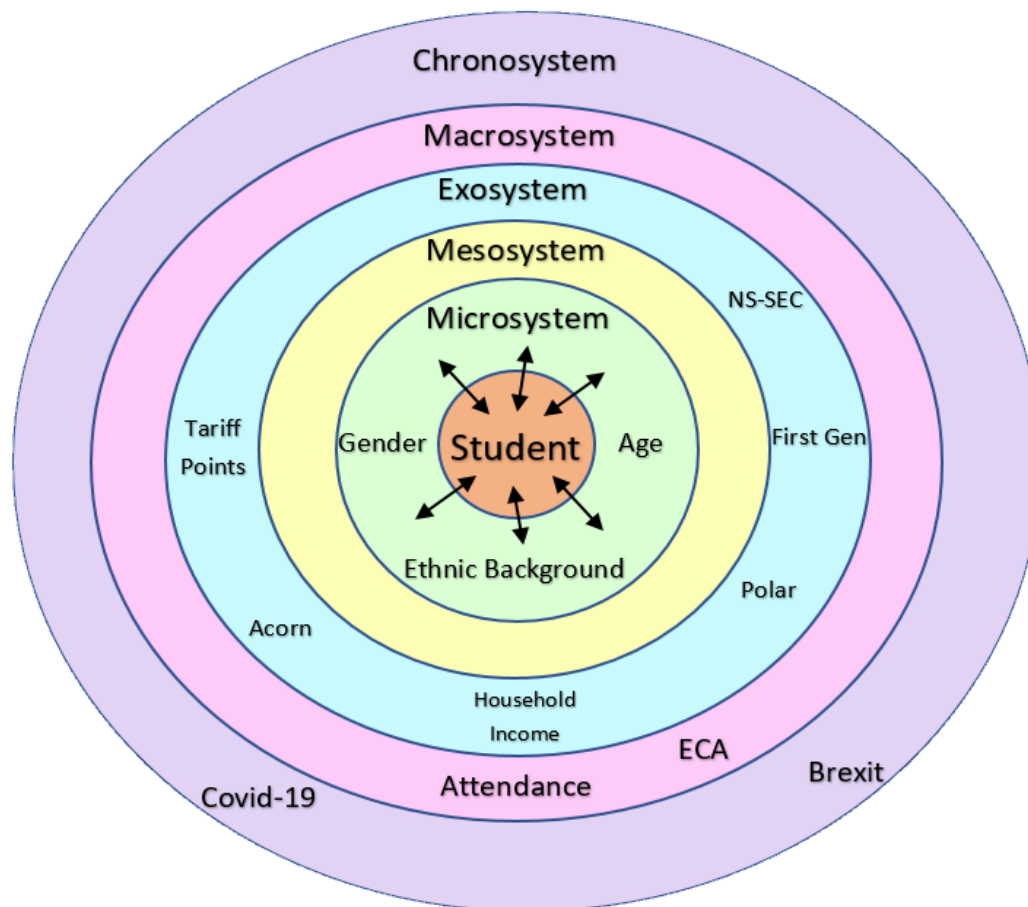
The different systems and the different levels an individual would have which influences their decisions in all aspects of life. The microsystem is the immediate interactions an individual has; the student would be the nucleus in this sense with different layers around them. For example, the child or individual is the nucleus to all the layers and system – in this research, this is represented by the variables gender, age, and ethnicity. The mesosystem is the interactions between the individual microsystems and the exosystem are the wider but still individual interactions that a student will have – this layer is represented by NS-SEC (socioeconomic status), first generation student, Polar score, Acorn score (neighbourhood affluence), household income and students tariff points. The macrosystem are the attitudes and sometimes unspoken norms, beliefs, and values – in this research, this refers to university culture represented by attendance and engagement in extracurricular activities. The final layer is the chronosystem, which refers to the wider location in time, such as the generational events out of an individual's control. This can be second-hand effects of parents divorcing, or on a larger scale, the Covid-19 pandemic. A detailed explanation of these layers can be found in

Chapter 2, pg. 23-29. These layers and systems go a long way to explain and understand the structural and cultural conditioning any individual experiences in Archer's morphogenetic cycle*.*

Archer (2010) describes this as the morphogenetic process – stage 1 where a given structure conditions the individual, stage 2 where different social interactions could influence and lead to stage 3 where structural modification takes place via self-regulation and actively trying to change their trajectory. For example, when an individual chooses to go to university, their individual habitus and/or structural-cultural conditioning will have an influence on their confidence, personality, and general outlook, and then with their interactions at university; both socially with peers as well as we academically with peers and tutors; can begin to develop their internal confidence, sense of self, and their sense of belonging. This can then lead to an increase in engagement academically as well as in participating in extracurricular activities ultimately improving their likelihood of achieving a higher final award classification (Reay et al, 2010; Bathmaker, 2013; Tomlinson, 2008). However, the goalposts have now moved, simply attending university, and completing a degree is not enough (Bathmaker et al, 2013). Students competing for the same roles in the market has meant that those who would have traditionally been more successful at university, increased their employability by taking part in extracurricular activities, work experience/placements and generally more engaged with student events/ clubs and societies. By doing these activities, it presents students with a familial habitus and structural conditioning that reflects that of the institution which then gives them a competitive advantage and so adds to the award gap.

This leads to these individuals presenting themselves in the market as more desirable as they are more rounded – not just technically skilled but personable, confident, and able to recognise their transferable skills. Therefore, it is important to understand where students come from in terms of habitus and structural-cultural conditioning and the effects on their final award, especially as the purpose of university is often a catalyst event for some students. The current research will do this by examining quantitative administrative data collected by Manchester Metropolitan University graduating cohort of 2016/17.

Research Questions
- What factors affect students final award classification in higher education?
- Why is there an award gap despite widening participation?
- How much of an effect do self-regulatory factors have on final award obtained?
- To what extent do structures influence student attainment?

Research Objectives

- Identify the patterns of demographic factors as predictors, such as structural barriers in attainment between students of different ethnicities. (Model 1)

- Identify the patterns of socio-economic factors as predictors for students from less privileged backgrounds, how they affect student success in comparison to those from more privileged (higher SEC) backgrounds. (Model 2)

- Explore the effects of engagement and self-regulation at university such as attendance and involvement in extra-curricular activities on attainment levels. (Model 3)

- Create a prediction of the student trajectory and produce a breakdown of structural barriers to make recommendations to inform institutional policies and wider education policy.

Sample

Participant information

The sample includes former students from Manchester Metropolitan University. The participants were from all faculties and departments. The sample in the current research is a diverse cohort graduating year 2016/17, and the total sample size is **6857.**

Demographic profile

Out of 6856 students, 58.9% (n4037) were female and 41.1% (n2819) were male. Their ages ranged from 17 – 67 years old. The ethnic background of these students included a large majority of White students (78.6%, n4764), followed by Asian students at 16.5% (n998) and then Black students (4.9%, n300). Students who had not included their ethnic background or were from 'other' ethnic backgrounds that had a very small number of students were excluded from analysis.

Methods

The research methods used in this work are quantitative, more specifically, administrative data collected by Manchester Metropolitan University (also known as organisational data). To

answer the research questions, secondary data was the most appropriate form of collection because the data that was required has already been collecting, therefore using existing data rather than trying to collect information that had already been collected was more time efficient. There are some positives and negatives that will be discussed later in this chapter, and show how the former outweighed the latter, but even with some of the negatives associated with using secondary data, the benefits of continuing with that type of data outweighed it, most importantly the amount of time primary data collection would have required to be able to a study of this size. This section discusses the research methods used, beginning with the rationale for employing administrative data. Additionally, there will be a discussion of the issues that arise when data is accessed in this manner along with the ethical implications that result from its use. A discussion of the measurements used in the study that reflect self-reflection and extra curriculum activities will be followed by the procedure of preparing the data for statistical analysis. It will conclude with a description of the procedures used to analysis the data.

Using administrative data

Administrative or organisational data are mass data already collected by universities for example or other public sector agencies (Elias 2014). This often includes information about the student's demographics, their qualifications prior to enrolment, household financial information and other socioeconomic data. This paired with data collected by university systems such as attendance, grades, engagement in class content via online learning systems and records of extracurricular activities makes it ideal for research surrounding higher education in general and the award gap for this thesis. The distinction between administrative data (for social science research) and traditional data is often characterised by what is 'found data' and 'made data' (Connelly et al. 2016).

The major differences between these types of data are the size, whilst made data may be large, they are often smaller in size than found data. Found data is usually 'found' and then used for research whereas made data may be in the form of a survey where data is collected for a specific purpose or purposes. Table 2 created by Connelly et al. (2016, 4) is a perfect explanation of these differences. The differences listed in this table, specifically the Found data – administrative data is consistent with the experiences of this research. Especially the need for extensive data management and having to bring together different fragments of data which were collected by different systems but of the same sample. In this case, the same cohort for the graduating year of 2016/17.

TABLE 2 : DIFFERENCES BETWEEN DIFFERENT TYPES OF DATA

MADE DATA Experimental	Made Data Observational	Found data Administrative data	Found data Other types of big data
Data are collected to investigate a fixed hypothesis Usually relatively small in size Highly systematic Known sample/ population	Data may be used to address multiple research questions Data may be very large and complex (but usually smaller than big data) Highly systematic Known sample/ population	Data are not collected for research purposes May be large and complex Semi-systematic May be messy (i.e., may involve extensive data management to clean and organise the data) Multidimensional (i.e., involve multiple fragments of data which have to be brough together through data linkage) Usually a known sample/ population	Data are not collected for research purposes May be very large and complex Some sources will be very unsystematic (e.g., data from social media posts) Multidimensional (i.e., involve multiple fragments of data which have to be brough together through data linkage) Usually a known sample/ population

The potential of administrative data

Administrative data from the social sciences is a valuable, and sometimes powerful resource, especially because of the insights that this kind of data can provide on social inequality, human behaviour, and the effectiveness of social policies (Card et al. 2010, Einav and Levin, 2013). The sample size is often large which is advantageous for analysis purposes as it allows the research to be more precise, and generalisable to the population (Biau et al, 2008). One of the major aims of inferential statistics is to identify themes from the sample to the population and this helps to serve this criterion, as the larger the sample, the less inference there is, and instead a higher probability of being more accurate and representable (ibid). Whilst sometimes trying to get a larger sample size can create more time and cost involved (for primary data collection), by using administrative data, this aspect is not a problem as it is already collected. Furthermore, by this kind of mass collected data, it allows the researcher to have access to data on those individuals who may usually not participate in social surveys such as those from socially disadvantage backgrounds. The administrative data for the current research consisted of 30,00 cases; this included the student's gender, ethnicity, etc. A more detailed summary of the data can be found on later in the chapter.

Administrative data can also be very useful regarding time, as it reduces the amount of time it takes to create and design a survey, get access to the participants, in this case students, and then follow their progress for 3 years, before the final analysis can even be conducted (Connelly et al, 2016). Whilst this would be extremely interesting, especially as the variables can be tailored to the interests of the researcher, time is a limiting factor during a thesis project. So, this method is very time efficient – yes admittedly a decent amount of time must be spent on the data management (this will be discussed further in the next section); it is still less time consuming than collecting this data specifically for the aims of this research.

Another aspect where using administrative data in the social sciences is advantageous is to assess changes over time, where the researcher can create different cohorts of individuals and study the changes over time. Cohort studies can be useful to examine societal change especially when significant historical events have taken place such as Brexit, the BLM movement, and the Covid-19 pandemic. Administrative social science data has been used for policy evaluation, such as neighbourhood characteristics, and safety, children at risk of poor outcomes as young adults, and the earnings of university graduates (O'Brien et al, 2015; Britton et al, 2015; Connelly et al. 2016). This research will examine the effects of sociodemographic and socioeconomic factors representing structural-cultural conditioning alongside the effects of individual agential factors such as engagement and attendance on undergraduate award classifications. As this type of data is collected periodically for all cohorts, comparisons between different cohorts could be made in the future, using similar or improved techniques which can provide rich analysis when putting into context of societal wide events, university teaching and learning changes etc.

Some of the challenges associated with using administrative data

Administrative data can be beneficial because it can be used to answer social science research questions through data linking. However, because this data is frequently used for secondary data analysis and was not collected for that purpose, there are some critical issues to consider when using this type of data. Playford et al (2016) state that there must be complete transparency and an audit trail of steps undertaken, at the analysis stage, and reproducibility must be possible, therefore all steps must be recorded and saved for transparency and reproducibility (research which can be consistently repeated). This can be is especially important as often there are multiple fragments of data, and these can sometimes be different format too. Reproducibility refers to the research being able to be duplicated as well as be replicated. By being transparent about all the stages and making the information

available it means that the study can be duplicated where the same results can be found as the original study. However, an additional aspect to consider is that by having that transparency it means that the study can be replicable, where the study has the potential for another research to not only duplicate the study, but also improve the robustness of the original study (Janz, 2015). This can be by either using new or additional measures. It is also important to note that measurements may change in the future as the variables are initially for records rather than analysis (Connelly, et al, 2016).

As administrative data is collected for organisational purposes, to either manage, monitor, or simply keep a record, the data may not be recorded in an optimal way for analysis, especially when the data is recorded in different systems, and therefore be fragmented and in multiple formats. This stage will probably be the most time-consuming to ensure that the different data are linked correctly using the identifying markers to link the data together whilst still adhering to a strict sense of anonymity (Elias, 2014). This is crucial as the data will not have been recorded with analysis in mind so whilst confidentiality and anonymity are paramount for all research, it becomes even more so for administrative social science data. Furthermore, an important consideration is the time needed to ensure that the data is useable (Connelly et al. 2016). For instance, a considerable amount of time was spent to manage the current data, to ensure that it is appropriately cleaned and collated before analysis. Linking the data also adds to this, despite the data being accessed from the same source for the most part, if they are in different datasets means not only collating it but double checking it to ensure it is done correctly to ensure it is ready for data analysis (Einav and Levin, 2013). In this research each student's data was linked to them using their student ID but then anonymised as soon as the data was checked to see they had been linked correctly.

Ethical considerations

When conducting any form of research, ethical considerations must be at the forefront of the research design as it is the moral obligation of the researcher to aim to do good with the research and avoid harm to participants (BSA, 2017; Salway et al, 2009). This aspect of research must not be overlooked due to the secondary nature of data collection, as the key components remain the same. The main concern in using secondary data, is the aspect of returning consent (Tripathy, 2013). Although the original data was collected for organisational purposes, it was not collected with research in mind. However, this can be overcome by ensuring identifying markers are completely removed where the sample cannot be identified, not only at the analysis stage in the dataset but also in the discussion of the findings. This can be problematic if the sample is small, and although names, and locations may be removed,

the identity of the person may be obvious as anonymity can be complex (Saunders et al, 2015). For example, if the sample is small, and the research mentions a person of a specific ethnicity from a specific age group, there may only be a few people who fit the criteria, taking away the notion of anonymity. Therefore, it is paramount that anonymisation of all identifying data is removed as soon as data linkage has been completed and data is not shared with anyone who has not been cleared by the ethics committee. However, this was not a problem for the current research as the sample size is large and very unlikely for anyone to be recognised.

This leads into the importance of confidentiality, for instance, as there were identifying markers initially, before data linkage, even with only a small number of people having seen the original data, it must be kept confidential (BSA, 2017). By disclosing any personal information to those not approved during the ethical application process, it is not just unethical but also morally deplorable. This is especially important when using administrative data as returning consent is a concern already. Therefore, whilst aiming to do good with the research, the researcher must do no harm in the process and minimise the risk of losing the integrity of confidentiality and anonymity especially as originally, especially as consent was given at the time when students provided demographic details, however it is questionable as to whether informed consent was given as they did not know it would be used for research. The data protection act (2018) covers these aspects; to ensure data is secure and not accessible by others – data was saved on an encrypted device, password protected, pseudo-anonymised as soon as was possible and identifying factors were only kept as long as it was necessary.

Data Access

The first step was to gain access to the administrative data. In order to do this, the Strategic planning office were contacted very early into the research design process. After an initial meeting with them, a discussion took place regarding the plan for the research project which included what the project aims were, what kind of variables the research would require. An agreement was made based on ethical approval. Once ethical approval was in place, a series of meetings took place to discuss more focussed aims of the research, this to gaining access to a substantial amount of fragmented data, which included multiple files of multiple versions of the data as different variables had been recorded for multiple cohort groups. There were 3 main data files: student record, Student engagement monitoring, and DLHE.

Student record data

This is administrative data collected by the university's strategic planning department, upon arrival of the students via enrolment as well as central data recorded throughout the student's undergraduate career. This included variables such as demographics, socio-economic factors, and academic attainment (final award) and engagement in extracurricular activities, such as being a course representative, being a volunteer or being members of a society or club collected by student the university and collated by the strategic planning department.

Student engagement monitoring – attendance data

This was data collected by student attendance monitoring prior to the new streamlined system and therefore the data had to be extrapolated from the old system. At the time of data access, student attendance monitoring was in the process of transitioning to the new system, so I made the decision of using the old system data despite it having a larger number of missing data. This was better than using old system data for the first two years of the cohort's undergraduate career and the new system for their final year, which was not ready at the time of data access as the system was still under probation. This included data on student attendance for core lectures.

DLHE graduate destinations

This data was accessed via the strategic planning department and was data from the Destinations Leavers Higher Education survey – six months after graduation and twelve months after graduation. This included data such as job type, salary, if qualifications were needed to get the job etc.

Measures

The following variables (Table 3) were used to investigate the links between structural factors, agential factors, and final award classification. Structural factors refer to 'structural or cultural conditioning' that Archer (2010) outlines in 'the morphogenetic cycle. This is the interplay between cultural and structural experiences. This includes institutions such as family, school, neighbourhood, and other cultural systems. This stage of the morphogenetic cycle is also explained by Bronfenbrenner's (1979) bioecological systems, specifically the microsystem such as a person's immediate interactions, parents, school etc. Agential factors refer to the 'social interaction' stage in the morphogenetic cycle. Whilst social conditioning does have an impact on agential actions, these variables represent an element of agency such as choosing to attend lectures and/or engagement in extra-curricular activities which are not a compulsory component of an individual's programme. These variables and measures were included as

they represent the theoretical framework of the project, where individual measures represent a specific layer within Archers morphogenetic cycle stages, and Bronfenbrenners bioecological systems. Table 3 demonstrates how these variables measure the concepts of structural factors and factors that represent agency. These link to the Archers stages of structural conditioning and socio-cultural interactions. Each variable, its measure and where it sits within Bronfenbrenner's bioecological system, such as micro, macro layers etc., has been further explained after Table 3 (See page 68). For instance, to measure structural conditioning, the following variables were included: Socioeconomic status, first generation status, household income, neighbourhood affluence, Polar4, Tariff points. To measure agency and socio-cultural interactions, the following variables were included: attendance, and engagement in extracurricular activities. Furthermore, as demonstrated in Figure 4 (pg. 75), the following variables represent the microsystem: gender, age, ethnic background; exosystem: socioeconomic status, first generation status, Polar4, household income, neighbourhood affluence and tariff points; macrosystem: extracurricular activities, and attendance. Whilst not measured, but considered an important aspect of the bioecological systems, is the chronosystem impact such as Brexit and Covid 19. These measures are included based on the methodological – theoretical framework.

TABLE 3 BREAKDOWN OF VARIABLE CATEGORIES

Predictor Variables			Dependent variable: Level of attainment (Final award)
Demographic characteristics	Structural factors (family and neighbourhood)	Agential factors: Self-regulation (Level of engagement)	
Age	Socioeconomic Status	Overall Attendance	
Gender/Sex	First generation student (Parent HE)	Extracurricular activities (Committee of society or club)	
Ethnic background	Household income	Extracurricular activities (Course representative)	
	Neighbourhood affluence (Acorn type)	Extracurricular activities (Volunteer)	
	Proportion of participation in HE (Polar4)	Extracurricular activities (Member of society or club)	
	Cycle of Success (Tariff points) *		
*Links to habitus and situational context and therefore included in the external-structural factors section.			

Context of the measures and variable information

Outcome variable – Final Award Classification		
Students final award classification	1	Third Class/Pass (3rd)
	2	Lower Second Class (2:2)
	3	Upper Second Class (2:1)
	4	First class (1st)

This is the outcome variable to measure student's performance at higher education. It is based on each student's final award classification where:

0 – 39 is fail
40 – 49 is Third Class/Pass
50 – 59 is Second Class Lower
60 – 69 is Second Class Upper
70+ is First Class

Microsystem/Nucleus – individual demographic characteristics

These variables measure individual demographic characteristics such as gender, age, and ethnicity. They are considered the nucleus within the context of the layers in Bronfenbrenner's (1979) bioecological systems which are a part of the 'structural-cultural conditioning' stage in Archer's (2010) morphogenetic cycle.

Gender	Student's gender/sex (self-reported)	0 – Male 1 - Female
Age	Students' age on commencement	17 – 67 years old
Ethnic Background	Students' ethnic background in groups	1 – Asian 2 – Black 3 – White

Studies often group together all categories that are not white into BAME (Black, Asian and Ethnic Minorities), this can be problematic as students from different ethnic backgrounds may experience different barriers within the higher education sector (Richardson, 2015). Even with Black or Asian categories, the differences in cultural norms may also have an impact on how a student approaches higher education and by extension, their performance and award obtained (ibid). However due to the disproportion in student numbers, in this study it has been necessary to group together all Black backgrounds and all Asian backgrounds together despite the acknowledgement of key cultural differences that are likely to exist between each group. Due to low numbers of the different groups, they were grouped accordingly. Students

from other backgrounds were excluded from this study due to the extremely small numbers in each group.

Structural Factors

Exosystem (Family circumstances)

These variables measure aspects of the microsystem as they are a part of family and neighbourhood circumstances. These are the interactions an individual would experience based on their inner circle such as with parents, school, siblings who can have an impact on the individual.

NS-SEC	Students' NS SEC based on parents' occupation	1 – 8 (1 = higher)
Parents' Higher education	Whether students' parents have completed higher education i.e., whether the student is a first-generation student or not	0 – Yes (ParHE) 1 - No (ParHE)
Household income	Student' household income	0 - £1,932,776

Socioeconomic status is measured using the standardised NS-SEC (National Statistics Socio-economic Classification). The following are the simplified classification groups which are based on occupations (ONS, 2010):

Operational categories

1. Higher managerial and professional occupations
2. Lower managerial and professional occupations
3. Intermediate occupations
4. Small employers and own account workers
5. Lower supervisory and technical occupations
6. Semi-routine occupations
7. Routine occupations
8. Never works and long term unemployed

This aspect is important to explore as differences in socioeconomic status may have an impact on the individual. For instance, families with higher socioeconomic status, and higher level of resources may encourage their children and emphasise the importance of engaging in extracurricular activities which can improve academic performance (Jaeger, 2010).

Parents higher education status is used to determine whether the student is a first-generation student or not. When a parent has completed higher education (yes), this would mean that this is not first gen. It is important to consider a student's home environment surrounding higher education as this can impact a student as it may be the difference between having prior experience and sharing with offspring, it being more likely for there to be priority placed on higher education and higher achievement whereas students who are first generation at university may have more barriers to overcome (Lareau & Ferguson, 2017; Reay, 2021).

Household income is measured by the students self-reported household income in British Sterling. This variable is included as the impact of having a lower income may mean that there are financial worries, less income available for educational resources such as laptops, software, textbooks (The Sutton Trust, 2017). Furthermore, if the family are financially stretched it may mean that the student may also be required to work part time in addition to their studies (Pollard et al, 2019).

Exosystem (Neighbourhood circumstances)

These variables measure aspects of the microsystem as they are a part of family and neighbourhood circumstances. Like the familial institutions, especially in the younger formative years, the first interactions a person would have outside of their family would be neighbours, school friends and others in the same area. This is important because where you grow up can impact an individual's development, personality, confidence level, worldview, and decisions such as whether to go to university or not, what to study, what kind of career they are interested in.

Acorn Type	Students' acorn type classification	1 – 62 (1 = higher)

Acorn type (CACI 2018) is a consumer classification system based on demographic factors, population and consumer behaviour using postcodes, neighbourhoods and are created using open data, census data etc.). This research will use this measure to explore the effects of neighbourhood influence. Whilst this measure may not be able to specifically determine the academic outcome on its own, it can help to fill the picture of the influencing factors. By looking at the neighbourhood and type of property, it also helps to create a picture of the type of peers/friends an individual may have as well as the level and type of opportunities afforded in the area. This variable is a scale-continuous variable as there is a numerical scale from 1 – 62. To better understand what these numbers mean in relation to the scale, the Acorn system

provides a descriptive nature to the scale. Some of the categories in the acorn system include the following:

1. Affluent Achieves
14. Rising prosperity
21. Comfortable communities
34. Financially Stretched
49. Urban Adversity
60. Not private households

(For a full list, please see appendix 7, pg. 160)

Polar4	Student's Polar score using Polar4 scale	1 – 5 (1 = low)

Polar4 is the proportion of participation by 18- or 19-year-olds in higher education based on postcode. It looks at the likelihood of students participating in higher education. It is calculated by dividing the number of students' participation in HE by the number of young people in that postcode (OFS 2021). As it is a neighbourhood characteristic, it is included here to explore the effects of to explore whether being from a lower quintile influences level of final award. Whilst people from the same area are not the same, 'there are more similarities within neighbourhoods than between them' (ibid, 2), and it provides a quick look at a neighbourhood and their participation in higher education which can demonstrate how likely other young people from the area are to enter higher education.

Exosystem (Educational circumstances)
These variables measure aspects of the microsystem as they are a part of family and neighbourhood circumstances (Bronfenbrenner, 1979)

Tariff Points	Students' tariff points using the new system	12 - 216

Tariff points i.e., education is in the second layer as this experience is outside of the individual such as school, 6th form or college. This measure is included to investigate patterns between success or higher grades and achievement in higher education. It may be that a student that has higher tariff points may be better placed to navigate new educational situations, be more

confident and know how to ask for support when needed. As well as repeat the cycle of success (Uchida et al, 2018). Whilst this variable was used as a way to gauge whether previous success leads to confidence and therefore higher likelihood of further success, it could be critiqued that, that is too vague. Nevertheless, it is included to measure cycles of success.

Self-Regulatory Factors

Macrosystem (university – contextual institutional culture)

These variables measure aspects of the macrosystem as university culture has an influence on the individual outcome. In relation to how much university cultural capital they have access to or engage with.

Attendance	Student's average attendance of core units throughout their undergraduate career	0 – 300

University influence/culture of what is important to an individual based on widely shared values. This is a conceptual measure about attendance and putting into practise the shared belief. Therefore, this in the macro stage. This measure is included in line with Archer's (2010) concept of morphogenesis and agency. That whilst it may be difficult to change the situation an individual is in; it is not impossible. By actively reflecting on what they may have experienced, they can choose to 'pay the cost' of making a change (Archer, 2010. Each action or decision has a cost, and to some this cost may mean a more difficult process but if the potential outcome were 'worth it' then an individual would take the risk. Whilst certain circumstances may make it difficult for some students to attend all lectures and seminars, ultimately there is some agency involved.

Engagement in Extracurricular activities	Participation in extracurricular activities	0 – 4

University influence/culture of what is important to an individual based on widely shared values. This is a conceptual measure about participation in extra-curricular activities and is therefore this in the macro stage.

This variable is an index for 4 aspects of participation in ECA. Where each of these were added together (0 – 4). This was included as a scale variable rather than categorical due to

the index nature of combined the different scores for each element of extracurricular activity. However, retrospectively, this could have also been an ordinal variable where categories could have been participation in one, two, three or four elements of extracurricular activity. The four elements included were:

1. Member of a sports club or society
2. Committee of a sports club or society
3. Course representative
4. Registered volunteer

It is important to note that there are other aspects to participation, which are not included in the data. Due to limitations of the data, these have been included to create the index. This measure is included in line with Archer's (2010) concept of morphogenesis. Like the attendance measure, there is also agency in engaging in extracurricular activities. This variable is important to include it is not a compulsory part of a programme and students will only engage in non-compulsory activities if they feel a sense of belonging to the university, their programme, tutors, and peers. However, as noted earlier, this measure does not capture all aspects of engagement.

Data Management

These datasets were extremely large in terms of the variables and total sample size (approx. 6000 – 20,000). Furthermore, there are 125 variables in the administrative data, some of which are duplicates (different format), and some were not needed for this research and were therefore disposed of; there were 118 variables in the DLHE data, which was organised and collated. The first step was to extract the cohort groups that were to be the focus of this research from each location-format and to collate them into one file using Excel's VLOOKUP function. As the data was extremely large, a codebook was created in order to keep a record of available variables. The next step was to identify and delete duplicate variables and variables that did not have any connection to this research to make enhance the ethical perspective as well as to make analysis easier to manage. This stage was initially using MS Excel which meant that the dataset was now in smaller datasets, and with one of the cohorts in SPSS format for analysis. This allowed for early descriptive statistics (univariate analysis) and cross tabulations (bivariate analysis) to be conducted. I then collated other variables in other formats in SPSS and reduced variables again. This then allowed me to begin more in-depth analysis via inferential statistics and multivariate analysis such as Multiple Ordinal Regression. This was in the form of quantitative data and included some engagement (student monitoring) and DLHE data (destinations after graduation). Examples of data includes socio-

demographic information, attendance, extracurricular activities, and academic attainment in the form of final award.

Missing data

As is often the case with administrative or organisational data, there can be missing data, especially when linking different datasets together. This was the case with this data too and so initially steps were taken to investigate what type of missing data it was, whether it was missing at random or not. Results indicated that there was a mixture of missing not at random and missing at random. A set of 5 multiple imputations were conducted however, when assessing the data, there was only a very marginal difference, so the decision was made to keep the original data whilst acknowledging the missing data. Therefore, the following is a summary of the missing data to ensure transparency, which is crucial especially when using administrative data.

FIGURE 5 MISSING VALUE PATTERNS

Figure 5 shows the missing value patterns. Most of the missing data is from the attendance variable, followed by household income and tariff points. A further breakdown of these variables can be seen in Figure 6.

FIGURE 6 VARIABLE SUMMARY: MISSING DATA > 10%

	N	Percent	Valid N	Mean	Std. Dev
Overall Attendance	4010	58.4%	2852	63.39	40.449
Household Income	2480	36.1%	4382	20638.55	34392.116
Tariff Points	941	13.7%	5921	111.49	29.069
Parent HE	851	12.4%	6011		

Figure 6 demonstrates a breakdown of the missing data, in particular the variables with data that has more than 10% data missing. The **overall attendance** variable has more than half of the data missing (58%). This was most likely because the attendance monitoring systems was not recorded as well as it could be (at that time). As mentioned earlier, the cohort group used in this thesis were in a transitional period in relation to their attendance monitoring. If comparisons were made with later cohorts in the future, this variable would not have as much missing data as the system is much more streamlined. **Household Income** has 36% missing data, this may be because students with lower or higher household income may have withheld this information deliberately as they may feel it an invasion of their privacy (Singer et al, 1993). Furthermore, students with higher household income may not declare their income as they do not require financial support so do need the need to disclose it. The other two variables 'tariff points' and 'parent HE' i.e., their education level have a very small percentage of missing data (13.7% and 12.4% respectively). These are again most likely due to privacy and students not wanting to share that information.

Data Analysis Methods

The conceptual framework discussed earlier, informs the measures for this research. After the data was organised and collated into one dataset, it was exported to IBM SPSS for analysis. More specifically, descriptive, and inferential statistics were conducted using univariate descriptive analysis, and bivariate analysis to prepare for multivariate analysis. This was conducted in a separate analysis to build a bigger/overall picture. As mentioned earlier, there are many elements to this research, which have separate indicators. For instance, measuring structural factors as predictors, measuring agential factors (self-regulation) and outcomes overall. Once these were explored it allowed predictions to be made on levels of attainment and therefore possible indicators of social mobility. This enabled the author to combine the different factors to create a more precise and in-depth picture of student attainment levels, the process of learning at university, and the effects it has in the long term.

Exploratory Data Analysis

Univariate analysis is the first form of analysis in all good research as it provides a solid foundation for the research (Chamberlain, 2013). By looking at individual variables, it provided a descriptive picture of what was in the sample, in regard to demographic and socio-economic factors, the breakdown of ethnic background, etc. This stage allowed for assessing the distribution of the data and ensuring that the variables selected were fit for purpose. The next stage following univariate analysis, was bivariate analysis where all the key variables were analysed with the dependent variable individually with the following groupings: (1) gender,

ethnicity, and final award (2) Gender, ethnicity, and structural factors. By conducting bivariate analysis which included cross tabulations and comparing means, it provided a snapshot of the data and allows for comparisons (Bertani et al, 2018). This stage was equally important to the first, as it meant that the degree of influence of each structural or demographic factor on the students' final award was able to be explored. This was crucial as the experience of an Asian female is vastly different to that of a Black man. This breakdown of ethnic backgrounds provides an increasingly interesting aspect to the whole narrative.

Multivariate Analysis

The main purpose of this thesis was to assess and identify the factors that have an influence on level of final award, i.e., explore the award gap. The theoretical framework was created with Archer's Morphogenetic cycle and Bronfenbrenner's bioecological systems in mind to both understand and group together certain variables. This also aided with ensuring that the variables measured the concept of structural conditioning and agency, and their influence on final award classifications.

Ordinal Regression

Ordinal regression was used to test the hypotheses as the outcome variable was ordinal in nature. (1 – First Class Award, 2 – Upper Second-Class Award, 3 – Lower Second-Class Award, 4 – Third Class Award) and therefore to use linear or logistic regression would not have been appropriate. For linear regression to be utilised, the dependent variable would have needed to be measured in scale format and had there been actual percentage/mark available in the data, this may have been a possibility. However, due to the nature of the type of measure, it was not. Logistic regression was also considered; by using the 'Good honours or not' variable, logistic regression would have been possible, but again this would not be the most appropriate method as it would have meant losing some meaningful data as the final award classification is undoubtedly ordinal in nature.

Ordinal regression allows an ordinal dependent variable to be tested with one or more independent variables to predict a given outcome (Osborne, 2017). It is somewhat a generalisation of binomial logistic regression and allows the researcher to determine which of their independent variables have a statistically significant effect on the dependent variable i.e., the final award classification. It also enables the researcher to interpret the odds of one group having a higher or lower influence on the dependent variable (ibid). For example, with different

ethnic backgrounds and final award in one group, compared to a second group such as one of the structural-cultural factors and final award.

The assumptions for ordinal regression include: (1) the dependent variable is ordinal, (2) the independent variables are continuous, ordinal, or categorical, (3) there is no multicollinearity (this can happen when two or more variables are highly correlated), and (4) there are proportional odds. This means that the relationship between the independent and dependent variable is constant, regardless of which groups are being compared (Osborne, 2017). These were tested by using the model fitting information to check whether the full model is statistically significant when including all the independent variables in comparison to the intercept only model. The goodness of fit test was also used to determine whether the model demonstrated a good fit to the data.

The parameter estimates – the regression coefficients interpret the predicted change in the log odds of being in a higher category in the dependent variable. For instance, the first-class award classification as opposed to the other groups. This allows for meaningful interpretation of the data where each increase in unit on the independent variable there would be a predicted increase in the log odds of being at the higher level in the dependent variable (Osborne, 2017).

To examine the effects of the various structural-cultural factors, the data analysis was separated into 3 models to represent the different stages of Archer's morphogenetic cycle, further explained by the breakdown in layers by Bronfenbrenner's bioecological systems. Each model also directly connected to each of the research objectives as stated earlier in the chapter.

TABLE 4 MODEL BUILDING SUMMARY

MODEL	DEPENDENT VARIABLE	INDEPENDENT VARIABLES
MODEL 1	Final Award	**Demographic factors** *Gender* *Age* *Ethnicity*
MODEL 2	Final Award	**Demographic factors** *Gender* *Age* *Ethnicity* **Structural-cultural factors** *First generation student* *NS-SEC* *Neighbourhood affluence* *Household income* *Tariff points*
MODEL 3	Final Award	**Demographic factors** *Gender* *Age* *Ethnicity* **Structural-cultural factors** *First generation student* *NS-SEC* *Neighbourhood affluence* *Household income* *Tariff points* **Self-regulatory factors** *Overall attendance* *Engagement in extracurricular activities*

Model 1 - represented the student's demographic characteristics, the nucleus of each individual student such as age, gender, and ethnicity. This was to explore the differences in these core characteristics.

Model 2 - represented habitus, and structural-cultural conditioning (Archer, 2010), for instance, the micro and exosystem as described by Bronfenbrenner (1995). The combined effects of the micro and mesosystems on the individual. This included parents' socio-economic status, household income, acorn type etc. This was to explore the effects of structural factors on level of attainment

Model 3 – represented the possible impact of agential factors - self-regulation (Archer 2010) i.e., the macro system (Bronfenbrenner 1979, 1995) – university culture and educational capital and stage 3 of Archer's (2010) morphogenesis cycle: - structural elaboration). Therefore, whilst habitus is not fixed or permanent (Bourdieu, 1984), however, the burden of change leaves many at a disadvantage and structural barriers would naturally have an impact

on their level of attainment. Archer (2010) on the other hand argues that whilst there are barriers, they can also be drivers. Both structure and agency have an influence on the individual as well as society in general, however Archer argues the detriment of conflating the role of either aspect (Archer, 2010). For instance, whilst it may be difficult to change the situation an individual is in, with the appropriate support, it is not impossible. Archer (2010) states that by actively reflecting on what they may have experienced, people can do a cost benefit analysis of their life and life chances. People can choose to 'pay the cost' of making a change. Every action or choice has a price, and for some people that price may be a more challenging process, but if the prospective reward was 'worth it', the person would accept the risk. This model included overall attendance and extra-curricular activities to measure self-regulation (level of participation).

Chapter 6 – Results

This chapter focuses on determining the characteristics of the sample and discusses the findings of the research based on three statistical models. Descriptive statistics are a key component of any research. They provide a foundation for the study, a meaningful way to explore and summarise the data, as well as assess the data to ensure it is compatible for the research questions and overall aims of the study (Singh, 2011). In this study, the broad research questions were to investigate which factors affect the level of attainment in higher education; which factors have a significant effect on the attainment gap despite widening participation (models 1 and 2); and how much of an effect better self-regulation has on attainment levels (model 3).

In relation to the specific aims of the study, these were conducted via three statistical models building on each other using ordinal regression (GLM) where the model fit was checked prior to analysis. The following is a theoretical outline of these models and the research objectives.

- Identify the patterns of demographic factors as predictors, such as structural barriers in attainment between students of different ethnicities. (Model 1).
- Identify the patterns of socio-economic factors as predictors for students from less privileged (non-traditional) backgrounds, how they affect student success in comparison to those from more privileged backgrounds. (Model 2)
- Explore the effects of engagement and self-regulation at university such as attendance and involvement in extra-curricular activities on attainment levels. (Model 3)

This chapter begins with descriptive statistics to understand the sample and ensure that the variables measure each aspect theoretically, starting with the dependent variable, followed by the predictor variables. This is followed by the results of the three models, a summary of each and the emerging themes from the analysis.

Exploratory Statistics

In this study, potential predictors of attainment level were categorised into three groups – *(1)* students' *demographic characteristics* such as age, gender, ethnicity; *(2) familial circumstances* that may influence the students' decision-making and/or how they navigate university based on their cultural and educational capital. This, to a certain extent, represents habitus and structural conditioning as described by Bourdieu (1986), the physical embodiment

of cultural capital such as the deeply ingrained habits, skills and dispositions that we possess due to our life experience and structural conditioning, behaviours and responses learned through socialisation rather than instinct (Archer, 2010). Lastly, *(3) self-regulation*, representing the level of engagement, such as self-monitoring, understanding university culture or acting on educational capital by of going beyond the degree by participation in extra-curricular activities (Bathmaker et al, 2013; Tomlinson, 2008). Therefore, Table 5 demonstrates the breakdown of these groups, how they fit in the conceptual framework and therefore the three models. These variables link to the research question of 'what factors affect students final award classification in higher education?'

TABLE 5 : BREAKDOWN OF VARIABLE CATEGORIES

Predictor Variables			Dependent variable: Level of attainment (Final award)
Demographic characteristics	**Structural factors (family and neighbourhood)**	**Self-regulation (Level of engagement)**	
Age	Socioeconomic Status	Overall Attendance	
Gender/Sex	First generation student (Parent HE)	Extracurricular activities (Committee of society or club)	
Ethnic background	Household income	Extracurricular activities (Course representative)	
	Neighbourhood affluence (Acorn type)	Extracurricular activities (Volunteer)	
	Proportion of participation in HE (Polar4)	Extracurricular activities (Member of society or club)	
	Cycle of Success (Tariff points) *		
Links to habitus and situational context and therefore included in the external-structural factors section.			

Dependent Variable

The dependent variable was a student's final award at university. This variable represents their degree classification at the end of Level 6. Out of 6857, slightly less than half (43%) of students in this sample achieved an upper second-class degree, followed by just over one-quarter (27%) students achieving a first-class degree in 2016/17. When comparing this with the national average in 2016/17, this is consistent (HESA, 2020).
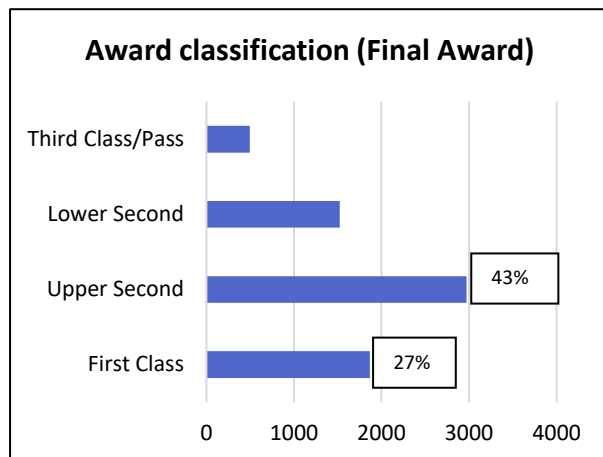
Award classification (Final Award)

Third Class/Pass

Lower Second

Upper Second   43%

First Class   27%

0   1000   2000   3000   4000

Demographic characteristics of students

Gender

The sample consisted of 6857 students from variable backgrounds. Out of 6857, the large majority (59%) were female students and 41% were male. This is similar to the national average of 56% females, and 44% male (Hewitt, 2020). Whilst previously women have been outnumbered in higher education, this shift could be explained by the change in university types in the 1990s when they went from polytechnics to universities. This was largely due to governmental strategies to increase widening participation in higher education (Dearing report, 1997). Furthermore, traditionally, women undertook careers such as nursing and teaching, and whilst skilled, did not require a formal degree. Therefore, this could explain the increase as traditionally these roles did not require a formal degree, and when this changed, the number of women in higher education increased (Hillman and Robinson, 2016).

Age

The age range at commencement was between 17 and 67 years of age. The mean was 20 with a standard deviation of 4.37. Out of 6857, the large majority (78%) were under 21 years of age as would be expected, of those students who were 21 years or over i.e., mature students according to the markers outlined by HESA (22%), 993 students were 21 – 24 years of age. Whilst this group is a little older than the usual 18 or 19, and still technically mature students, they are still close to the age of students following the traditional educational

progression. This delay in entering higher education could be explained by gap years, travelling, going straight into work and then either needing or wanting a career change.

Ethnic background

Ethnicity or the ethnic background of the students was a key component in this research, not only regarding demographic information but also specifically answer the research question 'What factors affect students final award classification in HE?' Out of 6062 students, almost three-quarter (74%) were from a White background, followed by students from Asian backgrounds (15%), international students (non-UK domicile) and other backgrounds. This is like the national average as recorded by HESA (2020) for the graduating year 2016/17, out of 2,317,880 students overall, 77% were White, 10% Asian, and 7% Black. Despite an increase in strategies of widening participation, has widening participation been successful? Who are the increased numbers of students coming to university, is it mostly middle-class students – therefore, how successful has it really been?

Looking at data recorded by HESA (2020) for the past 5 years, there has been a steady increase in the number of Black and Asian students. For instance, between the years of 2014/15 to 2018/19, there was a 16.9% increase in Black students enrolling at university. The data showed a similar trend for Asian students (19.67% increase). So, whilst there has been an increase in the number of one type of 'non-traditional' students enrolling, it is imperative that we do not simply stop at this progress of a steady increase without looking at the bigger picture, such as performance and attainment levels. To do this, there must be a larger number of high achieving non-traditional students to begin with (Wong and Chiu, 2019). Furthermore, ethnicity is not the only factor in being a non-traditional student, other aspects include first generation, socio-economic status, and lower income households. Differences in performance will be explored in the multivariate analysis stage).

Studies often group together all categories that are not White into BAME (Black, Asian and Ethnic Minorities), this is problematic as different ethnicities may experience different barriers within the higher education sector. Even with Black or Asian categories, the differences in cultural norms may also have an impact on how a student approaches higher education and by extension, their performance. However due to the disproportion in student numbers, in this study it was necessary to group the ethnic groups into White, Black, Asian, and Other. Out of 6062 students, the large majority were from a White background 74%), followed by students from all Asian backgrounds (15%), students from all Black backgrounds (6%) and other (5%).
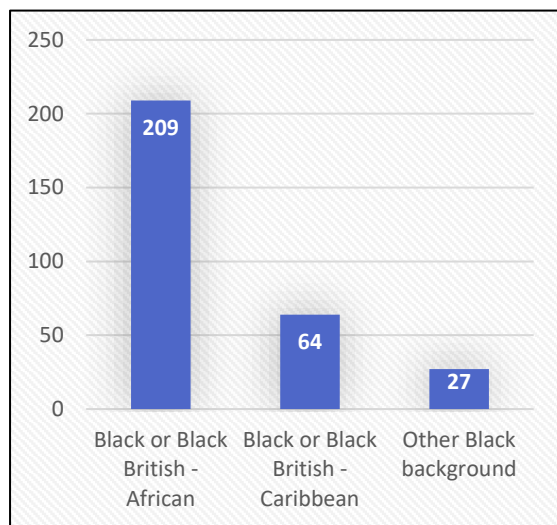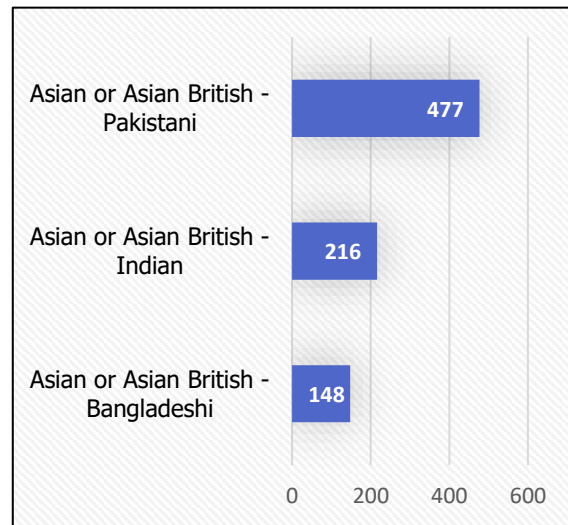
Figure 8 shows the breakdown of Black backgrounds including Black African (n209) and Black – Caribbean (n64). Furthermore, Figure 9 shows the breakdown of individual ethnic groups within the Asian background such as Bangladeshi (n148), Indian (n216) and Pakistani (n477). These are not an exhaustive list of different backgrounds within the groups and whilst these ethnicities were grouped together for the purpose of this study, it is imperative to note that they are different and have their own distinctive cultures, barriers, and experiences. However, it has been necessary to group together all Black backgrounds and all Asian backgrounds together despite the acknowledgement of key cultural differences that are likely to exist between each group. Due to low numbers of the different groups, they were grouped accordingly. Students from *other* backgrounds were excluded from this study due to the extremely small numbers in each group.

Family and neighbourhood circumstances

To measure Archer's concept of Morphogenesis, and the aspect structural conditioning, the following variables were included to measure structural and neighbourhood characteristics, NS SEC, household income, neighbourhood affluence (acorn score), Polar4, first generation student and tariff points. Whilst people are different and not necessarily identical, there are generally more similarities within neighbourhoods than between them (OFS, 2020)

Socio-Economic Classification – NS SEC
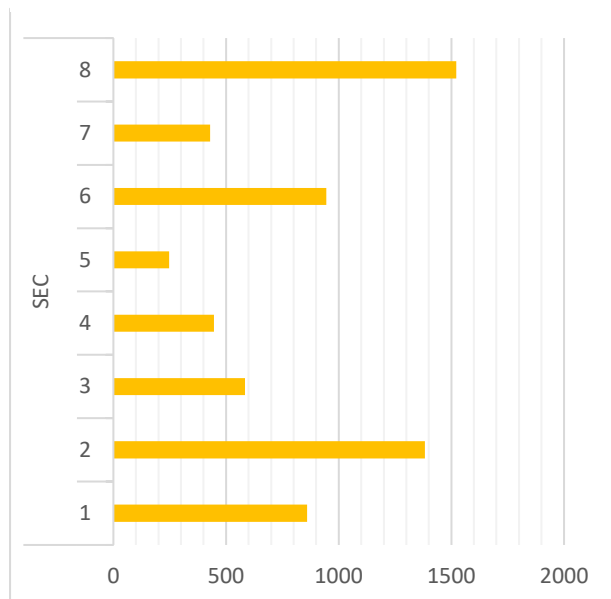
In the current study, socio-economic class is based on the students' parents NS-SEC (National Statistics Socio-economic Classification) if living in halls or with parents. Socioeconomic class for mature students or students living in their own residence is based on their own classification. The following is the simplified classification groups (ONS, 2020), which are based on occupations ranging from 1 – 8, where 1 = 'higher managerial and professional occupations and 8 = 'never works or long term unemployed'. i.e., the larger the number the lower the SEC. Figure 10 shows that out of 6415, the most common SEC was 8 - 'never works or long term unemployed' (24%), followed by 2 - 'lower managerial and professional occupations' (21%). The mean was 4.46 – change to mode (std. dev 2.62). This is one aspect of family circumstances. This aspect is important to explore as differences in socioeconomic status as it can have profound differences in a student's familial life, experiences and therefore conditioning.

Household Income

The household income for this cohort of students based on their parents/guardian's salary was £0 - £1,932,776. The median average was ***£15,608,*** which considerably lower than the UK median salary of £28,200 in 2016 (ONS, 2016). It is important to note however, a significant proportion of data was missing (n2480 out of n6857). Some of these may be down to not being collected systematically, as it is not mandatory. It may be that students with lower or higher household income may have withheld this information deliberately as they may feel it an invasion of their privacy (Singer et al, 1993). Furthermore, students with higher household income may not declare their income as they do not require financial support so do need the need to disclose it.

Neighbourhood Affluences (Acorn Type - Consumer Classification)

Acorn type (CACI 2019) is a consumer classification system based on demographic factors, population and consumer behaviour using postcodes, neighbourhoods and are created using open data and census data etc., which ranges from 1 - 62. The larger the number, the less affluent the area/location. As it is a large scale, CACI also provide categories where scores are grouped together. For example, a score between 1 – 13 would be categorised as Affluent achievers. An example of this scale is as follows:

- Affluent Achievers (1 - 13)
- Rising prosperity (14 - 20)
- Comfortable communities (21 – 33)
- Financially Stretched (24 – 48)
- Urban Adversity (49 – 59)
- Not private households (60 – 62)

FIGURE 11: ACORN SCORE BY GROUP (NEIGHBOURHOOD AFFLUENCE)
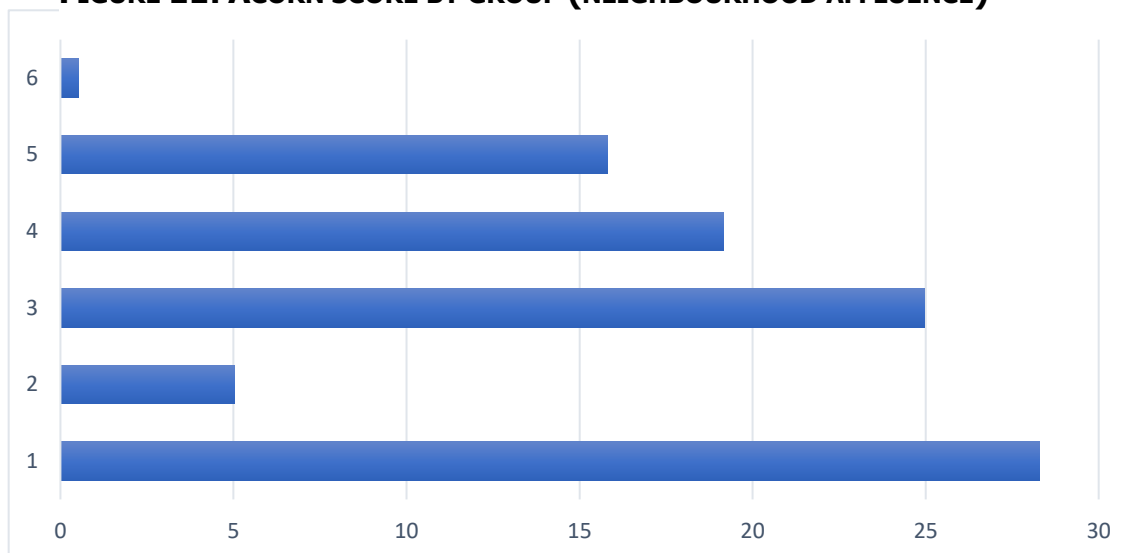
Figure 11 shows the breakdown of the acorn score (neighbourhood affluence) when grouped. Out of 6364 students, the majority of students came from an affluent background (30%, 1 – affluent achievers, which includes 'lavish lifestyles, executive wealth and mature money'). Followed by 'comfortable communities' (27%, 3 – 'countryside communities, successful suburbs, steady neighbourhoods, comfortable seniors and starting out'). The mean score was 28.29, indicating a steady neighbourhood and more specifically, owner occupied terraces, with an average income (std. dev 17.02). 68% of students had a score between 11.27 – settled suburbia and 45.31 - comfortable communities. The mode was 11 (mature money) i.e., settled suburbia, older people. The median was 27 indicating a steady neighbourhood and suburban semis, conventional attitudes. Excluding category 6 'not private households', the category with the least amount was 2 'rising prosperity' (5%).

Parents Higher Education (First Generation students)

Out of 6077, 54% were first generation students (n3239), and 46% (n2772) were not. As widening participation has been such a big a part of the social and political agenda from both the government and universities in general, this variable forms part of the measure of student habitus where external structural factors could play a role in influencing decisions and how much educational capital a student will have when at university. As highlighted in the literature review, evidence shows that higher education students whose parents have attended university are more likely to progress and get higher attainment (Jury et al, 2017).

Proportion of participation in Higher Education (Polar4)

FIGURE 12: POLAR4 (PARTICIPATION IN HE)
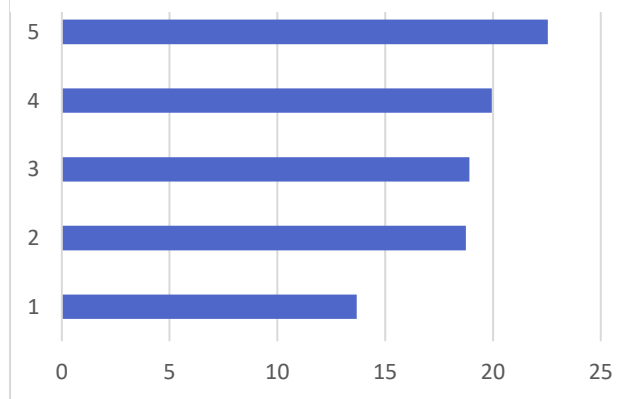
Polar4 is the proportion of young people entering higher education based on location. 'It looks at how likely young people are to participate in higher education across the UK and shows how this varies by area' (OFS, 2020, 5). This is connected to the theoretical concept of the effects of structures and in this case, neighbourhood characteristics. It is calculated by dividing the number of students participating in higher education by the number of young people in that postcode (OFS 2020). This ranged from 1 – 5, where the lower the score represented a lower Polar4 level. Out of 6438, the majority had a polar4 score of 5 (22%) indicating high participation areas. 14% had the lowest score of 1.

Cycle of Success - Tariff Points

The tariff points ranged from 12 – 216 for the whole cohort of 2014/16, the mean was 111.49 (std. dev 29.06) where the higher the number, the higher the tariff points. The median was 112, and the mode 96.

Agency: Self-Regulation (Level of engagement)

To explore Archer's concept of 'Morphogenesis', self-regulation was developed and measured by attendance and participation in extracurricular activities. Attendance is a student's overall

attendance for all three years, based on the programme's compulsory units (core units). This is in addition to extracurricular activities such as membership and/or committee of a society or sports club, registered volunteer, and course representative. Whilst there are other aspects of engagement not included in this study, these measures are included based on the data available, which captures the concept of self-regulation, as is not simply academic performance (Zimmerman, 2010).

Overall attendance

This measure is included in line with Archer's concept of morphogenesis. Whilst structural barriers would naturally have an impact on their level of attainment, Archer (2010) on the other hand, argues that whilst there are barriers, they can also be seen as drivers. By actively reflecting on what they may have experienced, they can choose to 'pay the cost' of making a change. Each action or decision has a cost, and for some this cost may be more challenging than others, but if the potential outcome was 'worth' the risk, they would take it. This included overall attendance and extra-curricular activities to measure self-regulation (level of engagement).

The attendance of core units for each year (Levels 4, 5 and 6) were added creating a range of 0 – 300 hours, where the higher the score represented a higher level of attendance. The mean was 36.39 (std. dev 40.44). There was a large number of missing (n4010, out of n6857 students). This was most likely due to the older administrative system, which did not record attendance accurately.

Extracurricular activities (level of engagement)

This is to measure a point of self-regulation, where multiple aspects of extracurricular activities have been combined. This variable is an index for 4 aspects of participation in ECA.

- Member of a student union sports club or society
- On the committee of a student union sports club or society
- Course representative at university
- Registered volunteer at university

It is important to note that there are other aspects to engagement, which are not included in the data. Due to limitations, these have been included to create the index to represent some level of engagement. By taking part in non-compulsory events, and activities, the student is exposed to more university culture or educational capital and allows the student to form

communities (Bathmaker et al, 2013; Ashwin and McVitty, 2015). Some students may see this as a necessary part of university, that a degree alone is not enough or may have the opposing view that diverting attention from core lessons would be a distraction. The combination of these factors will be analysed in model 3.

Each point of the index would give a score out of 4, where the higher the number, the higher level of participation in ECA. The mean was .23 (std. dev .54), and the majority was a score of zero (n5425, 79%). Out of 6661, 14% (n943) scored one. While this is not a perfect measure of ECA as there are many other elements such as placements, unofficial clubs, peer to peer and tutor to student relationships; it does provide a little data that can be explored. So while imperfect, they have been included based on what was available and provide a starting point to understand the effects of ECA and engagement on higher educational attainment.

Gender, Ethnicity and Final award

TABLE 6: ETHNICITY AND FINAL AWARD

		First class	Upper second	Lower second	Third/Pass
Male	Asian	17.2%	37.4%	31.3%	14.1%
	Black	14.8%	24.1%	44.4%	16.7%
	White	31%	41.1%	21.6%	6.4%
Female	Asian	15.1%	42.6%	28.6%	13.8%
	Black	13%	42.2%	29.2%	15.1%
	White	30.9%	47.5%	17.6%	4.1%

Table 6 demonstrates the breakdown of each award with gender and ethnic background. White students on average achieve higher awards – both first (white male - 31%, white female - 31%) and upper second class (white male - 41%, white female - 47%). Black students on average achieve lower second class (black male - 44%, black female - 29%) and third-class awards (black male - 16.7%, black female - 15.1%). This is consistent with the national average, where in the graduating year of 2016/17, the majority of Asian students achieved a second-class degree (upper second - 48% and lower second – 25%, n=32,915). The majority of Black students also achieved a second-class degree (upper second – 43%, lower second – 34%, n=20,480) and 51% of White students achieved an upper second-class degree, followed by 29% achieving a first-class degree (n=249,320). These national data compiled by HESA (2020) further shows that although there are similarities between the award levels of Black and Asian students in regard to highest award achieved, there is a large difference in the number of students achieving a first-class degree (Black students – 12% and Asian students – 21%).

FIGURE 13: FEMALE – ETHNICITY AND DEGREE CLASSIFICATION
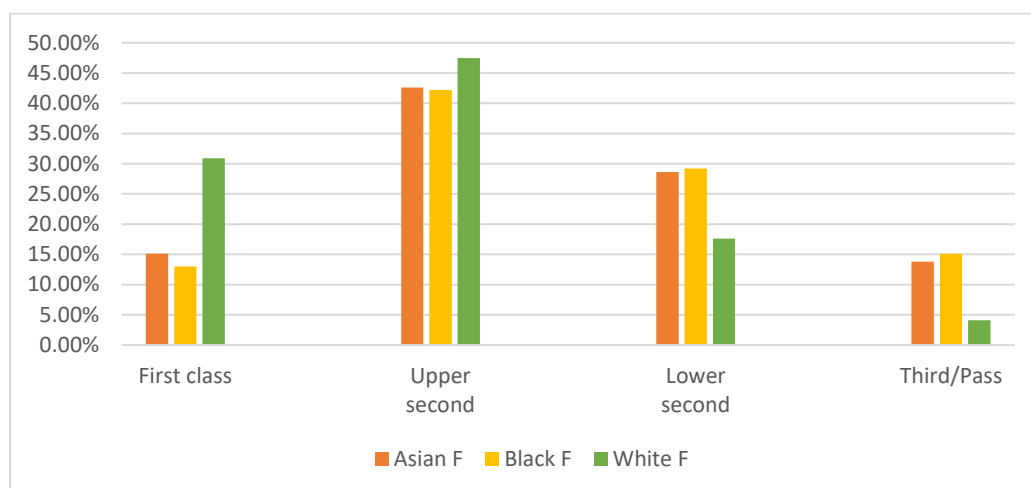
FIGURE 14: MALE – ETHNICITY AND DEGREE CLASSIFICATION
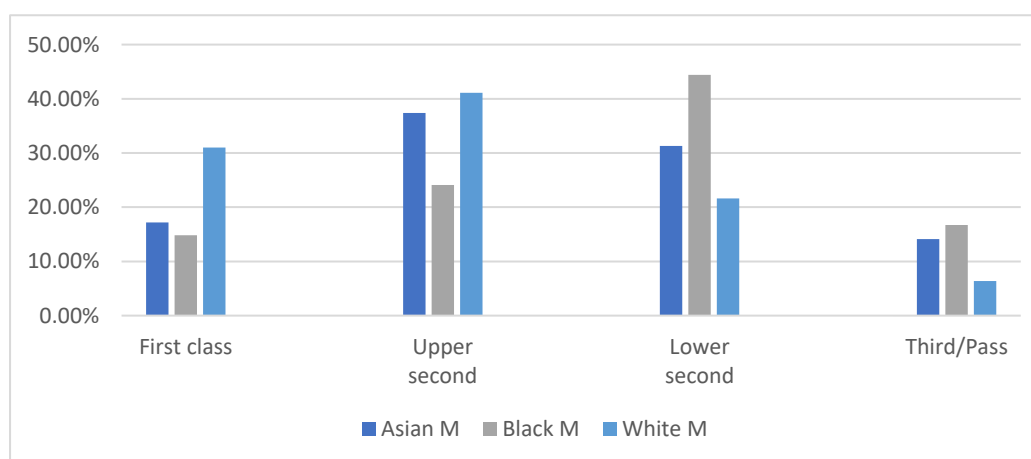
Figures 13 and 14 presents this information visually – which shows that generally Asian and black females have similar patterns in their level of award (Figure 13), whereas Asian and black males are different where Asian males achieve higher awards (Figure 14).

Gender, Ethnicity, and influential factors

TABLE 7: CROSSTABS OF ALL VARIABLES WITH GENDER AND ETHNICITY

		First gen	Acorn	Tariff points	SEC	Polar	Income	Att.	ECA
Male	**Asian**	78%	35.4	110.57	5.33	3.07	£10,841	63.8	.15
	Black	34%	41.65	105.88	4.92	2.55	£13,033	61.81	.21
	White	50%	25.16	108.22	4.21	3.28	£24,031	61.85	.23
Female	**Asian**	75%	35.06	110.39	5.38	3.13	£11,127	66.69	.25
	Black	39%	41.66	105.59	5.08	2.48	£13,754	63.17	.31
	White	54%	25.73	115.06	4.24	3.27	£24,355	62.86	.23

Table 7 looks at the percentage and average for each of variable with gender and ethnicity. This is important as the experiences of a black male is going to be vastly different to an Asian female student for instance. Therefore, this table shows a breakdown of each aspect of a student's background, family and neighbourhood characteristics and self-regulatory behaviour at university. Table 7 demonstrates that Asian students are largely first-generation students (Asian male - 78%, Asian female – 75%), indicating their parents have not completed a higher education. The acorn score (neighbourhood affluence) shows that black students on average have a score of 42, indicating that the neighbourhood is 'financially stretched' and specifically 'struggling young families in post-war families' (CACI, 2019). When looking at the socioeconomic classification marker, the table demonstrates that Asian students on average have a score of 5, indicating 'lower supervisory and technical occupations (ONS, 2020 - the higher the score, the lower the SEC). Furthermore, on average, Asian students have the lowest household income (male - £10841.13, female - £11127.64). White students have the highest mean income (approximately £24,000).

Whilst Black students have the lowest average of tariff points on entry to university (male – 105.88, female – 105.59), all of the means are very similar, with white females having the highest mean (115.06). On average, Asian students have the highest attendance; however, all of the means are similar. The range is 4.88 (lowest attendance 62 and highest 67). When looking at the average score for extracurricular activities, Asian males had the lowest engagement score (.15), and black females, the highest (.31).

Multivariate Analysis

This section demonstrates the results of the three statistical models, which build on each other based on the morphogenetic cycle (Archer 2010), the bioecological systems of development and habitus (Bronfenbrenner 1995 and Bourdieu 1986) as well as the effects of self-regulation (Zimmerman, 1995) on the level of attainment.

Model 1 - represented the student's demographic characteristics, the nucleus of each individual student such as age, gender and ethnicity. This was to explore the differences in these core characteristics.

Model 2 - represented habitus, and structural conditioning, for instance, the exosystem as described by Bronfenbrenner (1995). The combined effects of the micro and mesosystems on the individual. This included parents' socio-economic status, household income, acorn type etc. This was to explore the effects of structural factors on level of attainment

Model 3 – represented the possible impact of self-regulation (Zimmerman, 1995) i.e., the macro system (Bronfenbrenner 1995) – university culture and educational capital and stage 3 of Archer's (2010) morphogenesis cycle: - structural elaboration). Therefore, whilst habitus is not fixed or permanent (Bourdieu, 1986, Reay), however, the burden of change leaves many at a disadvantage and structural barriers would naturally have an impact on their level of attainment. Archer (2010) on the other hand argues that whilst there are barriers, they can also be drivers. Both structure and agency have an influence on the individual as well as society in general, however Archer argues the detriment of conflating the role of either aspect (Archer, 2010). For instance, whilst it may be difficult to change the situation an individual is in, with the appropriate support, it is not impossible. Archer (2010) states that by actively reflecting on what they may have experienced, people can do a cost benefit analysis of their life and life chances. People can choose to 'pay the cost' of making a change. Every action or decision has a cost, and that cost may mean a more challenging process, but people take risks when the potential outcomes are 'worth it'. This model included overall attendance and extra-curricular activities to measure self-regulation (level of participation).

Influence of demographic characteristics on final award

Model 1 directly relates to research objective 1 – to identify the patterns of demographic factors as predictors, such as structural barriers in attainment between students of different ethnicities. The model fit and goodness of fit test demonstrated that the sample is a good fit (Crowson, 2019). A generalised linear model - ordinal logistic regression test was conducted with the dependent variable of final award and predictor variables of age, gender, and ethnicity to explore the differences in attainment based on these factors.

Null Hypothesis: There will not be a relationship between sociodemographic factors (age, ethnicity, gender) and final award

Research Hypothesis: There will be a relationship between sociodemographic factors (age, ethnicity, gender) and final award

TABLE 8: RESULTS OF MODEL 1: INFLUENCE OF DEMOGRAPHIC CHARACTERISTICS ON FINAL AWARD

| Parameter | Parameter Estimates | | | | | |
| | Hypothesis Test | | | 95% Wald confidence interval for Exp(B) | | |
	Wald Chi-Square	Df	Sig	Exp(B)	Lower	Upper
Third Class/ Pass (3rd)	635.132	1	.000	.043	.034	.055
Second Class Lower (2.2)	148.529	1	.000	.244	.194	.306
Second Class upper (2.1)	21.114	1	.000	1.692	1.352	2.118
Ethnicity (Asian)	191.705	1	.000	.405	.356	.460
Ethnicity (Black)	106.593	1	.000	.319	.257	.396
Ethnicity (White)	.	.	.	.	.	.
Gender (Male)	9.173	1	.002	.863	.785	.949
Gender (Female)	.	.	.	.	.	.
Age on commencement	3.839	1	.050	.990	.979	1.000

Final Award - First class (1st) is the reference category

Interpretations of model 1: Influence of demographic characteristics on final award

Gender *is a significant negative predictor of final award (p= .002). The odds ratio indicates that there is a decreasing probability (.863) of male students achieving a higher final award. On average, the log odds of achieving a higher final award is 13% lower for males.*

Asian ethnic background *is a significant negative predictor of final award (p= .000). The odds ratio indicates that there is decreasing probability (.405) of an Asian student achieving a higher final award. On average, the log odds of getting a higher final award is 60% lower for those who are Asian than those who are white.*

Black ethnic background *is a significant negative predictor of final award (p= .000). The odds ratio indicates that there is decreasing probability (.319) of a Black student achieving a higher final award. On average, the log odds of getting a higher final award is 68% lower for those who are black than those who are white.*

Age on commencement *is a marginally non-significant predictor of final award (p = .050).*

The results of model 1 demonstrate that we can reject the null hypotheses for gender and ethnicity; and fail to reject the null hypothesis for age on commencement.

Influence of Family and neighbourhood circumstances on final award

Model 2 relates to the research question – 'to what extent do structures influence student attainment'? The model fit and goodness of fit test demonstrated that the sample is a good fit. A generalised liner model - ordinal logistic regression was conducted with the dependent variable of Final Award and predictor variables of *Age, Gender, and Ethnicity*. With an addition of *socioeconomic status, neighbourhood affluence - Acorn, Polar4, Tariff Points, first generation student and Household Income* to explore the difference in attainment based on these factors, and if the original individual characteristic variables change based on the introduction of these variables. The additional variables represent family circumstances, neighbourhood characteristics, and structural conditioning.

Null Hypothesis: There will not be a relationship between family/neighbourhood circumstances (socioeconomic status, neighbourhood affluence, Poloar4, tariff points, first generation student and household income) and final award when controlling the effects of sociodemographic factors (age, ethnicity, gender).

Research Hypothesis: There will be a relationship between family/neighbourhood circumstancse (socioeconomic status, neighbourhood affluence, Polar4, tariff points, first generation student and household income) and final award when controlling the effects of sociodemographic factors (age, ethnicity, gender).

TABLE 9: MODEL 2 RESULTS: INFLUENCE OF FAMILY AND NEIGHBOURHOOD CIRCUMSTANCES ON FINAL AWARD

Parameter	Parameter Estimates					
	Hypothesis Test			95% Wald confidence interval for Exp(B)		
	Wald Chi-Square	Df	Sig	Exp(B)	Lower	Upper
Third Class/ Pass (3rd)	37.365	1	.000	.100	.054	.223
Second Class Lower (2.2)	.460	1	.498	.786	.393	1.575
Second Class upper (2.1)	26.453	1	.000	6.233	3.104	12.518
Ethnicity (Asian)	39.843	1	.000	.573	.482	.681
Ethnicity (Black)	29.880	1	.000	.430	.317	.582
Ethnicity (White)	.	.	.	1	.	.
Gender (Male)	9.159	1	.002	.815	.714	.930
Gender (Female)	.	.	.	1	.	.
Age on commencement	6.716	1	.010	1.036	1.009	1.065
First Generation student (Parent HE - No)	.466	1	.495	1.050	.912	1.210
First Generation student (Parent HE – Yes)	.	.	.	1	.	.
Socioeconomic Status (NS-SEC)	1.703	1	.192	.982	.955	1.009
Neighbourhood affluence (Acorn Type)	4.870	1	.027	.995	.990	.999
Household Income	7.663	1	.006	1.000	1.000	1.000
Area HE participation (Polar4)	1.307	1	.253	1.032	.978	1.090
Cycle of Success (Tariff points)	7.031	1	.008	1.003	1.001	1.005

Interpretations of model 2: Influence of Family and neighbourhood circumstances on final award

Gender is a significant negative predictor of final award (p= .002). The odds ratio indicates that there is decreasing probability (.815) of male students achieving a higher final award. On average, the log odds of achieving a higher final award is 18% lower for males.

Asian ethnic background is a significant negative predictor of final award (p= .000). The odds ratio indicates that there is decreasing probability (.573) of an Asian student achieving a higher final award. On average, the log odds of getting a higher final award is 43% lower for those who are Asian than White students.

Black ethnic background *is a significant negative predictor of final award (p= .000).. The odds ratio indicates that there is decreasing probability (.431) of a Black student achieving a higher final award. On average, the log odds of getting a higher final award is 57% lower for those who are black than White students.*

Age on commencement *is a significant positive predictor of final award (p = .010). The odds ratio indicates that there is increasing probability (1.037) of achieving a higher final award. On average, for each increase in years, there is a predicted increase of 1.036 in the log odds of achieving a higher final award.*

Household income *is a significant positive predictor of final award (p= .006). The odds ratio indicates that there is increasing probability (1.000) of achieving a higher final award. On average, for each increase in £ of household income, there is a predicted increase of 1.000 in the log odds of achieving a higher final award.*

Acorn type (neighbourhood affluence) *is a significant negative predictor of final award (p= .027).. The odds ratio indicates that there is decreasing probability (.995) of achieving higher final award. i.e, less affluent areas = higher on scale. Therefore, those from less affluent areas are less likely to get a higher final award. On average, for each increase in point, there is a predicted decrease of -.005 in the log odds of achieving higher final award*

Tariff points *is a significant positive predictor of final award (p= .008). The odds ratio indicates that there is increasing probability (1.003) of achieving higher final award. On average, for each increase in point, there is a predicted increase of 1.003 in the log odds of achieving a higher final award.*

Parental Higher Education (first generation student) *(p= .495),* ***Socio-economic Class*** *(p= .192) and* ***Polar4*** *(p= .253) are non-significant predictors of final award.*

The results of model 2 demonstrate that we can reject the null hypotheses for gender, ethnicity, age, household income, neighbourhood affluence and tariff points; and fail to reject the null hypothesis for parental higher education (first generation student), socioeconomic class and polar4.

Combined effects of demographics, family/neighbourhood characteristics and self-regulation on final award

Model 3 relates to the research question – 'How much of an effect do self-regulatory factors have on final award obtained?' The model fit and goodness of fit test demonstrated that the sample is a good fit. A generalised linear model - ordinal logistic regression was conducted

with the outcome variable of Final Award and predictor variables of *Age, Gender, and Ethnicity*. With an addition of *socioeconomic status, neighbourhood affluence - Acorn, Polar4, Tariff Points, Household Income*, *first generation student*, as well as *Overall Attendance, and self-regulation (level of engagement)* to explore the effects of individual level of participation.

Null Hypothesis: There will not be a relationship between self regaulatory factors (overall attendance, level of engagement in exctracuricular activities), family/neighbourhood circumstances (socioeconomic status, neighbourhood affluence, Poloar4, tariff points, first generation student and household income) and final award when controlling the effects of sociodemographic factors (age, ethnicity, gender).

Research Hypothesis: There will be a relationship between self regaulatory factors (overall attendance, level of engagement in exctracuricular activities), family/neighbourhood circumstances (socioeconomic status, neighbourhood affluence, Poloar4, tariff points, first generation student and household income) and final award when controlling the effects of sociodemographic factors (age, ethnicity, gender).

TABLE 10: MODEL 3 RESULTS: COMBINED EFFECTS OF DEMOGRAPHICS, FAMILY/NEIGHBOURHOOD CHARACTERISTICS AND SELF-REGULATION ON FINAL AWARD

	Parameter Estimates					
	Hypothesis Test			**95% Wald confidence interval for Exp(B)**		
Parameter	**Wald Chi-Square**	**Df**	**Sig**	**Exp(B)**	**Lower**	**Upper**
Third Class/ Pass (3rd)	10.689	1	.001	.124	.035	.433
Second Class Lower (2.2)	.006	1	.937	.952	.277	3.273
Second Class upper (2.1)	11.980	1	.001	8.960	2.588	31.014
Ethnicity (Asian)	15.914	1	.000	.583	.448	.760
Ethnicity (Black)	18.791	1	.000	.390	.255	.597
Ethnicity (White)	.	.	.	.	.	.
Gender (Male)	3.726	1	.054	.824	.677	1.003
Gender (Female)	.	.	.	.	.	.
Age on commencement	3.755	1	.053	1.053	.999	1.110
First Generation student (Parent HE - No)	.157	1	.692	.957	.772	1.187
First Generation student (Parent HE – Yes)	.	.	.	.	.	.
Socioeconomic Status (NS-SEC)	2.849	1	.091	.965	.925	1.006
Neighbourhood affluence (Acorn Type)	2.526	1	.112	.994	.654	1.001
Household Income	.563	1	.453	1.000	1.000	1.000
Area HE participation (Polar4)	.009	1	.924	.996	.919	1.080
Cycle of Success (Tariff points)	1.282	1	.258	1.002	.999	1.005
Overall attendance	5.673	1	.017	1.003	1.001	1.006
Self-Regulation (level of participation)	5.965	1	.015	1.219	1.040	1.429

Interpretations of model 3: Combined effects of demographics, family/neighbourhood characteristics and self-regulation on final award

Asian ethnic background is a significant negative predictor of final award (p= .000). The odds ratio indicates that there is decreasing probability (.583) of an Asian student achieving a higher final award. On average, the log odds of getting a higher final award is 41% lower for those who are Asian than those who are white.

Black ethnic background is a significant negative predictor of final award (p= .000). The odds ratio indicates that there is decreasing probability (.390) of a Black student achieving a higher final award. On average, the log odds of getting a higher final award is 61% lower for those who are black than those who are white.

Overall attendance is a significant positive predictor of final award (p=.017). On average, the log odds of getting a higher final award increases by 1.003 for each unit increase in attendance. Therefore, those with higher attendance are more likely to achieve a higher final award.

Level of engagement (ECA) is significant positive predictor of final award (p=.015). On average, the log odds of getting a higher final award increases by 1.219 for each unit increase in participation. Therefore, those with higher levels of participation are more likely to achieve a higher final award.

Gender and age are marginal non-significant predictors of final award (p=.054 and p=.053)

NS-SEC, Acorn type, Polar4, household income, tariff points and being first generation students were non-significant predictors of final award.

The results of model 3 demonstrate that we can reject the null hypotheses for ethnicity, overall attendance, and engagement in extracurricular activities; and fail to reject the null hypothesis for gender, age, socioeconomic status, neighbourhood affluence, household income, tariff points and parental higher education (first generation student).

Model summaries

Summary of model 1: Influence of demographic characteristics on final award

Gender (p= .002), Black and Asian ethnicities are significant predictors of final award (p = .002 and .000 respectively). Age (with the p-value of 0.05) has missed marginally to be a statistically significant influence on students' final award classification. The results also showed that males

were 14% less likely to achieve a higher final award (first-class) than female students, Asian students were 60% less likely to achieve a higher award than White students and Black students were 68% less likely to achieve a higher award than White students were.

Summary of model 2: Influence of Family and neighbourhood circumstances on final award

Model 2 demonstrates that ***Gender (p=.002), Asian ethnic background (p=.000), Black ethnic background (p=.000)*** remains significant predictors of the final award*. **Age (p=.010), neighbourhood affluence (p= .027) Household income (p= .006), and Tariff points (p= .008)*** were significant predictors of Final award. Parental higher education (first-generation student), socioeconomic status and Polar4 were not significant predictors.

Gender and ethnic background remained consistent, whilst age changed significantly. When the structural factors were included, male students were 18% less likely to achieve a higher final award in comparison to female students. Asian students were 43% less likely to achiever a higher final award than White students were, and Black students were 57% less likely to achieve a higher final award than White students were.

Tariff points being a significant predictor could be due to the cycle of success, having previously done well in education, they had the skills to study well and get good grades. They may have already confidence in themselves, and this allowed them to navigate higher education better too (Bandura and Locke, 2003). Household income and acorn type being significant predictors demonstrate that family circumstance does have an impact. For instance, when looking at neighbourhood affluence (acorn type), on average, for each unit increase in acorn points, there is a 0.005 increase in the likelihood of achieving a higher final award (lower number = higher affluence). Demonstrating that the more affluent the neighbourhood, the higher likelihood of achieving a higher final award, highlighting the influences of structural-cultural conditioning.

To reiterate, family circumstances have a clear influence on attainment as suggested in the literature review (Slomp et al, 2018, Raffo et al, 2010), that students from less affluent neighbourhoods are less likely to engage with extracurricular university culture and this has been shown to impact on their attainment level. Here, the findings from this research also suggest those students from less affluent households, and/or neighbourhoods, perform less well.

Summary of model 3: Combined effects of demographics, family/neighbourhood characteristics and self-regulation on final award (models 1, 2 and 3)

Model 3 demonstrates that *ethnic background (Asian, p= .000 and Black, p= .000)* remained significant predictors of the final award. Overall attendance (p= .017) and self-regulation (p= .015) were significant positive predictors of final award. All the neighbourhood and family characteristics predictors became non-significant predictors of final award (*Socioeconomic status, neighbourhood affluence, Polar4, Tariff Points, Household Income*, and *first-generation student*).

There are 2 key points to consider here: *(1) Ethnic background* consistently remained as significant predictors of the final award and more specifically, Asian and Black students have a decreasing likelihood of achieving a first-class final award than their White counterparts were (Asian students 41% less likely; Black students 61% less likely which is higher in model 2). This is still the case, even after taking into consideration the effects of *(2) Self-regulation* (level of engagement). The overall results demonstrate that whilst initially, family and neighbourhood characteristics have an impact on the level of attainment (models 1 and 2), and this must be addressed at all levels in higher education; ultimately however, individual actions at university in regard to attendance and participating in extra-curricular activities allows the opportunity for the effects of structural barriers to be reduced and can leave space for a more positive outcome – i.e. a higher final award classification. This demonstrates that when self-regulatory behaviour and participation in extracurricular activities increases, these actions have more influence than the structural barriers that students may have had to overcome. Whilst these structural factors are important and influence to a certain extent, there is the possibility to improve the level of attainment for students from B.A.M.E communities with the right support from institutions, faculty, and educational policies (Arday 2018, Miller 2019, Wong and Chiu, 2019). This is in line with Archer's morphogenetic cycle, that whilst initially there is structural conditioning or habitus based on the surrounding structures, an individual can equally change their situation. With the right help and support, students can make decisions to exercise their agency by the interactions they have with their peers and tutors, their connection to the university and programme can ultimately lead to transformation or morphogenesis (structural-cultural elaboration).

Chapter 7: Discussion

This chapter focuses on exploring the results to answer the overarching research question 'what factors have an influence on students' final award?', why an award gap exists despite the success of the widening participation agenda, and what effect does self-regulatory behaviour have on final award obtained. This chapter begins with a summary of the results, including a summary of the cohort information, key findings, and a summary of the theoretical framework. This is followed by a discussion of the findings; the overall themes identified from the analysis and provides evidence of an award gap. It also demonstrates the importance of students feeling connected to university and having a sense of belonging. Furthermore, the importance of institutional habitus and confidence for non-traditional students.

Key findings

- There is a significant award gap between Asian and Black students in comparison to White students. Asian students have a 41% lower likelihood of achieving a first-class award in comparison to white students. Black students have a 61% lower likelihood of achieving a first-class award in comparison to white students. This award gap remained consistent throughout each stage of the three statistical models when different factors were introduced.

- Overall attendance and participation in extracurricular activities had a significant impact on award attained. The likelihood changed from 60% less likely to be awarded a higher award to 41% for Asian students but did not change for Black students (61% likely to be awarded a higher award), when combining the socioeconomic factors and self-regulatory factors.

- Structural conditioning, such as familial habitus and institutional habitus has some impact on award obtained. This included household income, neighbourhood affluence (acorn score), and tariff points, which could explain some of the differences in participation of extracurricular activities by different groups.

Cohort demographic information:

The cohort in this study is the graduating cohort of 2016/17 from Manchester Metropolitan University. The sample included 6857 undergraduate students from all faculties and programmes, of which 59% were female and 41% male, ranging from ages 17 years old to 67 years old. Most students were from a White ethnic background (79%), followed by Asian (16%)

and Black (5%). 54% of students were first generation students from various socioeconomic classifications and level of affluence.

Theoretical context – a summary

The following is a summary of the theoretical framework to provide context to the results. The key theories used to investigate the award gap includes Archer's morphogenetic approach (1995, 2003, 2010), Bourdieu's habitus (1977, 1984) and Bronfenbrenner's bioecological model (1979, 1989, 2005). The three concepts work well together to balance agency and individual action, whilst not disregarding the effects of structures, and how they can disproportionately constrain or support any given student. The morphogenetic approach allows us to view the complexity of the influence of structural conditioning and agential action and the effects of these two crucial aspects of society in a combined study. For instance, whilst there is much on the effects of socioeconomic factors, demographic factors, and self-regulatory behaviour on outcomes individually; this study examines this and their combined influences. An interplay between these different aspects is a key characteristic of how Archer (2010) explains the connection between structure-culture and agency (See figure 14: the morphogenetic cycle explained, designed by the researcher to explain the concept in relation to the current research). They are not individual entities but rather intertwined with continuing influence over each other (Knio, 2018; Brock et al, 2019). The morphogenetic approach (Archer 2010) goes a long way to explain and understand the connection between these aspects without conflating the role of either aspect. Therefore, this research examines the influences of these different aspects by building on each model.

FIGURE 15: THE MORPHOGENETIC APPROACH –A CONTINUOUS CYCLE
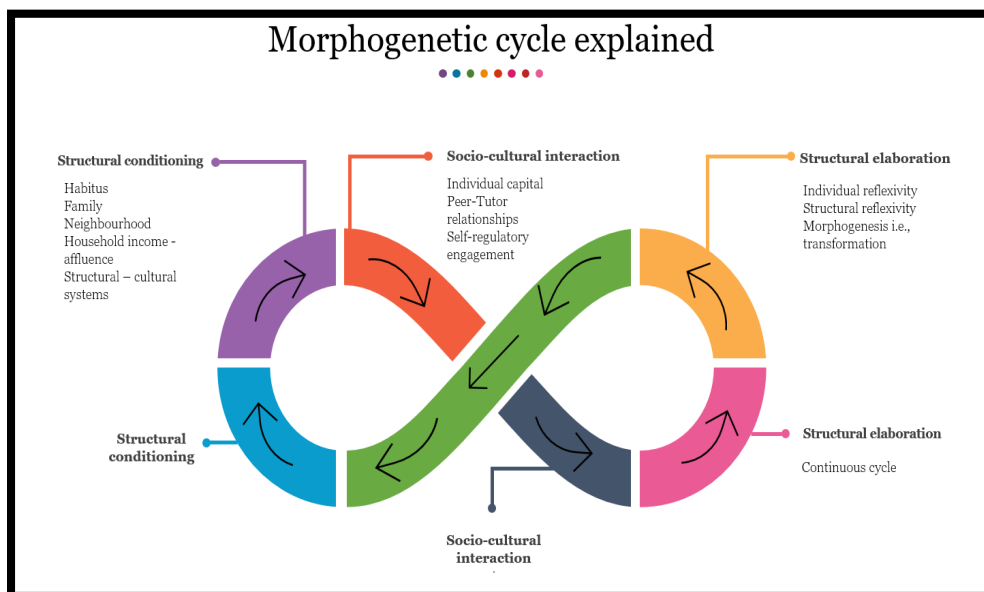
Figure 15 is a diagram the researcher designed to help explain the complexity of the morphogenetic cycle and helps to explain the effects of structure on agency, and agency on structure. This also in line with Bronfenbrenner's concept of bioecological systems where each structure in society influences the individual in their experiences, and by extension decision-making. For instance, figure 16 demonstrates how model 1 included the nucleus of this systematic process, such as the demographic characteristics – age, gender, and ethnic background. Model 2 built on model 1 with the inclusion of structural factors – neighbourhood and family affluence, socioeconomic status, polar4 and previous experiences in an academic setting – measured by tariff points. Agency was represented by model 3, which built on model 2, including attendance and participation in extracurricular activities.

FIGURE 16: THE ADAPTED BIOECOLOGICAL MODEL WITH EXAMPLES
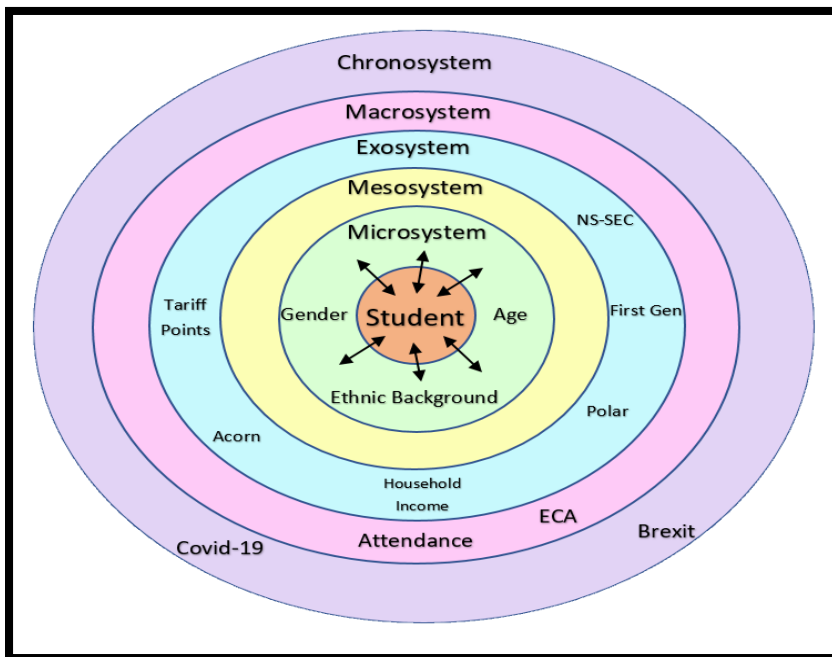
Higher education and non-traditional students

Widening participation in higher education aimed to increase the number of non-traditional students enrolling at university (Clark, 2022). The introduction of post-92 institutions (modern universities) was largely a move to include students from a variety of backgrounds rather than simply the white middle class. This has been the focus for many years in both the higher education sector as well as from governmental policies itself such as the Robbins report (1963), and Dearing report (1997). The aims of widening participation have developed over

the years too, from a more general point of view to institutions having their schemes, incentives, and programmes in addition to the governmental policies. This has been successful to a certain extent. Data from the HESA (2022) shows a steady increase in the number of students enrolled at university (from a total number of 349,540 students in 2016/17 to 367,540 in 2020/21), and whilst this is an improvement, there is still an award gap between those who are more socially advantaged and those less so. For instance, the current research is consistent with the data from the national average (HESA, 2022), which shows that in 2016/17, 27% of all white students obtained a first-class degree, 19% of all Asian students, and 11% of Black students. This has improved in most recent data, in 2020/21, 38% of white students obtained a first-class degree, 31% of Asian students, and 19% of Black students obtained a first-class degree.

Exploring this award gap using Archer's (2010) structure and agency ideas shows that this could be an institutional bias that works to the favour of the privileged group who in this instance is likely to be White middle-class A-level route students. For instance, is it the curriculum itself that is the issue or also that often students enter higher education with different familial habitus which has a further impact on their attainment? For typical students from traditional backgrounds such as the white middle class, possess higher levels of cultural, economic, social, and institutional habitus and are also better placed to mobilise that capital (Bourdieu, 1977; Tinto, 1993; McDonough, 1997; Reay, 1998; Reay 2010). This also includes students who have linearly progressed in the education system, from primary school to college/sixth form as well as those who have parents and/or family who have completed a higher education previously and can pass on subtle forms of institutional habitus to the next generation (Bourdiue, 1977). Their experience may include having the support with navigating the university, the expectations, form filling and knowing what they are entitled to during their undergraduate career. However, students who may not have this advantage, through no fault of their own, will have to learn these seemingly non-academic related processes themselves.

This is not to say that students from non-traditional backgrounds are not supported, but rather that their experiences differ from those who are from a privileged background, which affects how they mobilise the capital they have. For instance, even when aware that there are certain expectations such as attending lectures and seminars, it may not extend to understanding the importance in learning experiences beyond the classroom. It then becomes clear that they not been provided with the correct equipment needed to reduce the gap in their institutional habitus. Therefore, to expect students to perform at the same level as those who have all the unwritten rules, correct equipment, and a relatively smooth playing field is unfair to disregard these advantages especially as experiences at university have a continuing influence beyond

graduation; on their quality of life (Schunk and Parajes, 2002). For those who do have a higher level of institutional habitus, and do perhaps get involved with extra-curricular activities, this can make a difference. The evidence from the current study demonstrates that white students have higher levels of participation in extracurricular activities, Asian students significantly lower than their white counterparts but higher than black students.

This is why this research answers the question of whether these findings are consistent with other studies, why this gap is happening and how we can close this gap. The current research echoes that of the national statistics collected by HESA (2022), demonstrating that there is a significant difference between different ethnic groups' probability and the likelihood of achieving a higher final award. **Asian**[6] students in particular have a **41%** lower likelihood of achieving higher award in comparison to white students and **Black** students have a **61%** lower likelihood of achieving higher award in comparison to white students. To close this gap, we must consider what advantages the average White middle-class student has that a student of colour does not, such as being from the dominant group i.e., white privilege – 'an invisible package of unearned assets' (McIntosh, 1989:10). The award gap between different ethnic groups has persisted for many years (Richardson, 2015), and the current research explores why this might be happening. It is crucial to mention here that ethnic background itself is not the cause of effect but rather there are other factors in play (Arday, 2018). When investigating the difference in award gap, the confounding variables are not always easily identified but models 2 and 3 in this research addresses this. Model 2 in particular looks at the influence of structural factors on final award obtained, which includes affluence; socioeconomic classification etc. model 3, in addition to the aspects explored in model 2 also examines the effects of attendance and participation in extracurricular activities.

Model 1 demonstrated that Asian students were 60% less likely to get a higher award than white students, with the introduction of structural factors in model 2, this changed to 43% and with the introduction of participation/engagement in model 3, this changed to 41%. For Black students it went from 61% lower likelihood of being awarded a higher final award, to 57% and then back to 61%. Demonstrating the influence of the different factors on final award obtained. For instance, model 2 saw the introduction of socioeconomic status, neighbourhood affluence, and family affluence as well as entry qualifications in the form of tariff points. Model 3 included

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[6] Whilst not appropriate to group different students from different ethnic backgrounds together, the data in the current research was limited to this type of grouping where All Asian backgrounds were grouped together, All Black backgrounds and All White backgrounds. Ideally, if the data had permitted, these would have been split further into individual categories.

aspects of participation in the form of attendance and participation in extracurricular activities. The effects of these will be discussed further in the chapter.

Students of Colour and the Award Gap

To explore the barriers that students of colour may be facing, the term BAME (Black, Asian, and other Minority Ethnic) must first be examined. It is extremely problematic to assume that all the different ethnic groups within racially minoritized communities have the same problems, experiences, and barriers (Sharkey, 2021). Even terminology that tries to be inclusive can add to the structural barriers an individual may face daily. The origin of the term dates back to the 1960's when the political 'black' included all non-white people (Ner & Gooden, 2021), then in 1970's, it became BME (Black and Minority Ethnic) became BAME due to the growing numbers of Asian people in the UK and a bid for anti-racist sentiment (ibid). The only thing people from 'BAME' communities have in common is that they are not white (Luxon, 2020). People of Colour has become more and more popular since the way 'BAME' was used during the Covid-19 pandemic and the growing awareness and shift in racist rhetoric after the rise of the BLM movement after George Floyds death (Sharkey, 2021). This is similar to the experiences of people from LGBTQ+ communities. Individually a gay man will have a completely different experience of life, prejudices, and discrimination than a lesbian, or a transgender person and so on. It is wildly inappropriate to assume that they are all the same; however, everyone that is not heterosexual is grouped together. In essence, just as the LGBTQ+ label, the BAME label does little to resolve the tensions that exist when creating sub-groups of people. The label means well but it has to be questioned if it smooths the edges of difference to such an extent that the label itself becomes meaningless?

In the same vein, everyone that is not White is often grouped together and this is part of the problem. How can this award gap begin to be addressed, not just on the surface tick-box style, but also truly from the roots if the different barriers and experiences are not even acknowledged? In the current research, whilst not ideal, 'BAME' communities have been broken down as much as possible (all Black backgrounds, all Asian backgrounds rather than just White or 'BAME') to honour this difference in experiences. So, in terms of the numbers of students in this cohort and other cohorts (data from HESA), the first issue is participation. Again, although numbers have increased, there is still a large gap. Perhaps this change can come after non-traditional, or students of colour are supported to demonstrate patterns of success, where they are represented better in both student numbers and staff positions. Is it possible that students will have more of an incentive to attend and excel at university if there were more people like them in higher positions or on the staff/tutors that teach them? Peers

as well as 'role model's' (UniversitiesUK & NUS, 2019). For instance, previous research has shown that there is a consistent poor representation of people of colour in institutional and leadership positions (Stevenson et al, 2019; ECU, 2016; Miller 2016; Bhopal 2019). This lack of representation can have many repercussions such as students not being able to see themselves in the curriculum, or feeling disconnected from their peers, course, and tutors (Stevenson et al, 2019; Ross et al, 2018). This will aid in enabling students to aim high, not just in grades but more generally too. Much of the time students may feel simply attending university itself is the achievement (Wong & Chiu, 2019). For instance, it can be commonplace to accept the status quo and therefore mediocrity and be 'content' with it.

This can often be the case for non-traditional students, as they may feel they need to renegotiate their identity from general perceptions and broader social patterns, and this may not happen immediately (Wong & chiu, 2019, Gee 2000, King, 2011, Reay et al 2010). For some, this process may not happen at all. Even the high achieving non-traditional student (HANT) will be a small minority within a minority. HANT students experience more struggles and challenges than their counterparts do, at all stages; before, during and after graduation (Wong & Chiu, 2019). Whilst some students will deviate from what they think is good enough for people like them (ibid.), it would be morally deplorable to accept this as commonplace and therefore not something that needs to change or real action, not superficial to take place. Furthermore, there may be instances of family perhaps pulling students from racially minoritized communities (or other non-traditional students) in different directions; where students try to uphold cultural traditions whilst balancing their multiple identities, to try and fit in (Frings et al, 2020; Shaw, 2013). For many students this can be in the form of commuting is a compromise they may make to attend university and stay close to the family to avoid 'losing themselves'. The sense of belonging and community can be increased by living closer to campus, as student identity is often connected to whether they live at home, off campus, or university accommodation (Reay, 2010).

Language may also be a factor, where the mother tongue may be encouraged to be spoken at home (Shaw, 2013), rather than English which could have a negative effect on feeling connected to the English-speaking student body as well as on their academic writing. This could have a similar effect as students from less affluent neighbourhoods where spoken English may be less grammatically correct and therefore may also have a negative effect on academic writing. Therefore, it cannot simply be a lack of motivation or desire for some students (Bowers-Brown et al, 2019). To empower more non-traditional students to become high achieving, it should be imperative for policy, faculty, intuitions, and pedagogy to address this, to help students develop their self-identity from accepting the status quo, to presenting and acting to be the identity they aspire to be and recognised for without losing their authentic

selves (Gee, 2000; Wong and Chiu 2019). Policy at both university and governmental level could help with this, to provide funding for incentives that could benefit students positively such as additional needs support. Similarly, to how students with other additional needs are supported with specific learning difficulties for instance. Furthermore, maybe the assessments process could be evaluated in terms of marking criteria, where anonymised marking as it can help towards reducing some unconscious bias and reduce assessment anxiety for students (Steele, 1992, 1997). This can be the change institutions can implement, as self-identity is a fluid process and changes over time. Furthermore, by increasing student confidence, it may mean that students are more inclined to take up offers of support, especially in terms of the academic writing workshops that are available for students.

The effects of structural conditioning

Different aspects relating to familial habitus, neighbourhood and family affluence, and structural systems were included to explore the effects of structural conditioning and how they can be beneficial or disadvantageous for student attainment. How much of an effect does having a lower income have? How much influence can parents/family have on their children that has a continued effect on their final award obtained in higher education? Even accounting for differences in have privileged backgrounds, do students of colour experience more barriers than their White counterparts do? As the results demonstrate, there is a significant connection between family circumstances and a student's probability of achieving a higher award. More specifically, when examining the effects of different structures in addition to the demographic factors, the results demonstrated that gender and ethnic background remained significant predictors of final award obtained, and age, neighbourhood affluence, household income and tariff points were also significant predictors of final award obtained. This supports the concepts outlined in the literature such as the effects of structural conditioning (Archer 2010, Bourdieu, 1984, Bronfenbrenner 1979). This is true even when considering these structures individually.

Familial habitus and cultural capital are the deeply ingrained habits, skills and dispositions of an individual based on their personal experiences, the experiences of their family, which influences their levels of cultural, social and economic capital (Bourdieu, 1986). Examples of these structures include their household, family, friends, school, affluence as well as neighbourhood affluence. These structures in society can help to inform how a person develops, how the barriers they may face can influence their future decisions, their demeanour, self-confidence, and individual self-regulation (Bourdieu, 1984).

What this means in a practical sense is that the different experiences of these structures especially in the early years of the student is there will need to be a balancing of multiple

norms. Students from non-traditional backgrounds include first generation, students of colour, lower income households, mature students and students with a declared disability (Wong 2018). This study included the exploration of many of these types of non-traditional students barring disability. Non-traditional students may lack certain institutional habitus that other students may already possess. This can result in them and other non-traditional students, being left with a feeling of being unsure of themselves and what is expected of them, and generally less confident in the university sphere (Leathwood, 2006). To ensure that non-traditional students are given the opportunity to be high achieving non-traditional students, they will need access to a supportive network including their peers, tutors, family, and friends. This must include wider participation workshops/advice on grammar (Wong, 2018). While all universities provide such support, what is also needed is for students to develop the necessary capital to provide them with a platform from which to access them without the notion of feeling that this puts them in a negative light to their tutors. This links in with the premise that by having a lack of or reduced institutional habitus that their counterparts have, can put them at a disadvantage.

Other aspects of being a non-traditional student includes coming from a lower income household. There is evidence that shows how young people from lower SES families are more likely to have part time jobs while studying (Baker, 2019), and this can factor into time spent on academic studies, attending optional workshops, or socialising with peers. Furthermore, financial concerns may lead to students to be less engaged with the material and university culture, as they may also be working at the same time and may not have had the same experiences before university as their more privileged counterparts. Neighbourhood affluence (measured using acorn type) is a classification system based on demographic factors as well as consumer behaviour using postcodes. This score gives an idea on neighbourhood affluence. The median score was 27 indicating 'steady neighbourhoods – suburban semis, conventional attitudes'. The mean was 28 ('steady neighbourhoods, owner occupied terraces, average income' and the mode 11 ('mature money – settled suburbia, older people'. When taking into consideration the other structural factors and demographics, the results demonstrated that neighbourhood affluence is a significant predictor.

Whilst similar to a certain extent when considering the structural effects of being a non-traditional student, students of colour in particular (in relation to higher education) can often experience dilemmas of identity. There can be pressure to also keep a careful balance of their individual cultural heritage of languages, traditions, and norms whilst also being mindful of societal norms of the dominant group (Frings et al, 2020) and in this case, university culture. Higher education institutions could help students to develop a unified identity, which can help

the student to acclimatise and combine the different and equally important aspects of themselves. This can include building a sense of community to their programme, department or peers on a scale that is manageable. For example, having common spaces, events and opportunities that is not related to academic study necessarily but a chance for social interaction. This can aid with the developing that sense of belonging that is positively influences a student's experience of higher education, which further affects final award obtained. Universities could do this by having more student-centred social events, a common space on campus for students to socialise, at the departmental level which can provide connections between peers and peers to tutors. This links with the institutional habitus that is required to navigate university (McDonough, 1997; Reay, 1998, 2010). Tariff points being a significant predictor could be due to the cycle of success, having previously done well in education, students have the skills to study well and get good grades. They may have already confidence in themselves, and this allows them to navigate higher education better too (Pintrich 2014; Schunk & Parajes, 2002; Reay et al, 2010; Bathmaker et al, 2013).

Institutional habitus and confidence

A reduced institutional habitus and therefore confidence may mean that students do not feel comfortable asking for help or taking up offers of support (Wong & Chiu, 2019). It is important to highlight to students not only how important it is to ask for help but also that it is normal to do so. To take up extra support that is being offered such as drop-in sessions, office hours, etc. is not a sign of weakness or of losing independent study, or the image a HANT student may have created of himself or herself but rather it is their right to do so. It is part of understanding university culture or possessing and mobilising institutional habitus, to play the game using the right tools (Gillborn et al, 2016; Ross et al, 2018; Wong, 2015). "Most will adapt and survive, whilst some may struggle and leave. But few will **thrive**" – (Wong and Chiu, 2019, 871). This is worded perfectly to properly understand the complex issue at hand. Whilst students may be aware of the role their institutions play in enabling students to thrive by the litany of support available, however there is a gap in students accessing the support and opportunities available. Universities are well placed to play a central role in addressing this and changing these patterns (Rowan, 2019). It is not enough to be satisfied with increase widening participation of non-traditional students or students of colour in this instance which is consistent with other institutions all around the UK – an increase of 12% of Black students from 2016/17 to 2020/2021, and an increase of 20% of Asian students, HESA; 2022). It is crucial that we do not remain complacent; there is a lot more work to do be done. Social inequity in education is so prevalent, but rarely challenged – we must actively work to right these wrongs, use our positions to create safe spaces to empower students and ultimately

move beyond equality to equity (Miller, 2019). When students arrive at university, they are consistently working to balance between their authentic self, institutional culture as well as their ethnicity-cultural identity; this can be a challenging and exhausting task!

Trying to understand these core issues to resolve them, it becomes clear to see that students of colour face many obstacles to overcome. For example, there is an undisputed lack of representation in education and leadership as well as generally being at a disadvantage with experiencing unconscious bias and systemic racism; the strategy may be to keep quiet, stay in the background or fringes so as not to highlight the attention to themselves (Wong et al, 2020). It may be difficult to ask or help, to display what they may consider being a weakness if they asked for help or support on the material or assessments (Wong and Chiu, 2019; Ross et al 2018). One way to combat this would be normalise having staff in positions of power to represent a diverse student body and diversify recommended reading lists as well as embedding a diverse range of examples and authors within classroom content itself. By increasing representation, it can help to improve the experience of students of colour in higher education. Whilst the process of these things may already be happening at higher education institutions and a move to be more diverse, and inclusive, more must be done for **visible** representation.

This can especially be the case if they are used to not doing well, this will hinder them in multiple ways. When a student has a good experience with education and becomes accustomed to achieving good grades, they will be more confident in their abilities and may have noticed the effects of having educational capital and actioned it in a practical way (Pintrich 2014; Schunk & Parajes, 2002; Zimmerman, 2008). For example, understanding that learning goes beyond the classroom by interacting with peers, and establishing a connection to the campus, their programme, and the student body more widely. However, if they did not, and realistically this is the case for the large majority, to have negative experiences within the education system (Bathmaker et al, 2013), then they may only focus on the degree and not extracurricular activities. Furthermore, if they think that they are not capable of getting First class awards, they will aim for 2:1's instead, even if they can achieve the higher award. Likely, they may not have the necessary institutional habitus to navigate university culture, have confidence in asking for support and not feel as though they are taking up too much space (Hawe & Dixon, 2017).

It is not that innate ability is lower but rather students of colour may opt to keep their heads down and not be noticed, similar to the way they may do in their everyday life. It can be difficult to adapt to institutional norms, which can be vastly different from life outside higher education. The idea of standing up to take up opportunities, asking for support or even taking up offers

of support link to how much a student feels as though they belong there, how connected they feel to their course, peers, tutors, and campus as a whole (Tyson, et al, 2005; Comeaux & Jayakumar, 2007). This is a core component of decision-making, especially when it comes to participation in extracurricular activities. For instance, the current research found that participation in ECA's made a difference for Asian students, and therefore more exploration is needed for Black students in future studies. Perhaps, there is a lower likelihood of participating in ECA due to a reduced sense of community, and further research may help towards understanding how to increase participation.

If a student does not feel a connection, or a sense of belonging then it is difficult to understand and see beyond classroom learning. Therefore, to assume the student to be at fault would be to adopt a deficit model and would not help in finding a route out of this award gap impasse; possibly supporting the status quo. Constantly challenging the dominant group narrative can not only be tiring but also a sense of feeling isolated due to the lack of representation of people of colour (Wei, 2007; Miller, 2016). This is not always the case but the key element in achievement is the connectedness and belonging to something bigger than ourselves. If students feel connected to their peers on a wider level, they are able to support each other in many ways, both academically and otherwise. This can include attended extracurricular events as well as drop-ins, workshops, and other campus events. These are some of the general barriers faced, which are all important, but in addition to these, depending on the students' ethnic background, the student will face other barriers too.

Whilst some of these aspects will overlap with the different ethnicities within the grouping of people of colour, what a Black man will experience or the barriers he will face will be different from a visibly Muslim woman from Asian heritage. For instance, Black people in general, but Black men, in particular, may endure quiet looks, subtle actions of fear and other micro-aggressions as they are often seen as threatening (Wilson et al, 2017; McMahon & Roberts, 2011; McMahon & Roberts, 2008). Whereas a visibly Muslim woman may experience having her intelligence and self-preserving abilities be questioned, often a common assumption is that surely, she must be oppressed to wear the clothing she does or opposes national cohesion (Zempi, 2019). These examples and assumptions are not a complete list but do highlight how it is extremely important to examine the differences in final award obtained of the different ethnic groups within the 'BAME' grouping. These seemingly individual occurrences may seem separate to higher education or university, but they can become ingrained within a person's psyche and the continued battle of either ignoring or constantly having to explain one's decisions or cultural norms can become tiring (Wong et al, 2020). Especially as this systemic racism will often mean that students from a racially minoritized

backgrounds will experience this from a young age before they are even conscious of the racism they are experiencing.

As all these interactions and experiences help to create a person's identity, sense of self, inner confidence etc. it can then mean that students do not hold the same amount of institutional, education capital as their counterparts. Those 'playing the game' are better placed to navigate higher education and university, and therefore able to get higher grades. The rules are unknown to non-traditional students, and this has an effect on their grades and therefore leading to an award gap (Bathmaker et al, 2013).

The potential impact of participation in extracurricular activities

When examining the effects of self-regulation measured by overall attendance of core units for the three years, and participation in extracurricular activities, such as membership or on the committee for a sports club, society, registered volunteer and course representative, the results demonstrate that these factors are significant predictors of final award obtained. As well as ethnic background continuing to be a significant predictor of final award. This is supported by previous studies (Pintrich (2004), Schunk and Zimmerman (2008) Coutinho and Neuman (2008), DiBenedetto and Bembenutty (2011), Diseth (2011), Donche et al. (2013), Schunk and Benedetto (2016), Kirket et al (2019), which have shown the positive effects of self-regulation on final award obtained. The results of these studies also show that whilst initially the effects of societal structures have an impact, specifically family and neighbourhood affluence, ultimately, the student's participation in university culture can make an important difference. The act of understanding and mobilising institutional/education capital is key. This in line with the morphogenetic cycle (Archer, 2010) where individual action can have a significant impact on an individual's circumstances. The fact that the significant predictors of affluence became non-significant with the introduction of the self-regulation variables highlights this even more. Not only does it show how important agency is (with the proper support), but also demonstrates the advantages of building on the models and increasing possible factors to explain the persistent award gap.

The results showed that overall attendance was significant, demonstrating the importance of engagement. For each increase of 1 unit of attendance, the likelihood of a higher award increased by 1. The results showed that Asian female students had the highest level of attendance (67%), followed by Asian male students (64%), then Black and White female students (63%) and White males (62%). Whilst attendance does not necessarily mean that the student is actively engaging with the content, by being in the lecture or seminar, just by

choosing to be there they are engaging with their learning. Attendance has been a topic for research in relation to higher education for many years, but attendance does not necessarily have a positive effect on achievement (Nordmann et al, 2019), but by being present, it allows interactions with peers and tutors, being more connected to the material and bigger goal of the overall degree, and then their future career. However, whether lectures and seminars are compulsory or not, students still have to make the individual decision to attend – and this decision can be impacted by many external factors such as financial constraints and needing to work a job, as well as other familial stresses of balancing dual identities (Frings et al, 2020). For non-traditional students, the added pressures of trying to fit in, in addition to trying to navigate through higher education may lead to either a disconnectedness, especially for students who commute, or focussing solely only academic learning, not realising the importance of learning that is not only achieved in the classroom or by studying. In line with the previous studies stated, the participation in extracurricular activities has a significant impact on learning, confidence, sense of belonging and ultimately a higher award.

Self-regulation in this study has included attendance and participation in extracurricular activities, however, as previously stated, these are not the only forms of engagement and in future must include other aspects too, despite this, the results still clearly demonstrate the importance. Schunk (1995), Zimmerman (2008); Duchatelet & Donche 2019), state that by engaging in activities that increase confidence, self-worth, and increases resilience allows the student to plan, maintain and regulate their learning. Bathmaker et al (2013), also states that understanding and putting institutional norms into practise allows the student to achieve higher awards. So how can we improve/increase self-regulation in learning and teaching without solely putting the onus on the students? The institutions must evolve in many ways - firstly the curriculum to make it more inclusive and have more diverse representation. Secondly, the institutional habitus that some students are better placed to mobilise, made to be easier to access, understand and use practically by amplifying the benefits of proactive learning that goes beyond the classroom. This should be in two ways, making the extracurricular activities more accessible as well as highlighting to non-traditional students the importance of asking for support (Hawe & Dixon, 2017). That it is not a sign of weakness, this will increase the number of high achieving non -traditional students by accomplishing multiple things – a sense of belonging, meaningful interactions with peers and tutors, and individual reflexivity.

Students from non-traditional backgrounds must be provided with proper support to help them mobilise institutional habitus. It is not a problem they must fix on their own, the institution has a duty of care to ensure all their students can excel and attain the highest award. Although widening participation schemes and other policies (Robbins, 1963; Dearing 1997), have

increased the number of students of colour attending university, it is not enough. The responsibility lies both with students increasing their level of participation in extracurricular activities as well as the institutions; this includes all levels, from policy, lecturers, faculty etc. We must move away from deficit discourse and 'victim blaming'. It is not a simple case of meritocracy, as this does not work for all students (Arday, 2018; Bedingfield, 2020; Reay, 2021). Furthermore, this study, in line with Archer (2010), demonstrates the importance of not conflating the role of structure or agency alone, but that both effect the other, where structural factors will create more barriers for some compared to others. The current study demonstrates this with the results that for Asian students, whilst the structural factors had a negative impact on their final award, the introduction of the agential factors had a positive influence on their final award. It is important to note however, that this was not the same for Black students, further highlighting the importance of separating different ethnic groups beyond white or non-white/BAME. The results showed that despite Black students having similar or higher attendance and engagement than their white counterparts, they are still less likely to be awarded a first-class degree.

Some ways to ensure change is for research to include individual ethnic groups where possible not grouped as BAME. We are not a singular identity. Much like people from LGBTQ+ communities. It is easier to group together but this ultimately reduces the time and resources spent on working towards a better society. Problems can be easy to ignore when communities are grouped together rather than magnifying complex individual societal problems experienced by the group (Wong, 2015). Furthermore, when conducting research, it may help to reduce this kind of grouping by working towards including more people from racially minoritized backgrounds, especially those who belong to the target group. We must value data as real people with real outcomes, especially when conducting research and it is widely known that research is a key aspect in the purpose of universities. In terms of students, and how to improve this on a learning and teaching level, it is crucial to increase representation. Students need to see people like them in positions of power (Stevenson et al, 2019; Miller 2016; Bhopal, 2021). Not just as role models, which is important but also, that it is the norm to see people like them in media, publications, in the classroom content and around campus.

As students from non-traditional backgrounds can be reluctant to contribute to the classroom due to fear of appearing 'stupid' if they had incorrect answers (Howe and Dixon, 2017) i.e., issues of self-worth and not wanting to take up space they feel uncomfortable in from the outset. Reassurance in this instance is key to access opportunities and support, and it is critical to point out that whilst opportunities and support is readily available, often non-traditional students do not feel like they can them up due to various reasons. For example,

when it comes to academic support, it can be seen as a sign of weakness without realising that their more successful counterparts will be using this same support to achieve their goals (Hawe & Dixon, 2017). Therefore, students must be encouraged to take up offers of support but more importantly reassure students that it is the **norm.** Furthermore, by having a strategy of goal setting from the outset with smaller short-term course related goals can increase self-regulation/monitoring. In addition, bigger career related goals could help to keep the student motivated and see the bigger picture – when students have higher goals; it leads to higher level of performance (Corte, 2016). This can include weekly tasks, checklists, and interactive activities using online sources and discussing extracurricular opportunities. This can be possible by improving tutor to peer relationships in a more general sense, so when students begin to feel a sense of belonging with their tutors and classmates, it can improve their self-worth, self-efficacy, decision making, time management and resilience overall (Schunk 1995; Zimmerman, 2008; Duchatelet and Donche 2019).

When non-traditional students are supported to become high achieving, it can lead to morphogenesis, both individually for the students, leading to more representation in positions of power, societal structures changing again, so habitus and structural conditioning improves, leading into the next cycle for the individual, the communities, as well as institutions and cultural change. It must be noted however, that for Black students, the structural factors had more of an impact (model 1 – demographic factors, 61% less likely to be awarded a higher award, model 2 – structural factors, 57% less likely to be awarded a higher award, model 3 – agential factors, 61% less likely to be awarded a higher award). When participation in ECA's demonstrated a positive influence for white and Asian students, the same did not happen for black students. There are several things to consider here. Firstly, that all students from Black backgrounds are not homogenous, there are different cultural heritage backgrounds within the grouping that may help to identify how to support different students based on the obstacles they are facing. Secondly, black women and black men will also face different struggles either within the higher education system itself and/or prior to university. A difficult but important aspect to consider is systemic racism. Whilst higher education institutions continue working towards a more diverse and inclusive learning space, it is concerning that on the one hand, having higher family and neighbourhood affluence has a positive influence on institutional habitus and therefore higher likelihood of obtaining higher awards and some black students do have higher socioeconomic classification than their counterparts, have higher household income, and neighbourhood affluence, but on the other hand are not being awarded the same first-class degrees. Is this due to unconscious bias, the assessment and marking system, therefore, these need further investigation.

Addressing the award gap and social equity

Although social mobility has played an important role in attempting to reduce social inequalities and has even been successful to a certain extent, we must not become complacent in its perceived successes. Especially as it puts too much pressure and blame on the person/student when structural barriers have a large impact on this. Surely the onus to change the status quo should not solely depend on the individual especially when there are many aspects of structures in society that cause barriers to individuals such as systemic racism, 'white privilege', and the consequences of institutional habitus. Social equity would surely be a much more appropriate concept to address the inequalities that marginalised groups' experience. For instance, there is the discourse of higher education being a route for social mobility (Britton et al, 2021), However, social mobility is about escaping social disadvantage whereas social equity actively works to remove that disadvantage in the first instance by demanding fairness and equivalency rather than just sameness (Guy & McCandless, 2012). Therefore, to enact social equity, what may be of even more importance is to begin changing perceptions at the root level.

Why does the award gap even need to be resolved? This is perhaps where higher education must face an uncomfortable truth - the cycle of white privilege must end; the clusters of power have a lot of systemic racism embedded where many people do not even notice or realise it is happening or they are keeping the cycle active. 'The legacy of colonialism continues to frame the practices and characteristics for many institutions within our societies including education, the judicial system, the Government and the mass media.' (Arday, 2019, 141). The unconscious bias a person has and acts upon, leads to longer-term effects (Bowser, 2017; Richardson, 2008, 2012; Osler, 1999). Whilst the award gap has been acknowledged, and in some cases, interventions have been put into place at the university level, there is still much room for improvement as they do not seem to be reducing the award gap overall. Whilst beneficial on a smaller scale, it does not fully address the issue - institutions have the potential to address these social inequalities by really examining them from the root. It is easy to put the blame on the student for not having high enough aspirations or motivations, but this is simply not true as previous studies have shown (Bowers-Brown et al, 2019). Real solutions must take place (Arday, 2018). There needs to be active change, in policy both at governmental level and at university level that addresses some of the effects of having a s sense of belonging and community, confidence, and therefore increasing students' institution capital in a practical sense, and not superficially ticking boxes in an effort to make change (Ross et al, 2018).

If the student is not to blame for the award gap, then as a sector, we need to explore what is and importantly, what can be done to support success in all students, not just those coming to university with the type of institutional habitus that gives them the head start in this race for good grades. Overall, the results of the current research have shown that for some students there is scope for change in student outcomes via participation in extracurricular activities and engagement both inside and outside the classroom, highlighting the importance of students having a sense of community, as well as higher education institutions being a facilitator of academic learning, confidence building and a transitional preparation period for post-graduate outcomes. It also demonstrates the need to investigate these disparities further, where students from different backgrounds are not grouped together such as Bangladeshi, Indian, Pakistani, and other South Asian backgrounds. Similarly, black students are not homogenous, and should be included in future research with their individual cultural heritage backgrounds, such as African and Caribbean descent, and even more detailed where possible, as those are very large areas with different regions having their own culture and differences which can be a part of student's development prior to university.

Chapter 8 – Conclusion

Research Questions

- What factors affect students final award classification in higher education?
- Why is there an award gap despite widening participation?
- How much of an effect does do self-regulatory factors have on final award?
- To what extent do structures influence student attainment?

Key findings

- There is a significant award gap between Asian and Black students in comparison to White students. Asian students have a 41% lower likelihood of achieving a first-class award in comparison to white students. Black students have a 61% lower likelihood of achieving a first-class award in comparison to white students. This award gap remained consistent throughout each stage of the three statistical models when different factors were introduced.

- Overall attendance and participation in extracurricular activities had a significant impact on award attained. The likelihood changed from 60% less likely to be awarded a higher award to 41% for Asian students but did not change for Black students (61% likely to be awarded a higher award), when combining the socioeconomic factors and self-regulatory factors.

- Structural conditioning, such as familial habitus and institutional habitus has some impact on award obtained. This included household income, neighbourhood affluence (acorn score), and tariff points, which could explain some of the differences in participation of extracurricular activities by different groups.

Theoretical contribution

Governmental and university policies have been working towards increasing widening participation of non-traditional students for many years now, such as the Robbins report (1963) and the Dearing report (1997), as well as other higher education policies such as the inclusivity agenda, to move away from higher education being for the elite only. This has been successful to an extent; the number of non-traditional students has risen exponentially in recent years. In 2016/17, there were 58,355 students from a Black or Asian background in higher education in the UK (HESA, 2022). This has risen to 68,285 in 2021/21 as reported by HESA (2022).

However, there has been a consistent award gap which needed to be addressed. The current thesis did this by investigating different factors surrounding structural conditioning and individual agency. This included demographic factors, as well as structural factors such as family and neighbourhood affluence, previous academic performance, and examined the effects with individual agential factors too. This also included engagement in extracurricular activities as well as attendance in lectures. The current thesis did this by using a combined conceptual framework of Archer's morphogenetic approach and reflexivity (1995, 2003, 2007, 2010, 2012), Bourdieu's habitus and educational capital (1986, 1997), and Bronfenbrenner's bioecological systems (1979, 1989, 2005) to explain the effects of structures on student development prior to university. These concepts combined work well together to balance structure and agency; it places importance on the ability for agents to make individual action whilst not disregarding the effects of structures and how they disproportionately constrain or support some students.

The theoretical framework and consequently the models built from them for analysis allowed the current research to examine the effects of structure and agency by creating three models. The first model examined the effects of demographic factors on final award obtained. The second model built on the first and examined the effects of socio-economic factors (structural conditioning) alongside demographic factors and the third model built on the previous two, examining the effects of agential action (agency) alongside socio-economic factors, and demographic factors. The thesis demonstrated that structure and agency are not individual concepts to be explored separately but rather that they are intertwined with continuing influence over the other, without conflating the role of either. The current thesis introduced the following diagram based on Archer's morphogenetic approach, as a way to understand the complexity of the effects of structure and agency on individual outcomes.

Morphogenetic cycle explained

Structural conditioning
Habitus
Family
Neighbourhood
Household income -
affluence
Structural – cultural
systems

Socio-cultural interaction
Individual capital
Peer-Tutor
relationships
Self-regulatory
engagement

Structural elaboration
Individual reflexivity
Structural reflexivity
Morphogenesis i.e.,
transformation

**Structural
conditioning**

Structural elaboration
Continuous cycle

**Socio-cultural
interaction**

Methodological contribution

Whilst the current thesis was quantitative in nature, it proposes that there should be a reflexive element in all research to ensure that the statistics and the numbers reported are recognised as real people with individual lives and individual outcomes that go beyond the outcomes of the study, in essence, Reflexive Quantitative Methodology. It was through reflection and acknowledging positionality that provided the researcher with the necessary insight to be able to challenge the BAME label several years before the term 'people of colour' became more prevalent. The thesis demonstrates how quantitative studies can be used to give voice to marginalised groups, by both shining a light on the effects of structures on students' outcomes, as well as emphasising that the research challenges the status quo, and challenges the award gap rather than simply reporting it. The thesis therefore pushes the boundaries of what a quantitative study is, not just what it can do. For instance, people undergo constant reflection in their daily lives, however, when the practice is done purposefully especially in research it can have powerful outcomes. People are generally ever-changing and therefore continuous reflection is practiced where reflection occurs at periodic intervals; thus, affecting society at large and creating a generational shift. Although it is beneficial to consider the process and practice of reflection from the outset, true reflection occurs when there is some distance from the situation and needs to be retrospective (Ekeburgh, 2007). Therefore, the location, and by extension, intersectionality, is an important factor when exploring and discussing critical theories (Crenshaw, 1989). The current thesis did this by the researcher recognizing their own identities, values, and beliefs, which can be extremely helpful in challenging theories and

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methods used in research (Usher, 2021; May & Perry, 2017). When a researcher reflects on their decisions, actions, opinions, and assumptions, it allows for a much richer and meaningful research, even if it is quantitative in nature. By taking a quantitative approach it allowed for the thesis to look at the bigger picture and challenge the award gap, whereas a qualitative study would have provided interesting and important individual narratives only. This further highlights how elements of reflexivity being used in quantitative studies can benefit research impact.

Future directions for research

Measuring ethnic background - It may be useful to consider how ethnicity and race is considered and measured more generally in sociology as a whole (Letherby et al, 2013), and to then ensure it is not a case of simply grouping together white, and non-white individuals without consideration of differences in identity formation, cultural heritage, and how this impacts familial habitus and individual development. The current thesis rejected White and BAME as categories and separated Black and Asian students from the BAME category. However, the data did not allow for ethnic background to be broken down beyond Black, Asian, White. The number of students who do not fit into either category suggests that we should measure cultural markers more accurately if we are to first understand the award gap and then alter our current practise so that it eventually disappears, so that students from all backgrounds are awarded degree classification based on their talent and effort rather than their cultural background. This element is important as highlighted throughout the thesis. People of colour are not homogenous, and even when separating Black and Asian students, the differences in their heritage culture may mean they have faced different obstacles therefore must not be grouped together where possible. By taking a more granular approach, it could provide more nuance, and a deeper exploration of the differential outcomes.

Measuring engagement - Engagement was measured by using attendance for core lectures and participation in extracurricular activities. Both elements were limited but the current thesis worked within the constraints and measured the essence of participation. At the time, the data was limited, and ECA include whether the student was a member or a committee member for a society and/sports club, and whether they were a course representative or not. Given the importance of this in graduate outcomes, addressing the award gap, and the classification of degree, it seems a positive step that Manchester Metropolitan University are now collecting more participation data, and in a format that is much more useable. However, it is unfortunate that it was not available when the data for this study were obtained. In addition, attendance is

now measured in a significantly more accurate way, which may have increased the number of possibilities available when analysing the effects of attendance and engagement on issues such as the award gap.

Generalisability – Generalisability is often considered one of the main benefits of a quantitative study, as it has the means to provide generalisability to the wider population. Traditionally this would be in the form of a randomised control trial. However, in the social sciences, this is not necessarily the case, very few studies actually utilise randomised control trials (Tipton, 2014). Generally, there are three elements to consider in relation to generalisability – random sample, representativeness, and sample size (Nikolopoulou, 2022), therefore, when considering these aspects in relation to the current study, the institution used in this study is a post 92 modern university and could represent other universities with a similar background. Furthermore, when results are compared to the national average (HESA data), there is a distinct similarity, further demonstrating that the current research could be seen as representative of the wider student population. Additionally, as Manchester Met has one of the largest student populations in the UK and therefore large sample size, it adds further to the argument of capturing the essence of generalisability whilst acknowledging that the study is not strictly generalisable. Therefore, although the current research is an institutional case study which is not in itself strictly generalisable, it can nonetheless provide the grounds for an 'index of generalisability' due to its methodological approach (Miller, 2012, cited in Miller and Potter, 2017).

Qualitative aspect - Whilst this study was quantitative in nature, the researcher recognises that by having a qualitative dimension to the project, it could have enhanced the narrative by providing details of the student experience in relation to the themes explored and discussed. By having qualitative interviews, focus groups or case studies, it would have provided further insight into student opinions and attitudes towards their experience and another avenue to explore in terms of their final award classification. For instance, whether positive or negative experience influence confidence, likelihood of engaging in extracurricular activities, and in the case of Black students (as ECA did not have the same effects as their Asian and White counterparts), perhaps a further insight into where next to explore in terms of investigating possible factors that have an effect on final award as qualitative data can reveal things that numbers alone cannot.

Further research

Moving forward, it would be beneficial to investigate how higher education institutions foster a sense of community and belonging, particularly among non-traditional students. For instance,

in commuting students. This study's theoretical framework has exposed the intricate relationship between the institution and the student. By establishing the importance of these, it could lead to increased levels of confidence, institutional habitus, and engagement in ECA which could have the potential to enhance degree classification and reduce the award gap (Reay et al, 2010; Bathmaker et al, 2013). It follows that commuting students may find it more challenging to experience a sense of community if they can only attend lectures and seminars and commute back if they live far away or have caring duties, etc. If by providing this, it leads to higher levels of confidence, institutional habitus, and more participation in ECA (Browne, 2006; Lehmann, 2014; Allen et al, 2012; Baker, 2019; Tyson, et al, 2005; Comeaux & Jayakumar, 2007), then these effects must be explored on commuting students. Some ways to address this would be to ensure students feel invited to come in for events and extracurricular activities not necessarily related to their programme. It may be possible to demonstrate to commuting students and their families of the benefits of campus community and campus engagement and thus continue the next stage in reflexivity. As this this demonstrates that structural conditioning influences agency, which in turn influence's society (structural elaboration) and so forth. Furthermore, whilst structural conditioning may mean that some students are not as well equipped to navigate university as their counterparts, institutions could provide different ways to offer support, and encourage students to take up the offers of support; and students can exercise their agency by accessing these opportunities. Institutions could perhaps do this by creating space for enrichment activities in between lectures and seminars and explore changing the format of timetabling.

Implications of the research

This research started with the dilemma of some groups of students receiving lower degree classifications unrelated to their intellect. Policy at university level has begun to challenge the award gap, but it does seem to know more about what is happening and less about why this is happening. Whilst there are effects of structural conditioning, and the possibility for individual action, the fact that the same outcome is not present for all students means that further investigations are crucial. The award gap is an artefact of the three years spent in university and not a result of the degree classification itself. By focusing on the cultural background of the student, the institution misses the chance to examine its own cultural practises, such as those found in teaching style, assessment, and marking. Therefore, the next step in this discussion must be higher educational policy and practise at not only departmental and faculty level but institutional wide as this is the only way to ensure positive outcomes are achieved. By institutional taking responsibility and effecting the policy as well as sharing best practises across departments and faculties. This projects research impact

reaches both policy and practise at this institution. This includes discussions of a more detailed examination of the procedures that result in the award gap; and not the award gap itself. i.e., the award gap begins from the first year, and perhaps higher education institutions must face inward and examine the assessment process, marking and expand their inclusive strategies. If there is the issue of markers consistently marking lower than others, then maybe this needs to be addressed; a systematic review of assessment structures for all faculty may be the first step in challenging the award gap in a practical sense, and not just reporting the differential outcomes.

Bibliography

Abdelnour, S., Hasselbaldh, H & Kallinikos, J. (2017). Agency and institutions. Organization studies. 38:12. 1775-1792

Abrahams, J. (2018). Option blocks that block options: Exploring inequalities in GCSE and A level options in England. British Journal of Sociology of Education., 39, 1143–115. Accessed at: http://www.asatheory.org/current-newsletter-online/what-is-critical-realism - On 23/06/2021

Adams, R & Nye, P. (2013) Cambridge and Oxford places still dominated by sout-east applicants. The guardian. Accessed on 21/05/2022: https://www.theguardian.com/education/2013/jun/09/cambridge-oxford-places-south-east

Adamson, S. (2020) People of colour vs black people. Shades of Noir. Accessed on 21/05/2022: https://shadesofnoir.org.uk/people-of-colour-vs-black-people/

Advance HE. (2020) Embedding employability in higher education. Accessed on 15/05/2022: https://www.advance-he.ac.uk/guidance/teaching-and-learning/embedding-employability

Ahmed S (2012) On Being Included: Racism and Diversity in Institutional Life. Durham: Duke University Press

Allen, K. (2016). Top girls navigtating austere times: interrogating youth transitions since the 'crisis'. Journal of Youth Studies, 19(6), 805–

Allen, K., Quinn, J., Hollingworth, S. & Rose, A. (2012). Becoming Employable Students and 'Ideal' Creative Workers: Exclusion and Inequality in Higher Education Work Placements. British Journal of Sociology of Education iFirst

Amiot, C. E., de la Sablonnière, R., Terry, D. J., & Smith, J. R. (2007). Integration of social identities in the self: Toward a cognitive-developmental model. Personality and Social Psychology Review, 11, 364–388

Amiot, C. E., Terry, D. J., & McKimmie, B. M. (2012). Social identity change during an intergroup merger: The role of status, similarity, and identity threat. Basic and Applied Social Psychology, 34, 443–455

Anderson, R. (2016) 'University fees in historic perspective' History and Policy. Accessed on 15/05/2022: https://www.historyandpolicy.org/policy-papers/papers/university-fees-in-historical-perspective

Anderson, R. (2016) 'University fees in historical perspective'. History & Policy. Accessed on 21/05/2022: https://www.historyandpolicy.org/policy-papers/papers/university-fees-in-historical-perspective

Andrew J., A.J. McErlain-Naylor, S.A., Bradshaw, E.J., Hiroyuki Nunome, B.D., Hughes, G.T.G., Kong, P.W., Vanwanseele, B., Vilas-Boas, J.P & Fong, D.T.P. (2020) 'Recommendations for statistical analysis involving null hypothesis significance testing'. Sports Biomechanics. 19:5. 561-5

Antonio A., & Tuffley D. (2015). First year university student engagement using digital curation and career goal setting. Research in Learning Technology, 23. https://doi.org/10.3402/rlt.v23.28337

Archer, M. S. (1995). 'Realist Social Theory: The Morphogenetic Approach'. Cambridge: Cambridge. University Press.

Archer, M. S. (2000). 'Being Human: The Problem of Agency'. Cambridge: Cambridge University Press.

Archer, M. S. (2003). 'Structure, Agency and the Internal Conversation'. Cambridge: Cambridge. University Press.

Archer, M. S. (2007). 'Making Our Way Through the World: Human Reflexivity and Social Mobility'. Cambridge: Cambridge University Press.

Archer, M. S. (2008). 'The internal conversation: Mediating between structure and agency'. Full research report, ESRC end of award report, RES-000-23-0349. Swindon: ESRC.

Archer, M. S. (2010). 'Morphogenesis Versus Structuration: On Combining Structure and Action'. The British Journal of Sociology 61: 225–252

Archer, M. S. (2013). 'Social Morphogenesis'. London: Springer Science & Business Media.

Archer, M., Decoteau, C., Gorski, P., Little, D., Porpora, D., Rutzou, T., Smith, C., Steinmetz, G., & Vandenberghe, F. (2016). '*What is critical realism?*'. Perspectives: A Newsletter of the ASA Theory Section, Fall.

Arday J (2015) 'Creating space and providing opportunities for BAME 40 academics in higher education'. In C Alexander and J Arday (eds), Aiming Higher: Race, Inequality and Diversity in the Academy, pp. 4-–42

Arday, J. (2018) 'Dismantling power and privilege through reflexivity: negotiating normative Whiteness, the Eurocentric curriculum and racial micro-aggressions within the Academy, Whiteness and Education'. *Whiteness and Education*. 3:2, 141-161

Arday, J., & Mirza, H. (Eds.) (2019). Dismantling Race in Higher Education: Racism, Whiteness and Decolonising the Academy.

Arifin, M.H. (2017) The role of higher education in promoting social mobility in Indonesia. European journal of multidisciplinary studies. 2:6. 234-

Ashwin P. & McVitty D. (2015) The Meanings of Student Engagement: Implications for Policies and Practices. In: Curaj A., Matei L., Pricopie R., Salmi J., Scott P. (eds) The European Higher Education Area. Springer, Cham. https://doi.org/10.1007/978-3-319-20877-0_23

Bailey, T. (2013) Remembering Robbins. WonkHE. Accessed on 21/05/2022: https://wonkhe.com/blogs/remembering-robbins/

Baker, Z. (2019) Reflexivity, structure and agency: using reflexivity to understand Further Education students' Higher Education decision-making and choices. British Journal of Sociology of Education. 40:1. 1-16

Bandura, A. (1977) 'Self-efficacy: Toward a unifying theory of behavioral change'. Psychological Review. 84:2. 191-215

Barr, N. (2014) 'Shaping higher education, 50 years after Robbins'. The London School of Economics and Political Science. London.

Bathmaker, A. M., Ingram, N., & Waller, R. (2013). Higher education, social class and the mobilisation of capitals: Recognising and playing the game. British Journal of Sociology of Education, 34(5–6), 723–743

Bedingfield, E.C. (2020) 'The myth of meritocracy: education in the UK'. The Meridian. Accessed on 20/05/2022: https://meridian-magazine.com/the-myth-of-meritocracy-education-in-the-uk/

Behle, H., Atfield, G., Elias, P., Gambin, L., Green, A., Hogarth,T., Purcell,K., Tzanakou Ch. and Ch. Warhurst (2015). Reassessing the employment outcomes of higher education. J Huisman and J. Case (eds.) Investigating Higher Education. International perspectives on theory, policy and practice. Oxon and New York, Routledge Press: 114-131

Berger, P L. & Luckman, T. (1966) The social construction of reality: a treatise in the sociology of knowledge. Anchor books. United states

Bertani, A., Di Paola, G., Russo, E., & Tuzzolino, F. (2018). How to describe bivariate data. Journal of thoracic disease, 10(2), 1133–1137.

Bhaskar, R. (1978) A Realist Theory of Science, 2nd edn. Brighton: Harvester Press.

Bhopal K (2018) White Privilege: The Myth of a Post-racial Society. Bristol: Policy Press.

Bhopal K and Jackson J (2013) The experiences of black and ethnic minority academics, multiple identities and career progression. University of Southampton EPSRC, Southampton.

Bhopal, K. (2022) 'Academics of Colour in elite universities in the UK and the USA: the 'unspoken system of exclusion'. Studies in Higher Education. DOI: 10.1080/03075079.2021.2020746

Biau, D.J., Kernéis, S. & Porcher, R. (2008). Statistics in Brief: The Importance of Sample Size in the Planning and Interpretation of Medical Research. Clin Orthop Relat Res 466, 2282–2288

Birkett, A. (2020) One-Tailed vs. Two-Tailed Tests (Does It Matter?). Accessed on 21/05/2022: https://cxl.com/blog/one-tailed-vs-two-tailed-tests/

BIS (2011). Higher Education: Students at the Heart of the System. London: Department for Business, Innovation & Skills.

BIS (2015) Socio-economic, ethnic and gender differences in HE participation. London: HM Government

Blackmore, P., Bulaitis, Z.H., Jackman, A.H & Tan, E. (2016). Employability in higher education: a review of practice and strategies around the world. Pearson.

Bolton, P. (2022) 'Student Loan Statistics'. UK Parliament. Accessed on 15/05/2022: https://commonslibrary.parliament.uk/research-briefings/sn01079/#:~:text=Scale%20of%20student%20loans%20in%20England&text=The%20average%20debt%20among%20the,would%20repay%20them%20in%20full

Boulton, G. & Lucas, C. (2011) What are universities for? Chinese science bulletin. 56:23. 2506-2517

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

Bourdieu, P. (1980). The Logic of Practice. Stanford, Stanford University Press.

Bourdieu, P. (1984). Distinction: A Social Critique of the Judgement of Taste. London, Routledge.

Bourdieu, P. (1986). The Forms of Capital. Handbook of Theory and Research for the Sociology of Capital. J. G. Richardson. New York, Greenwood Press: 241-58.

Bourdieu, P. (1993). The field of cultural production. Cambridge, UK: Polity Press

Bourdieu, P., & Passeron, J.-C. (1979). The inheritors: The French students and their relation to culture (R. Nice, Trans.). The University of Chicago Press

Bourdieu, P., & Wacquant, L.J.D (1992). An Invitation to Reflexive Sociology. The University of Chicago Press.

Bowers-Brown, T., Ingram, N. & Burke, C. (2019) 'Higher education and aspiration' International Studies in Sociology of Education. 28:3-4. 207-214

Bowser, B. (2017). Racism: Origin and theory. Journal of Black Studies, 48(6), 572–590

Brennan, J., Durazzi, N. & Sene, T. (2013) 'Things we know and don't know about the wider benefits of higher education: a review of the recent literature.' Department for Business, Innovation and Skills.

British Sociological Association (2017) Statement of ethical practice. BSA publications

Britton, J., Craawford, C. & Dearden, L. (2015). Analysis of the Higher Education Funding Reforms Announced in the Summer Budget 2015, IFS Briefing Note BN174

Britton, J., Drayton, E., & Van Der Erve, L. (2021) 'Universities and social mobility'. The Sutton Trust

Brock, T., Carrigan, M. & Scambler, G. (2019) Structure, culture and agency: selected papers of Margaret Archer. Taylor & Francis group.

Broecke, S., and T. Nicholls. (2007). Ethnicity and degree attainment (Research Report RW92). London: UK Department for Education and Skills

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press

Bronfenbrenner, U., & Evans, G. W. (2000). Developmental science in the 21st century: Emerging questions, theoretical models, research designs and empirical findings. Social Development, 9(1), 115–125

Brooks, R. (2008). 'Accessing Higher Education: The Influence of Cultural and Social Capital on University Choice'. Sociology Compass 2 (4): 1355–1371

Brooks, R. (2013). 'The Social Construction of Young People Within Education Policy: Evidence from the UK's Coalition Government'. Journal of Youth Studies 16 (3): 318–333

Brooks, R. (2019). The construction of higher education students within national policy: A cross-European comparison. Compare: A Journal of Comparative and International Education. (Advance online access). https://doi.org/10.1080/03057925.2019.16041

Brooks, R., Gupta, A., Jayadeva, S. & Abrahams, J. (2021) 'Students views about the purpose of higher education: a comparative analysis of six Europeans countries'. 40:7, 1375-1388. DOI: 10.1080/07294360.2020.1830039

Brown, R. & Carasso, H. (2013) Everything for sale? The marketisation of UK higher education. Routledge. London

Browne, L. (2006). "As UK Policy Strives to Make Access to Higher Education Easier for All, is Discrimination in Employment Practice Still Apparent?" Journal of Vocational Education and Training 62: 313–326

Budd, R. (2016). 'Disadvantaged by degrees? How widening participation students are not only hindered in accessing HE, but also during – and after – university', Perspectives: Policy and Practice in Higher Education, doi: 10.1080/ 13603108.2016.1169230

Bukodi, E. & Goldthorpe, J. H. (2011), 'Class Origins, Education and Occupational Attainment in Britain: Secular Trends or Cohort-specific Effects', European Societies, 13: 347–75.

Bunglawala, Z. (2019) Please don't calle me BAME or BME! Diversity and inclusion. Gov.UK: https://civilservice.blog.gov.uk/2019/07/08/please-dont-call-me-bame-or-bme/

Burke, C. (2015). Culture, capitals and graduate futures: Degrees of class. London: Routledge

Burke, C. (2017). 'Capitals and Habitus: A Framework for Understanding Transitions into Higher Education and Student Experiences'. In Access to Higher Education: Theoretical Perspectives and Contemporary Challenges, edited by A. Mountford-Zimdars and N. Harrison, 51–66. Oxon: Routledge.

Butcher, J. (2020) 'What has been learned from 20 years of published articles on widening participation and lifelong learning?' Higher Education Policy Institute. Accessed on

15/05/2022: https://www.hepi.ac.uk/2020/01/14/what-has-been-learned-from-20-years-of-published-articles-on-widening-participation-and-lifelong-learning/

byrd, derria. (2019). Uncovering Hegemony in Higher Education: A Critical Appraisal of the Use of "Institutional Habitus" in Empirical Scholarship. *Review of Educational Research*, *89*(2), 171–210.

Byrne, B., Alexander, C., Khan, O., Nazroo, J., & Shankley, W. (Eds.). (2020). Ethnicity, race and inequality in the UK: State of the nation. Bristol: Policy Press

CACI (2018) Acorn technical guide.

Cain, L., Goldring J., & Westall, A. (2022): Seeing behind the curtain: Reverse Mentoring within the Higher Education landscape, Teaching in Higher Education, DOI:10.1080/13562517.2022.2129963

Calbi, M., Langiulli, N., Ferroni, F., Montalti, M., Kolesnikov, A., Gallese, V. & Umilta, M.A. (2021) 'The consequences of COVID-19 on social interactions: an online study on face covering'. Scientific Reports. 1-10

Callender, C., & J. Jackson. (2005). 'Does the Fear of Debt Deter Students from Higher Education?' Journal of Social Policy 34 (4): 509–540

Callender, C., and G. Mason. (2017). 'Does Student Loan Debt Deter Higher Education Participation? New Evidence from England.' The ANNALS of the American Academy of Political and Social Science 671 (1): 20–48

Campbell, S., Macmillan, L., Murphy, R., & Wyness, G. (2019). Inequalities in student to course match: evidence from linked administrative data. LSE Research Online Documents on Economics.

Card D, Chetty R, Feldstein MS, et al. (2010) Expanding access to administrative data for research in the United States. American Economic Association, Ten Years and Beyond: Economists Answer NSF's Call for Long-Term Research Agendas.

Carr, P.R. (2016) Whiteness and white privilege: problematizing race and racism in a 'color-blind' world, and in education. International journal of critical pedagogy. 7:1. 52-74

Chamberlain, J. M. (2013). Univariate analysis. In Understanding criminological research: A guide to data analysis (pp. 168-192). SAGE Publications Ltd,

Chan, R Y. (2016). 'Understanding the purpose of higher education: an analysis of the economic and social benefits for completing a college degree'. Journal of Education, Policy, Planning and Administration. 6:5. 1-40

Chiseri-Strater, E (1996). Turning in upon Ourselves: Positionality, Subjectivity and Reflexivity in Case Study and Ethnographic Research. Ethics and Representation in Qualitative Studies of Literacy, edited by Mortensen, Pe. and Kirsch, G.E. National Council of Teachers of English, pp. 115-133.

Cho, S., Crenshaw, K W. & McCall, L. (2013) Toward a field of intersectionality studies: theory, applications, and praxis. The university of Chicago press.

Christie, H., L. Tett, V. E. Cree, J. Hounsell, and V. McCune. 2008. "A Real Rollercoaster of Confidence and Emotions': Learning to Be a University Student." Studies in Higher Education 33 (5): 567–581.

Clark, D. (2022) 'Percentage of undergraduate degrees awarded each grade in the UK 2011-2021' Statista. Accessed on 15/05/2022: https://www.statista.com/statistics/676995/university-degree-awards-uk/

Clifford, V. & Montgomery, C. (2017) Designing an internationationalised curriculum for higher education: embracing the local and the global citizen, Higher Education Research & Development, 36:6, 1138-1151

Cohen, L., Manion, L. & Morrison, K. (2011) Research Methods in Education, Routledge.

Comeaux, E., & U.M. Jayakumar. (2007). Education in the United States: Is it a Black problem? Urban Review 39, no. 1: 93–104.

Connell-Smith, A. & Hubble, S. (2022) 'Widening participation strategy in higher education in England'. UK Parliament. Accessed on 15/05/2022: https://commonslibrary.parliament.uk/research-briefings/cbp-8204/

Connelly, R., Playford, C.J., Gayle, V. & Dibben, C. (2016) The role of administrative data in the big data revolution in social science research. Social Science Research. 59. 1-12

Connor, H., C. Tyers, T. Modood, and J. Hillage. (2004). Why the difference? A closer look at higher education minority ethnic students and graduates (Research Report No. 552). London: UK Department for Education and Skills.

Connor, H., Dewson, S., Tyers, C. Eccles, J., Regan, J. & Aston, J. (2001) 'Social class and higher education: Issues affecting decisions on participation by lower social class groups'. Institute for Employment Studies

Considine, G. & Zappala, F. (2002) The influence of social and economic disadvantage in the academic performance of school students in Australia. Journal of sociology. 38:2. 129-148

Corte, E D. (2016) Improving Higher Education Students' Learning Proficiency by Fostering their Self-regulation Skills. European Review, Vol. 24, No. 2, 264–276

Cotton, D. R. E., M. Joyner, R. George, & P. A. Cotton. (2016). "Understanding the Gender and Ethnicity Attainment Gap in UK Higher Education." Innovations in Education and Teaching International 53 (5): 475–486.

Coutinho, S. A., & Neuman, G. (2008). A model of metacognition, achievement goal orientation, learning style and self-efficacy. Learning Environments Research, 11(2), 131–151

Covington, M. V. (1984). The self-worth theory of achievement motivation: Findings and implications. The Elementary School Journal, 85(1), 5–20.

Cowan, C. D., Hauser, R., Kominski, R., Levin, H., Lucas, S., Morgan, S., et al. (2012). Improving the measurement of socioeconomic status for the national assessment of educational progress: A theoretical foundation. Retrieved from National Center for Education Statistics website
https://nces.ed.gov/nationsreportcard/pdf/researchcenter/Socioeconomic_Factors.pdf.

CRED (2020) Commission on Race and Ethnic Disparities: Sub-group priorities. https://www.gov.uk/government/publications/commission-on-race-and-ethnic-disparities-sub-group-priorities/commission-onrace-and-ethnic-disparities-sub-group-priorities

CRED (2021) Commission on Race and Ethnic disparities. Gov.UK; https://www.gov.uk/government/publications/the-report-of-the-commission-on-race-and-ethnic-disparities

Crenshaw K (1989) Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine. The University of Chicago Legal Forum 1989(1): 139–167.

Crenshaw K (1991) Mapping the margins: Intersectionality, identity politics, and violence against women of color. Stanford Law Review 43(6): 1241–1299

Crossman, A. (2020). 'The Concept of Social Structure in Sociology.' ThoughtCo. Accessed on 19/05/2022: https://www.thoughtco.com/social-structure-defined-3026594

Crotty, M. (2003) *The Foundations of Social Research: Meaning and perspective in the research process* (London: Sage Publications)

Data Protection Act (2018) Gov.UK

De Clercq, M., Galand, B., Dupont, S., & Frenay, M. (2013). Achievement among first-year university students: An integrated and contextualised approach. European Journal of Psychology of Education, 28, 641-662.

Dearing Report (1997) higher education in the learning society. The National Committee of Enquiry into Higher Education

Department for Education (2017) Unlocking talent, fulfilling potential. A plan for improving social mobility through education.

Department for the Economy. (2019) 'Higher education widening participation'. Accessed on 15/05/2022: https://www.economy-ni.gov.uk/articles/higher-education-widening-participation

Di Leo, G., Sardanelli, F. (2020). Statistical significance: p value, 0.05 threshold, and applications to radiomics—reasons for a conservative approach. Eur Radiol Exp 4,:18

DiBenedetto, M. K., & Bembenutty, H. (2011, April 8-12). Within the pipeline: Selfregulated learning and academic achievement among college students in science courses. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA

Diseth, A. (2011). Self-Efficacy, Goal orientations and learning strategies as mediators between preceding and subsequent academic achievement. Learning and Individual Differences, 21, 191-195

Donche, V., De Maeyer, S., Coertjens, L., Van Daal, T., & Van Petegem, P. (2013). Differential use of learning strategies in first-year higher education: The impact of personality, academic motivation, and teaching strategies. British Journal of Educational Psychology, 83(2), 238–251

Draycott, M., D. Rae, and K. Vause. 2011. "The Assessment of Enterprise Education in the Secondary Education Sector." Education and Training 53 (8/9): 673–91.

Dubois, Michel. "Ideology, Sociology of." *International Encyclopedia of the Social & Behavioural Sciences* 2nd ed., edited by Wright, J.D., Elsevier, 2015, pp. 573-587.

Duchatelet, D., & Donche, V. (2019) 'Fostering self-efficacy and self-regulation in higher education: a matter of autonomu support or academic motivation?' Higher education research & development. 38:4. 733-747

Duncan Smith, I. (2012) Social justice, transforming lives. Work for pensions. HM government.

Duncan, D. (2021) Twenty not out: how higher education has changed in 20 years. Accessed on 21/05/2022: https://www.ahua.ac.uk/twenty-not-out-how-higher-education-has-changed-in-20-years/

Dyke, M., Johnston, B. & Fuller, A. (2012) Approaches to reflexivity: navigating education and career pathways. British journal of sociology of education. 831-848

ECU (2014) Education, social class, and the mobilisation of capitals: recognising and playing the game. British Journal of Sociology of Education, 34:5-6, 723-743

Einav, L., & Levin, J. (2014). The data revolution and economic analysis. Innovation Policy and the Economy, 14(1), 1-24.

Ekebergh, M. (2007) Lifeworld-based reflection and learning: a contribution to the reflective practice in nursing and nursing education. Reflective Practice. Vol. 8. No. 3. pp 331-343

Elder-Vass, D. 2007. Reconciling Archer and Bourdieu in an Emergentist Theory of Action. Sociological Theory 25 (4): 325–246

Eleven, 119(1), 22–46Mueller, C. W., & Parcel, T. L. (1981). 'Measures of socioeconomic status: Alternatives and recommendations'. Child Development. 52. 13–30.

Elias, P. (2014) administrative data. Facing the Future: European Research Infrastructures for the Humanities and Social Sciences. 47-48

Elias, P., Jones, P & McWhinnie, S. (2006). Representation of ethnic groups in chemistry and physics. London: Royal Society of Chemistry and Institute of Physics

Elliot, S. & Davis, J.M. (2018) 'Challenging taken-for-granted ideas in early childhood education: A critique of Bronfenbrenner's Ecological Systems Theory in the age of post-humanism' Research Handbook on Childhood nature, Springer International Handbooks of Education. 1-36

Fearon, C., Nachmias, S., McLaughlin, H. & Jackson, S. (2018) Personal values, social capital, and higher education student career decidedness: a new 'protean'-informed model, Studies in Higher Education, 43:2, 269-2

Finlay, Linda (2008). Reflecting on 'Reflective practice'. Practice-based Professional Learning Paper 52, The Open University.

Fisher R A (1925) Statistical Methods for Research Workers. Oliver and Boyd, Edinburgh, UK

Foskett, N. (2010) Markets, government, funding and the marketisation of UK higher education. Routledge

Franklin, A. J., Boyd-Franklin, N., & Kelly, S. (2006). Racism and Invisibility. Journal of Emotional Abuse, 6(2–3), 9–30.

Frings, D., Gleibs, I H & Ridley, A M. (2020) 'What moderates the attainment gap? The effects of social identity incompatibility and practical incompatibility on the performance of students who are or are not Black, Asian or Minority Ethnic'. Social Psychology of Education. 23. 171-188

Frostick, C., Phillipsm G., Renton, A. & Moore, D. (2016) The Educational and Employment Aspirations of Adolescents from Areas of High Deprivation in London. J youth adolescence. 45. 1126-1140

Gaddis, S. M. (2013). The influence of habitus in the relationship between cultural capital and academic achievement. Social Science Research, 42(1), 1–13

Galdas, P. (2017) Revisiting bias in qualitative research: reflections on its relationship with funding and impact. International journal of qualitative methods. 16. 1-2

Garner, R. (2013) 'Elite universities as 'socially exclusive as ever' Independent. Accessed on 15/05/2022: https://www.independent.co.uk/student/news/elite-universities-as-socially-exclusive-as-ever-8965204.html

Gee, J. P. (2000). Chapter 3: Identity as an Analytic Lens for Research in Education. Review of Research in Education 25 (1): 99–125

Gelman, A. & Henning, C. (2015, 2017) Beyond subjective and objective in statistics. Journal of the royal statistics society. 180:4. 967-1033

Gibbs G (1988). Learning by Doing: A guide to teaching and learning methods. Further Education Unit. Oxford Polytechnic: Oxford

Gidley, J M., Hampson, G P., Wheeler, L. & Bereded-Samual, E. (2010) From Access to Success: An Integrated Approach to Quality Higher Education Informed by Social Inclusion Theory and Practice. Higher education policy. 23. 123-147

Gillborn, D. (2008) Racism and Education: Coincidence or Conspiracy? London: Routledge.

Gillborn, D., Rollock, N., Warmington, P. & Demack, S. (2016). Race, racism, and education: inequality, resilience, and reform in policy & practise. Society for educational studies.

Godwin, A., et al. (2021). New Epistemological Perspectives on Quantitative Methods: An Example Using Topological Data Analysis. Studies in Engineering Education, 2(1) 16–34.

Goldthorpe, J.H. (2016) Social class mobility in modern Britain: changing structure, constant process. Journal of the British Academy. 4. 89-111

Gonzales, N., L. Moll, and C. Amanti. (2005). Funds of Knowledge. Mahwah, NJ: Lawrence Erlbaum.

Greiffenhagen,C, Mair, M. & Sharrock, W, (2011). From Methodology to Methodography: A Study of Qualitative and Quantitative Reasoning in Practice. Methodological innovation

Grim, J., Moore-Vissing, Q., & Mountford-Zimdars, A. (2019). A comparative study of the factors shaping postsecondary aspirations for low-income students in greater Boston and greater London. British Journal of Sociology of Education, 1–19

Grondin, Jean, 1994, Introduction to Philosophical Hermeneutics, New Haven: Yale University Press.

Guilbault, M. (2016) Students as customers in higher education: reframing the debate, Journal of Marketing for Higher Education, 26:2, 132-142

Guy, M.E., & McCandless, S.A. (2012) 'Social equity: its legacy, its promise'. Public administration review. 72. 5-13

Haigh, M., & Clifford, V. (2011). Integral vision: A multi-perspective approach to the recognition of Graduate Attributes. Higher Education Research & Development, 30(5), 573–584.

Hansen, M. N., & Mastekaasa, A. (2006). 'Social origins and academic performance at university'. European Sociological Review. 22. 277–291

Harris, J. C. (2017). Multiracial college students' experiences with multiracial microaggressions. Race Ethnicity and Education, 20(4), 429–445.

Hart, C.S. (2019) 'Education, inequality and social justice: a critical analysis applying the Sen-Bourdieu analytical framework'. Policy Futures in Education, 17 (5). pp. 582-598. ISSN 1478-2103

Hartwig, F., & Dearling, B. E. (1979). Exploratory data analysis. SAGE Publications Inc. https://dx.doi.org/10.4135/9781412984232

Hawe, E., & Dixon, H. (2017) 'Assessment for learning: a catalyst for student self-regulation'. Assessment & Evaluation in Higher Education. 42:8, 1181-1192

Haynes, K. (2012). Reflexivity in qualitative research. In G. Symon, & C. Cassell Qualitative organizational research (pp. 72-89). SAGE Publications, Inc., https://dx.doi.org/10.4135/9781526435620.n5

Heeks R., Wall P.J. (2017) Critical Realism and ICT4D Research. In: Choudrie J., Islam M., Wahid F., Bass J., Priyatma J. (eds) Information and Communication Technologies for Development. ICT4D 2017. IFIP Advances in Information and Communication Technology, vol 504. Springer, Cham.

HEFCE (2013). POLAR- Participation of Local Areas.

HESA (2022) Who's studying in HE. Accessed on 21/05/2022: https://www.hesa.ac.uk/data-and-analysis/students/whos-in-he

Hewitt, R. (2020) Mind the gap: gender differences in higher education. Higher education policy institute. https://www.hepi.ac.uk/2020/03/07/mind-the-gap-gender-differences-in-higher-education/

Hillman, N. & Robinson, N. (2016) Boys to men: the underachievement of young men in higher education – and how to start tackling it. higher education policy institute.

Historic England. (2022) 'University'. Accessed on 21/05/2022: https://historicengland.org.uk/research/inclusive-heritage/womens-history/visible-in-stone/university/#:~:text=Despite%20passing%20university%20examinations%2C%20women,Oxford%2C%20and%201948%20at%20Cambridge

Holmes, A.G.D. (2020) 'Researcher positionality – A consideration of its influence and place in qualitative research – a new researcher guide' International Journal of Education. 8:4. 1-10

Holton, M. (2016) Examining students night-time activity spaces: identities, performances, and transformations. Geography research. 55:1. 70-79

Holton, M., (2016). The geographies of UK university halls of residence: examining students' embodiment of social capital. Children's Geographies, 14(1), pp. 63– 76

Houghton, T. (2011) Does positivism really 'work' in the social sciences? E-Internation relations. 1-4

Hubble, S., Bolton, P. & Lewis, J. (2021) 'Equality of access and outcomes in higher education in England' House of Commons briefing paper.

Hunt, W. & Atfield, G. (2019) The wider (non-market) benefits of post 18 education for individuals and society. Research report. Department for Education.

Ianelli, C. (2013) The role of the school curriculum in social mobility. British journal of sociology of education. 907-928

Jaeger M.M (2010). Does Cultural Capital Really Affect Academic Achievement?. Centre for Strategic Research in Education. 1 – 37

Jaeger, E. L. (2016). Negotiating complexity: A bioecological systems perspective on literacy development. Human Development, 59(4), 163–187

Jafar A.J.N. (2018) What is positionality and should it be expressed in quantitative studies? Emergency Medicine Journal 2018;35:323-324

Janz N (2015) Bringing the gold standard into the classroom: Replication in University Teaching. International Studies Perspectives. DOI: 10.1111/insp.12104

Jasper, M. (2013) Beginning reflective practice. Foundations in nursing and health care. Nelson thornes. Cheltenham

Jetten, J., Iyer, A., Tsivrikos, D., & Young, B. M. (2008). When is individual mobility costly? The role of economic and social identity factors. European Journal of Social Psychology, 38, 866–879.

Jobbins, D. (2013) 'UK higher education since Robbins – A timeline'. University World News. Accessed on 15/05/2022:
https://www.universityworldnews.com/post.php?story=20131028123008296

Jones, R.C. (2008) The "Why" of Class Participation: A Question Worth Asking. College Teaching. 56 (1), pp. 59–63

Jury, M., Smeding, A., Stephens, N., Nelson, J., Aelenei, C., & Darnon, C. (2017). The experience of low-SES students in higher education: Psychological barriers to success and interventions to reduce social-class inequality. Journal of Social Issues, 73(1), 22–41

Kirkert, R., Meeuwisse, M., Stegers-Jager K M., Koppenol-Gonzalez G V., Arends L R. & Prinzie, P. (2019) 'Assessment policies and academic performance within a single course: the role of motivation and self-regulation'. Assess & Evaluation in Higher Education. 1 - 14

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. Journal of school health, 74(7), 262-273.

Knio, K. (2018) The morphogenetic approach and immanent causality: A spinozian perspective. Journal for the theory of social behaviour. 48. 398-415

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development (Vol. 1). Englewood Cliffs, NJ: Prentice-Hal

Kroger, J. (2015). Identity development through adulthood: The move toward "wholeness." In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 65–80). Oxford, United Kingdom: Oxford University

Kwiek, M. (2018) High research productivity in vertically undifferentiated higher education systems: Who are the top performers? Scientometrics 115, 415–4

Ladson-Billings & Tate IV, W.F. (1995) 'Toward a critical race theory of education'. Teachers college record. 97:1. 47-68

Lairio, M., Puukari, S. & Kouvo, A. (2013) Studying at University as Part of Student Life and Identity Construction, Scandinavian Journal of Educational Research, 57:2. 115-131

Lakew, Y. (2017). Statistical Tales: Bringing in Reflexivity to Make Sense of Quantitative Data. In Present Scenarios of Media Production and Engagement (pp. 225–238). Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:oru:diva-78905

Lambert, H. (2019) 'Th great university con: how the British degree lost its value'. The New Statseman. Accessed on 15/05/2022: https://www.newstatesman.com/politics/2019/08/the-great-university-con-how-the-british-degree-lost-its-value

Lareau, A., & Ferguson, S. (2017). Cultural exclusion of upwardly mobile college students. Paper presented at the American Sociological Association. Montreal

Leathwood, C. (2006). "Gender, Equity and the Discourse of the Independent Learner in Higher Education." Higher Education 52 (4): 611–633.

Lehmann E.L. (1993) The Fisher, Neymann-Pearson theories of testing hypotheses: one theory or two? Journal of the American Statistical Association 88: 1242-9

Lehmann, W. (2014). Habitus transformation and hidden injuries: Successful working-class university students. Sociology of Education, 87(1), 1–15

Lei, H., Cui, Y. & Zhou, Walker (2018) Relationships between student engagement and academic achievement meta-analysis. Social behaviour and personality An international Journal. 46:3. 517-528

Leslie, D. 2005. "Why People from the UK's Minority Ethnic Communities Achieve Weaker Degree Results than Whites." Applied Economics 37 (6): 619–32.

Letherby, G., Scott, J. & Williams, M. (2013). Objectivity and Subjectivity in Social Research. London: SAGE.

Lewis, M. (2022) 'Student loan is now 4.5%. Should I panic or pay it off?' MSE. Accessed on 15/05/2022: https://www.moneysavingexpert.com/students/repay-post-2012-student-loan/

Little, D. (2017). Sociological Perspectives on Social Structure. In K. Korgen (Ed.), The Cambridge Handbook of Sociology: Core Areas in Sociology and the Development of the Discipline (pp. 215-216). Cambridge: Cambridge University Press. London: Palgrave

Malterud, K., (2001). "Qualitative Research; Standards, Challenges and Guidelines." The Lancet, vol. 358. 483-488.

Marginson, S. (2016). The worldwide trend to high participation higher education: Dynamics of social stratification in inclusive systems. Higher Education, 72(4), 413–434.

Marsh, D. and Stoker, G., eds. (2002) *Theory and Methods in Political Science*, 2nd edn (Basingstoke: Palgrave Macmillan)

Martin, B. & Sorenson, M J. (2021) 'Snobbery in the academy is alive and well and doing harm'. The Conversation. Accessed on 15/05/2022: https://theconversation.com/snobbery-in-the-academy-is-alive-and-well-and-doing-harm-32037

Mason, R., Malik, S. & Ball, J. (2014) 'Tuition fees: former Tory advisor says government got its maths wrong'. The Guardian. Accessed on 15/05/2022: https://www.theguardian.com/education/2014/mar/21/tuition-fees-former-tory-adviser-government-maths-wrong

May, T. & Perry, B. (2017) Reflexivity the essential guide. Sage publishing.

McArthur, J. (2011). Reconsidering the social and economic purposes of higher education. Higher Education Research & Development, 30(6), 737–749. https://doi.org/10.1080/07294360.2010.539596

Mcdonough, P.M. (1997). Choosing colleges: How social class and schools structure opportunity. Albany: State University of New York Press

McEvoy P, Richards D. A critical realist rationale for using a combination of quantitative and qualitative methods. Journal of Research in Nursing. 2006;11(1):66-78

McIntosh, P. (1988). White privilege and male privilege: A personal account of coming to see correspondences through work in women's studies. Wellesley College Center for Research on Women

McMahon, W. & Roberts, R (2008) 'Ethnicity, Harm and Crime: A Discussion Paper' London: Centre for Crime and Justice Studies

McMahon, W. & Roberts, R. (2011) 'Truth and lies about 'race' and 'crime'. Myths and criminal justice.
Accessed on 21/05/2022: https://www.crimeandjustice.org.uk/publications/cjm/article/truth-and-lies-about-race-and-crime

Merriam-Webster. (2022) 'Society'. Accessed on 15/05/2022: https://www.merriam-webster.com/dictionary/society

Middleton, Rebekah (2017) Critical reflection: the struggle of a practise developer. International Practise Development Journal vol 7 (1) pp. 1-6

Milburn, A. C. (2012). Fair access to professional careers: A progress report by the independent reviewer on social mobility and child poverty. London: Cabinet Office

Miller, P. (2012). 'Professional lives in transition: shock, turbulence and adaptation in teacher identity reconstruction'. Germany: Lambert Academic Publishers, cited in Miller, P & Potter, I (2017) 'Whole School Development Across Borders: Leading Intercultural and Cross-Cultural Learning', pg 245 – 265, in *Cultures of Educational Leadership*, Intercultural Studies in Education.

Miller, P. (2016) 'White sanction', institutional, group and individual interaction in the promotion and progression of black and minority ethnic academics and teachers in England'. Power and Education. 8:3. 205-221. DOI: 10.1177/1757743816672880

Mingers, J. (2004) Realizing information systems: critical realism as an underpinning philosophy for information systems. Information and Organization 14: 87–103.

Mishra, N. (2015) 'India and Colorism: The finer nuances'. Global perspectives on colorism. Vol 14:4. 725-750

Molesworth, M., Nixon, E., & Scullion, R. (2009). Having, being and higher education: The marketisation of the university and the transformation of the student into consumer. Teaching in Higher Education, 14(3), 277–287

Morlaix, S., & Suchaut, B. (2014). 'The social, educational and cognitive factors of success in the first year of university: A case study'. International Review of Education. 60. 841–862.

Moutsios, S. (2013). The de-Europeanization of the university under the Bologna Process. Thesis eleven, 119(1), 22–46.

Murtagh, S., Ridley, A., Frings, D., & Kerr-Pertic, S. (2016). First-year undergraduate induction: Who attends and how important is induction for first year attainment? Journal of Further and Higher Education.

Navarro, Z. (2006) 'In Search of Cultural Interpretation of Power', IDS Bulletin 37(6): 11-22

Naylor, R. A., and J. Smith. 2004. "Determinants of Educational Success in Higher Education." In International Handbook on the Economics of Education, edited by G. Johnes and J. Johnes, 415–461. Cheltenham: Edward Elgar

Nazimuddin, S.K (2014) Social mobility and role of education in promoting social mobility. International journal of scientific engineering and research. 2347-3878

Ner, S. & Gooden, A. (2022) 'Black, BAME or People of Colour: what's in a name?' Bectu. Accessed on 21/05/2022: https://bectu.org.uk/news/black-bame-or-people-of-colour-whats-in-a-name/

Neyman J, Pearson E S 1928 On the use and interpretation of certain test criteria for purposes of statistical inference. Biometrika 20A: 175-240, 263-94

Nikolopoulou, K. (2022, Nov). *What Is Generalizability? | Definition & Examples.* Scribbr. Retrieved November 17: from https://www.scribbr.com/research-bias/generalizability/

Noel, L-A. (2016) Promoting an emancipatory research paradigm in design education and practice. Design research society. 27-30

Nordmann, E., Calder, C., Bishop, P., Irwin, A. & Comber, D. (2019) 'Turn up, tune in, don't drop out: the relationship between lecture attendance, use of lecture recordings, and achievement at different levels of study'. Higher education. 77. 1065-1084

O'Brien, M. (2015). 'Student finance, progression and 'inclusivity': indicative data from the University of Liverpool'. Widening Participation & Lifelong Learning, 17, 74-88.

OECD (2018), Education at a Glance 2018: OECD Indicators, OECD Publishing, Paris. http://dx.doi.org/10.1787/eag-2018-en

OFS (2022) Differences in student outcomes. Accessed on 21/05/2022: https://www.officeforstudents.org.uk/data-and-analysis/differences-in-student-outcomes/ethnicity/

Olsen, W., Morgan, J. (2004) A Critical Epistemology of Analytical Statistics: addressing the Sceptical Realist. Paper presented to the British Sociological Association, March 2004

ONS (2005) The national statistics socioeconomic classification user manual.

Osborne, J. (2017). Simple linear models with polytomous categorical dependent variables: multinomial and ordinal logistic regression. In Regression & linear modeling (pp. 133-156). SAGE Publications, Inc

Osler, A. 1999. The educational experiences and career aspirations of black and ethnic minority undergraduates. Race, Ethnicity and Education 2, no. 1: 39–58.

Owen, D., Green, A., Pitcher, J. Maguire, M. (2000). Minority ethnic participation and achievements in education, training and the labour market (Research Report No. 225). London: UK Department for Education and Skills

Pascarella, E.T. and Terenzini, P.T. (2005) How College Affects Students: a third decade of research, San Francisco: Jossey-Bass / John Wiley

Patiniotis, J., & Holdsworth, C. (2005). 'Seize that Chance!' Leaving Home and Transitions to Higher Education.' Journal of Youth Studies 8:1. 81–95

Pek, J. & Van Zandt, T. (2020) Frequentist and Bayesian approaches to data analysis: evaluation and estimation. Psychology learning & teaching. 19:1. 21-35

Pells, R. (2016) Privileged students six times more likely to secure places at top UK universities than most disadvantaged peers. Independent. Accessed on 21/05/2022: https://www.independent.co.uk/news/education/education-news/priviledged-students-six-times-more-likely-secure-places-top-uk-universities-oxford-cambridge-ucas-than-most-disadvantaged-peers-a7072226.html

Phoenix, A. & Craddock, N. (2022) 'Black men's experiences of colourism in the UK'. Sociology. 1-17

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and selfregulated learning in college students. Educational Psychology Review, 16,385-407

Playford, C J. Gayle, V. Connelly, R & Gray, A JG. (2016) Administrative social science data: the challenge of reproducible research. Big data and society. 1-13

Pollard, E., Huxley, C., Martin, A., Takala, M. & Byford, M. (2019) Impact of the student finance system on participation, experience and outcomes of disadvantaged young people. Department for Education.

Radice, H. (2013). How we got here: UK higher education under Neoliberalism. ACME: An International E Journal for Critical Geographies 12(3), 407 - 418

Raffo, C., Forbes, C. & Thomson, S (2015) Ecologies of educational reflexivity and agency – a different way of thinking about equitable educational policies and practices for England and beyond?, International Journal of Inclusive Education, 19:11, 1126-1142

Rahman, Md S. (2017) 'The advantages and disadvantages of using qualitative and quantitative approaches and methods in language 'testing and assessment' research: a literature review'. Journal of Education and Learning. 6:1. 1927-5269

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. (2004) 'It's all becoming a habitus': beyond the habitual use of habitus in educational research.' British Journal of Sociology of Education. Vol. 25 No.4. 431 - 444

Reay, D., David, M., & Ball, S. (2001). "Making a Difference?: Institutional Habituses and Higher Education Choice." Sociological Research Online 5 (4): 14–25.

Reay, D. (2018). Working-class educational transitions to university: The limits of success. European Journal of Education, 58(4), 528–540.

Reay, D. (2021) The working classes and higher education: Meritocratic fallacies of upward mobility in the United Kingdom. Eur J Educ. 56. 53–64

Reay, D. J., Davies, M., & Ball, S. J. (2002). It's taking me a long time, but I'll get there in the end: Mature students on access courses and higher education choice. British Educational Research Journal, 28, 5–19.

Reay, D., Crozier, G., & Clayton, J. (2009). "Strangers in Paradise?": Working-class students in elite universities. Sociology, 43(6), 1103–1121

Reay, D., Crozier, G., & Clayton, J. (2010) 'Fitting in' or 'standing out': working-class students in UK higher education'. British Educational Research Journal. Vol 36:1. 107-124

Redmond, P. 2010. "Outcasts on the inside: Graduates, Employability and Widening Participation." Tertiary Education and Management 12: 119–135.

Reid, L. D., & Birchard, K. E. (2010). The people doth protest too much: Explaining away subtle racism. Journal of Language and Social Psychology, 29(4), 478–490.

Richardson, J. T. (2008). The attainment of ethnic minority students in UK higher education. Studies in Higher Education, 33, 33–48.

Richardson, J. T. E. (2012). The attainment of White and ethnic minority students in distance education. Assessment & Evaluation in Higher Education, 37, 393–408.

Richardson, J. T. E. 2015. "The Under-Attainment of Ethnic Minority Students in UK Higher Education: What We Know and What We Don't Know." Journal of Further and Higher Education 39 (2): 278–291

Richardson, J.T. E., Mittelmeier, J. and Rienties, B. (2020). The role of gender, social class and ethnicity in participation and academic attainment in UK higher education: an update, Oxford Review of Education, 46:3, 346-362, DOI: 10.1080/03054985.2019.1702012

Richardson, M., Abraham, C., & Bond, R. (2012). 'Psychological correlates of university students' academic performance: A systematic review and meta-analysis'. Psychological Bulletin. 138. 353–387

Ridley, A. M. (2007). Approaches to learning, age, ethnicity and assessment. Implications for widening participation. Psychology Teaching Review, 13, 3–13.

Robbins Report (1963) Higher education. Committee on higher education

Rolfe, H. (2017) 'Inequality, Social Mobility and the New Economy: Introduction', National Institute Economic Review, 240(1). 1-4

Rosa, E. M., & Tudge, J. (2013). Urie Bronfenbrenner's theory of human development: Its evolution from ecology to bioecology. Journal of Family Theory & Review, 5(4), 243–258

Ross, F.M., Tatam, J.C., Hughes, A.L., Beacock, O.P & McDuff, N. (2018) The great unspoken shame of UK higher education: Addressing inequalities of attainment. African Journal of business ethics. 12:1. 104-115

Rowe, Wendy E. (2014) "Positionality." The Sage Encyclopaedia of Action Research, edited by Coghlan, David and Mary Brydon-Miller, Sage

Russell Group (2008) 'Graduate survey shows Russell Group students are more likely to go onto work or further study'. Russell Group. Accessed on 21/05/2022: https://russellgroup.ac.uk/news/graduate-survey-shows-russell-group-students-are-more-likely-to-go-on-to-work-or-further-study/

Ryan, L. & Golden, A. (2006) 'Tick the box please': A reflexive approach to doing quantitative social approach. Sociology. 40:6. 1191-1200

Rylance, E. (2022) Higher education: limited to the rich and privileged? Palatinate. Accessed on 21/05/2022: https://www.palatinate.org.uk/higher-education-limited-to-the-rich-and-privileged/

Sackett, P. R., Kuncel, N. R., Arneson, J. J., Cooper, S. R., & Waters, S. D. (2009). 'Does socioeconomic status explain the relationship between admissions tests and post-secondary academic performance?' Psychological Bulletin. 135. 1–22.

Sackett, P. R., Kuncel, N. R., Beatty, A. S., Rigdon, J. L., Shen, W., & Kiger, T. B. (2012). The role of socioeconomic status in SAT-grade relationships and in college admissions decisions. Psychological Science. 23. 1000–1007

Salway, S., Allmark, P. J., Barley, R., Higginbottom, G., Gerrish, K. & Ellison, G. (2009). Social research for a multiethnic population: do the research ethics and standards guidelines of UK Learned Societies address this challenge? Twenty-first century society, 4 (1), 53-81

Sanderson, Michael (2002). The History of the University of East Anglia, Norwich. London: Hambledon & London.

Sayer, A. 2005. The Moral Significance of Class. Cambridge: Cambridge University Press

Schulz, B. (2008) 'The importance of soft skills: Education beyond academic knowledge' Journal of Language and Communications. 146-154

Schunk, D. H., & DiBenedetto, M. K. (2016). Self-efficacy theory in education. In K. R. Wentzel, & D. B. Miele (Eds.), Handbook of motivation at school (pp. 34–54). New York, NY: Routledge.

Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield, J. S. Eccles (Eds.), Development of Achievement Motivation (pp. 15-31) San Diego, CA

Schunk, D. H., & Zimmerman, B. J. (2003). Self-regulation and learning. In W. M. Reynolds, & G. E. Miller (Eds.), Handbook of psychology, Vol. 7: Educational Psychology (pp. 59–78). Hoboken, NJ: Wiley

Schunk, D. H., & Zimmerman, B. J. (2003). Self-regulation and learning. In W. M. Reynolds, & G. E. Miller (Eds.), Handbook of psychology, Vol. 7: Educational Psychology (pp. 59–78). Hoboken, NJ: Wiley

Schunk, D.H., & Mullen, C.A. (2013) 'Toward a conceptual model of mentoring research: integration with self-regulated learning'. Education Psychology Review. 25. 361-389

Scott Jones, J. & Goldring, John E. (2021). *Exploratory and Descriptive Statistics.* Sage

Scott, P. (2012) 'It's 20 years since polytechnics became universities – and there's no going back' The Guardian. Accessed on 15/0/2022: https://www.theguardian.com/education/2012/sep/03/polytechnics-became-universities-1992-differentiation

Seidal, M. (2021). 'Epistemic Relativism'. *The* Philpapers Foundation. Accessed online at: https://philpapers.org/browse/epistemic-relativism on 23/06/2021

Shaikh, M. (2017) 'Struggling to Escape Colorism: Skin Color Discrimination Experiences of South Asian Americans' PhD thesis. University of Michigan

Shand-Baptiste, K. (2021) The 'post-racial' narrative I Britain and the US is more myth than reality. Accessed on 21/05/2022: https://www.gq-magazine.co.uk/politics/article/post-racial-britain

Sharkey, L. (2021) Understanding what 'BAME' means and why it's a contentious term. Accessed on 21/05/2022: https://www.healthline.com/health/bame-meaning

Shaw, C. (2013) 'Is English still the dominant language of higher education? - live chat. The Guardian. Access on 20/05/2022: https://www.theguardian.com/higher-education-network/2013/feb/13/english-language-international-higher-education

Silesbarcena, I. (2019) Inequality in the UK higher education system. Global inequalities. Accessed on 21/05/2022: https://sites.manchester.ac.uk/global-social-challenges/2019/05/23/inequality-in-the-uk-higher-education-system/

Singer E, Mathiowetz N, Couper M. (1993) 'The impact of privacy and confidentiality concerns on survey participation: The case of the 1990 U.S. census'. Public Opinion Quarterly. 57. 465–482.

Singh G (2011) Black and Minority Ethnic (BAME) students' participation in higher education: improving retention and success. A synthesis of research evidence. Coventry: HEA.

Singh, G. (2009). Black and minority ethnic (BME) students' participation in higher education: improving retention and success: A synthesis of research evidence. York: Higher Education Academy

Siraj, I. & Huang, R. (2020) Operationalizing Bronfenbrenner's PPCT model in researching human development: commentary on Xia, Li and Tudge. Human development. 64. 21-25

Siraj, I., & Mayo, A. (2014). Social class and educational inequality: The impact of parents and schools. Cambridge, UK: Cambridge University Press.

Slomp, D., Mombourquette, C., & Marynowski, R. (2018). A case study of school leadership and the change process through the lens of Bronfenbrenner's bioecological theory of human development. In SAGE Research Methods Cases.

Spicker, P (2022), Social Policy in the UK, An introduction to Social Policy. Accessed on 21/05/2022: http://spicker.uk/social-policy/uk.htm

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. American Psychologist, 52, 613.

Stevenson, J., & Clegg, S. (2011). Possible selves: Students orientating themselves towards the future through extracurricular activity. British Educational Research Journal, 37(2), 231-246.

Stevenson, J., O'Mahony, J., Khan, O., Ghaffar, F. & Stiell, B. (2019) 'Understanding and overcoming the challenges of targeting students from under-represented and disadvantaged ethnic backgrounds'. Report for Office for Students.

Stone, J. (1996). Ethnicity. In The social science encyclopedia, ed. A. Kuper and J. Kuper, 260–63. 2nd ed. London: Routledge.

Sutton Trust (2017) Social mobility 2017 report. London

Sweetman, P. (2003). 'Twenty-First Century Dis-Ease? Habitual Reflexivity or the Reflexive Habitus.' The Sociological Review 51 (4): 528–549.

Taper, T. (2010) 'The Dearing Report: Ten years on' Institute of Education. 14:2, 67-68. DOI: DOI: 10.1080/13603100902808718

The Anti-Racist Educator. (2019) 'Person of colour'. Accessed on 21/05/2022: https://www.theantiracisteducator.com/person-of-colour

The Browne Report (2010) Securing a sustainable future for higher education. Department for Business, Innovation & Skills

The University Guys. (2022) 'Guides/UK'. Hawkins Global Education. Accessed on 21/05/2022: https://www.theuniversityguys.com/how-scotland-is-different-from-the-rest-of-the-uk/

Thomas, G. (2009) How to do Your Research Project: A Guide for Students in Education and Applied Social Sciences. London: Sage.

Thomas, L. (2002). 'Student Retention in Higher Education: The Role of Institutional Habitus.' Journal of Education Policy 17 (4): 423–442.

Thompson, D. W. (2019). Widening participation research and practice in the United Kingdom on the twentieth anniversary of the Dearing report, reflections on a changing landscape. Educational Review, 71(2), 182–197.

Tinto, V. (1993). Leaving College: Rethinking the Causes and Cures of Student Attrition. 2nd ed. Chicago: University of Chicago Press

Tipton, E. (2014) 'How Generalizable Is Your Experiment? An Index for Comparing Experimental Samples and Populations' Journal of Educational and Behavioral Statistics. Volume 39, Issue 6, December 2014, Pages 478-501

Tomlinson, S. (2008) Race and Education: policy and politics in Britain. Maidenhead: Open University Press.

Tripathy, J.P. (2013) Secondary data analysis: ethical issues and challenges. Iranian journal of public health. 42:12. 1478-1479

Trowler, V. (2010). Student engagement literature review. Department of Educational research.

Tukey, J. W. (1977). Exploratory data analysis (Vol. 2, pp. 131-160).

Tukey, J.W. (1980) We need both exploratory and confirmatory. The American statistician. 34:1. 23-25

Tyson, K., W. Darity, Jr., and D.R. Castellino. (2005). It's not 'a black thing': Understanding the burden of acting white and other dilemmas of high achievement. American Sociological Review 70, no. 4: 582–605.

Uchida A, Michael RB, Mori K. (2018) An Induced Successful Performance Enhances Student Self-Efficacy and Boosts Academic Achievement. AERA Open

Universities & NUS. (2019) Black, Asian, and minority ethnic student attainment at UK universities: #closingthegap. 978-1-84036-421-7

Universities, UK. (2016) 'Working in partnership: Enabling social mobility in higher education'. Social Mobility Advisory Group

Universities, UK. (2021) 'Higher education in numbers'. Accessed on 15/05/2022: https://www.universitiesuk.ac.uk/latest/insights-and-analysis/higher-education-numbers

Usher, L.E. (2021) The case for reflexivity in quantitative survey research in leisure studies: lessons from surf research. Annals of leisure research. 1-16

Vallance P. (2016) The historical roots and development of the civic university. In: Goddard, J; Hazelkorn, E; Kempton, L. Vallance, P, ed. The Civic University: The Leadership and Policy Challenges. Cheltenham, UK: Edward Elgar. 16-33

Van Ewijk, R., & Sleegers, P. (2010). The effect of peer socioeconomic status on student achievement: A meta-analysis. Educational Research Review, 5, 134–150.

Vélez-Agosto NM, Soto-Crespo JG, Vizcarrondo-Oppenheimer M, Vega-Molina S, García Coll C. Bronfenbrenner's Bioecological Theory Revision: Moving Culture From the Macro Into the Micro. Perspectives on Psychological Science. 2017;12(5):900-910

Wakeling, P.& Hampden-Thompson, G. (2013). Transition to Higher Degrees across the UK: An Analysis of National, Institutional and Individual Differences. York: Higher Education Academy

Walker S, Read S, Priest H. 2013. 'Use of reflexivity in a mixed-methods study. Nurse Res. 2013 Jan; 20(3):38-43.

Weale, S. (2022) Tony Blair calls for drastic increase of young people in higher education. The guardian. Accessed on 21/05/2022: https://www.theguardian.com/education/2022/apr/18/tony-blair-calls-for-drastic-increase-of-young-people-in-higher-education

Wei, F (2007) 'Cross-cultural teaching apprehension: A co-identity approach to minority teachers'. New Directions for Teaching and Learning 110: 5–14.

Wenstone, R. (2014) in Mason, R., Malik, S. & Ball, J. (2014) 'Tuition fees: former Tory advisor says government got its maths wrong'. The Guardian. Accessed on 15/05/2022: https://www.theguardian.com/education/2014/mar/21/tuition-fees-former-tory-adviser-government-maths-wrong

Westrick, P. A., Le, H., Robbins, S. B., Radunzel, J. M., & Schmidt, F. L. (2015) 'College performance and retention: A meta-analysis of the predictive validities of ACT scores, high school grades, and SES'. Educational Assessment. 20. 23–4

Williams DA (2013) Strategic Diversity Leadership: Activating Change and Transformation in Higher Education. Sterling: Stylus Publishing

Wilson, J. (2010) Essentials of Business Research: A Guide to Doing Your Research Project. SAGE Publications. Pp7

Wilson, J.P., Hugenberg, K. & O.Rule, N. (2017) 'Racial bias in judgements of physical size and formidability: from size to threat'. Interpersonal relations and group processes. 59-80

Winkler I. (2018). Doing Autoethnography: Facing Challenges, Taking Choices, Accepting Responsibilities. Qualitative Inquiry. 24(4):236-247.

Wong, B. & Chiu, Y-L T. (2019) 'Swallow your pride and fear': the educational strategies of high-achieving non-traditional university students'. British Journal of Sociology of Education. 40:7, 868-882. DOI: 10.1080/01425692.2019.1604209

Wong, B. (2015) A blessing with a curse: model minority ethnic students and the construction of educational success. Oxford Review of Education, 41 (6).

Wong, B., Elmorally, R., Copsey-Blake, M., Highwood, E. & Singarayer, J. (2021) 'Is race still relevant? Student perceptions and experiences of racism in higher education', Cambridge Journal of Education, 51:3, 359-375

Wongsuphasawat, K., Liu, Y., & Heer, J. (2019). Goals, process, and challenges of exploratory data analysis: an interview study.

Yorke, M. (2006) Employability in higher education: what it is – what it is not. Higher education academy.

Zempi, I. (2019) 'Veiled Muslim women's responses to experiences of gendered Islamophobia in the UK'. International review of victimology. 21:1. 96-111

Zimmerman, B. (2000) 'Self-efficacy: an essential motive to learn'. Contemporary Educational Psychology. 25. 82-91

Zimmerman, B., Bandura, A. & Martinez-Pons, M. (1992) 'Self-motivation for academic attainment: the role of self-efficacy beliefs and personal goal setting'. American Research Journal. 29:3. 663-676

Appendices

Appendix 1: A full list of universities in the UK

Ancient universities Before the 19th century, c.1067 and 1882, Introduced liberal education	University of Oxford University of Cambridge University of St Andrews University of Glasgow University of Aberdeen University of Edinburgh
Wave 1 Red brick universities 'Red Brick' was coined by a professor at University of Liverpool inspired by a distinctive red brick in colour. The red brick universities of today have older origins of traditional medical or engineering colleges, which prepared students for the external examination at University of London.	University of Birmingham (Victoria) University of Manchester University of Leeds University of Sheffield Queen's University Belfast University of Bristol
Wave 2: Civic universities Only different from red brick universities based on the date of the foundation. These were established for development and focussed on science and engineering during the industrial revolution. This also included former colleges of advanced technology. They were also known for admitting students without reference to religion.	University of Reading University of Nottingham University of Southampton University of Hull University of Exeter University of Leicester
Plate Glass universities (1960 – 1969) Plate glass universities differed from civic universities as they had they own degree-award powers, pioneered by university of Keele (est. 1949). They were known for the modern architecture and glass buildings.	University of Sussex University of Keele University of East Anglia University of York Newcastle university Lancaster university University of Strathclyde University of Kent University of Essex University of Warwick Loughborough university Aston university Brunel university London University of Surrey University of Bath University of Bradford City university London Heriot-Watt university University of Salford

	University of Dundee University of Stirling New university of Ulster The open university
Post 1992 universities Wave 1 (1992 – 1994) The Further and Higher Education Act 1992 allowed polytechnic and central institutions to be awarded the status of university and were able to award their own degrees. This was to boost skilled labour in engineering, science, and technology. Although known as 'post 92' or 'new universities', their heritage goes back to the 19th century.	Anglia Ruskin university Birmingham city university Bournemouth university University of Brighton University of Central Lancashire Coventry university De Montfort university University of Derby University of East London University of Glamorgan University of Greenwich University of Hertfordshire University of Huddersfield Kinston university Leeds Beckett university University of Lincoln London Guildhall university Liverpool John Moores university London South Bank university Manchester Metropolitan University Middlesex university Napier university University of North London Northumbria university Nottingham Trent university Oxford Brookes university University of the West of Scotland Plymouth university University of Portsmouth The Robert Gordon university Sheffield Hallam university Staffordshire University University of Sunderland Teesside university University of Westminster University of the West of England University of Wolverhampton Glasgow Caledonian university Cranfield university University of West London Abertay university UMIST (university of Manchester Institute of Science and Technology)
Wave 2	

From 1999, higher education policy has been a devolved power. In 2004, to gain university status, the requirement of having the power to gain a research degree was dropped.	University of Gloucestershire London Metropolitan university University of Bolton University of the Arts London Roehampton university University of Manchester Cardiff university Canterbury Christ church university University of Chester University of Winchester Liverpool Hope university Solent university Bath spa university University of Worcester University of Northampton University of Chichester University of Bedfordshire Edge Hill university York St John university Queen Margaret university Imperial college London University of Cumbria Buckinghamshire new university Aberystwyth university Bangor university Swansea university Swansea metropolitan university Wrexham Glyndwr university University of creative arts University of Wales trinity saint David Cardiff Metropolitan university University of the Highlands and Islands University of law University college Birmingham Bishop Grosseteste university Arts university Bournemouth Falmouth university Harper Adams university University of St Mark & St John Leeds trinity university Royal Agricultural university Newman university, Birmingham Regents' university London University of South Wales BPP university St Mary's university, Twickenham Arden university University of Suffolk Leeds arts university Ravensbourne university London Hartpury university

Appendix 2: Russell group universities

Russell Group universities	
University of Birmingham	London School of Economics and Political Science
University of Bristol	University of Manchester
University of Cambridge	Newcastle University
Cardiff University	University of Nottingham
Durham University	University of Oxford
University of Edinburg	Queen Mary University of London
University of Exeter	Queen's University Belfast
University of Glasgow	University of Sheffield
Imperial College London	University of Southampton
King's College London	University College London
University of Leeds	University of Warwick
University of Liverpool	University of York

Appendix 3: Timeline of financial support/fees

1997	Introduction of tuition fees, maintenance grants only for the poorest students, otherwise replaced by the student loan.
1998/99	Whilst tuition for higher education had been free up to this point, now there was a fee of £1000 per year. Some other changes included: • a means tested maintenance grant • non-income-based tuition fee loan • support for living costs as a loan which was partly assessed on income • repayment would be 9% of their graduate income when income surpassed £10,000
2006/7	• An increase in tuition fee to £3000 • Non-means tested tuition fee loan • Maintenance grant £2700 • Partially means tested loan with a reduction of £1 for every £1 in grant up to £1200 • Disability allowance, ADG, CCG, PLA, means-tested
2008/9	• Income threshold to receive maintenance grant changed from £18,360 to £25,000 • Partial grant threshold changed from £39,305 to £60,005
2009/10	• Maintenance grant threshold remained at £25,000 but threshold for award partial grant decreased to £50,020 • The means testing aspect of the maintenance loan changed from 25% to 28%. • Introduction of providing evidence from previous tax year to apply for student finance loans.
2012/13	• A significant rise in tuition fee to from £3000 to £9000 per year. This included fees for distance learners. The fees changed to £6000 for alternative providers from university institutions • Changes based on location to maintenance grant • Flat rate for maintenance loan of £3750 (not means tested).
2016	• Raised cap on tuition fees to £9250

Appendix 4: univariate analysis

Dependent Variable	Frequency	Percentage
Final Award	**(n6857)**	
Third Class/Pass	n497	7.2%
Second Lower Class	n1522	22.2%
Second Upper Class	n2972	43.3%
First Class	n1866	27.2%
Missing	n5 (00.1%)	

Demographic characteristics

Variable	Frequency	Percentage
Gender	**(n6856)**	
Male	n2819	41.1%
Female	n4037	58.9%
Missing (incl. other)	n6 (< 1%)	
Age	**(n6857)**	**N/A**
17 - 67	m20.47	
	Std. Dev	
Missing	4.372	
	n5	
Ethnic Group	**(n6062)**	
Asian (all backgrounds)	n998	16.5%
Black (all backgrounds)	n300	4.9%
White (all backgrounds)	n4764	78.6%
Missing (incl. other)	n800 (11.7%)	

Family and neighbourhood circumstances

Variable	Frequency	Percentage
Cycle of success (Tariff Points)	**(n5921)**	**N/A**
12 – 216	m111.49 Std. Dev	
Missing	29.06 n941	
First generation student (Parental higher education)	**(n6011)**	
		46.1%
Yes	n2772	**53.9%**
No	n3239	
	n851 (12.4%)	
Missing		
Socioeconomic status (NS SEC)	**(n6415)**	**N/A**
1 – 8 (1 = higher professional)	m4.56 Std. Dev 2.62	
Missing	n447	
Neighbourhood affluence (Acorn type)	**(n6434)**	**N/A**
1 – 62 (1 = more affluent lifestyle)	m28.29 Std. Dev 17.02	
Missing	n428	
Household Income	**(n4382)**	**N/A**
0 - £1,932,776	m20,638.55 Std. Dev	
Missing	34,392.11 n2480	
Participation in higher education (Polar4)	**(n6438)**	**N/A**
	m3.20	
1 – 5 (1 = low)	Std. Dev	
Missing	1.384 n424	

Self-Regulation (Level of Participation)

Variable	Frequency	Percentage
Overall Attendance	(n2852)	N/A
0 – 300	m36.39 Std. Dev 40.44 n4010	
Missing		
ECA participation	(n6661)	N/A
0 – 4 (4 = higher)	m.23 Std. Dev .540 n201	
Missing		

Appendix 5: bivariate analysis

Attainment level %

Socio-demographic characteristics	Third/ Pass	Lower second	Upper Second	First class	X²	Df	P- value	Degree association
Gender	(n = 497)	(n =	(n = 2972)	(n =	54.942	3	.000	0.05 Ö
Female	6.2%	20.3%	46.6%	26.9%				
Male	8.8%	24.9%	38.7%	27.6%				
Ethnicity	(n=425)	(n=1316)	(n=2646)	(n=1675)	295.419	6	.000	0.05 Ö
Asian	13.9%	29.9%	40.2%	16%				
Black	16%	34.7%	35.7%	13.7%				
White	5%	19.2%	44.9%	30.9%				
Age	(n=6857)	-	-	-	-.048	-	.000	0.01 Ö

Attainment level %

Family & neighbourhood characteristics		Correlation coefficient	P Value	Degree association
NS SEC	(n=6415)	-.099	.000	0.01
Tariff	(n=5921)	.074	.000	0.01
Household income	(n=4382)	.131	.000	0.01
Affluence - Acorn	(n=6434)	-.144	.000	0.01
Polar4	(n=6438)	.070	.000	0.01

	Third/Pass	Lower Second	Upper Second	First Class	X^2	Df	P- Value	Degree Associatio
Parent HE	(n=400)	(n=1306)	(n=2628)	(n=1677)	17.085	3	.001	0.05
Yes	6.5%	20.1%	43.2%	30.2%				
No	6.8%	23.2%	43.7%	27.9%				

Attainment level %

Self-Regulation and Extra-curricular activities		Correlation coefficient	P Value	Degree association
Overall attendance	(n=)	.040	.000	0.01
ECA	(n=)	.095	.000	0.01

Appendix 6: Multivariate analysis

<u>Model 1 output and interpretations</u>

Omnibus Test[a]

Likelihood Ratio Chi-Square	df	Sig.
287.811	4	.000

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate[a]

    a. Compares the fitted model against the thresholds-only model.

Tests of Model Effects

	Type III		
Source	Wald Chi-Square	df	Sig.
Ethnic background	268.355	2	.000
Gender	9.173	1	.002
Age on ComDate	3.839	1	.050

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate

Parameter Estimates

Parameter		B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
				Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
Threshold	[Level of Attainment (Final Award)=1]	-3.141	.1246	-3.385	-2.897	635.132	1	.000	.043	.034	.055
	[Level of Attainment (Final Award)=2]	-1.413	.1159	-1.640	-1.185	148.529	1	.000	.244	.194	.306
	[Level of Attainment (Final Award)=3]	.526	.1145	.302	.751	21.114	1	.000	1.692	1.352	2.118
[Ethnic background=1]		-.904	.0653	-1.032	-.776	191.705	1	.000	.405	.356	.460
[Ethnic background=2]		-1.143	.1107	-1.360	-.926	106.593	1	.000	.319	.257	.396
[Ethnic background=3]		0[a]	.	.	.	.	.	.	1	.	.
[Gender=1]		-.147	.0486	-.242	-.052	9.173	1	.002	.863	.785	.949
[Gender=2]		0[a]	.	.	.	.	.	.	1	.	.
Age on ComDate		-.010	.0053	-.021	3.999E-6	3.839	1	.050	.990	.979	1.000
(Scale)		1[b]									

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate

    a. Set to zero because this parameter is redundant.

    b. Fixed at the displayed value.

Model 2 output and interpretations

Omnibus Test[a]

Likelihood Ratio Chi-Square	df	Sig.
164.074	10	.000

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate, Parent HE (First Gen), NS SEC, Acorn Type, Household Income, Polar4, Tariff points (new) [a]

a. Compares the fitted model against the thresholds-only model.

Tests of Model Effects

Source	Type III Wald Chi-Square	df	Sig.
Ethnic background	60.935	2	.000
Gender	9.159	1	.002
Age on ComDate	6.716	1	.010
Parent HE (First Gen)	.466	1	.495
NS SEC	1.703	1	.192
Acorn Type	4.870	1	.027
Household Income	7.663	1	.006
Polar4	1.307	1	.253
Tariff points (new)	7.031	1	.008

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate, Parent HE (First Gen), NS SEC, Acorn Type, Household Income, Polar4, Tariff points (new)

Parameter Estimates

Parameter		B	Std. Error	95% Wald Confidence Interval Lower	95% Wald Confidence Interval Upper	Hypothesis Test Wald Chi-Square	df	Sig.	Exp(B)	95% Wald Confidence Interval for Exp(B) Lower	95% Wald Confidence Interval for Exp(B) Upper
Threshold	[Level of Attainment (Final Award)=1]	-2.206	.3608	-2.913	-1.498	37.365	1	.000	.110	.054	.223
	[Level of Attainment (Final Award)=2]	-.240	.3543	-.935	.454	.460	1	.498	.786	.393	1.575
	[Level of Attainment (Final Award)=3]	1.830	.3558	1.133	2.527	26.453	1	.000	6.233	3.104	12.518
[Ethnic background=1]		-.557	.0882	-.730	-.384	39.843	1	.000	.573	.482	.681
[Ethnic background=2]		-.845	.1546	-1.148	-.542	29.880	1	.000	.430	.317	.582
[Ethnic background=3]		0[a]	.	.	.	.	.	.	1	.	.
[Gender=1]		-.205	.0677	-.337	-.072	9.159	1	.002	.815	.714	.930
[Gender=2]		0[a]	.	.	.	.	.	.	1	.	.
Age on ComDate		.036	.0138	.009	.063	6.716	1	.010	1.036	1.009	1.065
[Parent HE (First Gen)=0]		.049	.0721	-.092	.190	.466	1	.495	1.050	.912	1.210
[Parent HE (First Gen)=1]		0[a]	.	.	.	.	.	.	1	.	.
NS SEC		-.018	.0140	-.046	.009	1.703	1	.192	.982	.955	1.009
Acorn Type		-.005	.0024	-.010	-.001	4.870	1	.027	.995	.990	.999
Household Income		5.363E-6	1.9375E-6	1.566E-6	9.161E-6	7.663	1	.006	1.000	1.000	1.000
Polar4		.032	.0279	-.023	.086	1.307	1	.253	1.032	.978	1.090
Tariff points (new)		.003	.0011	.001	.005	7.031	1	.008	1.003	1.001	1.005
(Scale)		1[b]									

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate, Parent HE (First Gen), NS SEC, Acorn Type, Household Income, Polar4, Tariff points (new)

a. Set to zero because this parameter is redundant.

b. Fixed at the displayed value.

Model 3 output and interpretations

Omnibus Test[a]

Likelihood Ratio Chi-Square	df	Sig.
73.283	12	.000

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate, Parent HE (First Gen), NS SEC, Acorn Type, Household Income, Polar4, Tariff points (new), Overall Attendance, Level of participation (Civic Engagement) [a]

a. Compares the fitted model against the thresholds-only model.

Tests of Model Effects

	Type III		
Source	Wald Chi-Square	df	Sig.
Ethnic background	29.853	2	.000
Gender	3.726	1	.054
Age on ComDate	3.755	1	.053
Parent HE (First Gen)	.157	1	.692
NS SEC	2.849	1	.091
Acorn Type	2.526	1	.112
Household Income	.563	1	.453
Polar4	.009	1	.924
Tariff points (new)	1.282	1	.258
Overall Attendance	5.673	1	.017
Level of participation (Civic Engagement)	5.965	1	.015

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate, Parent HE (First Gen), NS SEC, Acorn Type, Household Income, Polar4, Tariff points (new), Overall Attendance, Level of participation (Civic Engagement)

Parameter Estimates

Parameter		B	Std. Error	95% Wald Confidence Interval Lower	95% Wald Confidence Interval Upper	Wald Chi-Square	df	Sig.	Exp(B)	95% Wald Confidence Interval for Exp(B) Lower	95% Wald Confidence Interval for Exp(B) Upper
Threshold	[Level of Attainment (Final Award)=1]	-2.090	.6393	-3.343	-.837	10.689	1	.001	.124	.035	.433
	[Level of Attainment (Final Award)=2]	-.050	.6302	-1.285	1.186	.006	1	.937	.952	.277	3.273
	[Level of Attainment (Final Award)=3]	2.193	.6335	.951	3.434	11.980	1	.001	8.960	2.588	31.014
[Ethnic background=1]		-.539	.1351	-.803	-.274	15.914	1	.000	.583	.448	.760
[Ethnic background=2]		-.942	.2172	-1.367	-.516	18.791	1	.000	.390	.255	.597
[Ethnic background=3]		0[a]	.	.	.	.	.	.	1	.	.
[Gender=1]		-.193	.1002	-.390	.003	3.726	1	.054	.824	.677	1.003
[Gender=2]		0[a]	.	.	.	.	.	.	1	.	.
Age on ComDate		.052	.0267	-.001	.104	3.755	1	.053	1.053	.999	1.110
[Parent HE (First Gen)=0]		-.044	.1099	-.259	.172	.157	1	.692	.957	.772	1.187
[Parent HE (First Gen)=1]		0[a]	.	.	.	.	.	.	1	.	.
NS SEC		-.036	.0213	-.078	.006	2.849	1	.091	.965	.925	1.006
Acorn Type		-.006	.0036	-.013	.001	2.526	1	.112	.994	.987	1.001
Household Income		2.250E-6	3.0002E-6	-3.630E-6	8.131E-6	.563	1	.453	1.000	1.000	1.000
Polar4		-.004	.0413	-.085	.077	.009	1	.924	.996	.919	1.080
Tariff points (new)		.002	.0018	-.001	.005	1.282	1	.258	1.002	.999	1.005
Overall Attendance		.003	.0013	.001	.006	5.673	1	.017	1.003	1.001	1.006
Level of participation (Civic Engagement)		.198	.0810	.039	.357	5.965	1	.015	1.219	1.040	1.429
(Scale)		1[b]									

Dependent Variable: Level of Attainment (Final Award)
Model: (Threshold), Ethnic background, Gender, Age on ComDate, Parent HE (First Gen), NS SEC, Acorn Type, Household Income, Polar4, Tariff points (new), Overall Attendance, Level of participation (Civic Engagement)

a. Set to zero because this parameter is redundant.

b. Fixed at the displayed value.

Appendix 7- Full acorn list

Acorn User Guide Introduction

1 Affluent Achievers Types

A Lavish Lifestyles
- 1 Exclusive enclaves
- 2 Metropolitan money
- 3 Large house luxury

B Executive Wealth
- 4 Asset rich families
- 5 Wealthy countryside commuters
- 6 Financially comfortable families
- 7 Affluent professionals
- 8 Prosperous suburban families
- 9 Well-off edge of towners

C Mature Money
- 10 Better-off villagers
- 11 Settled suburbia, older people
- 12 Retired and empty nesters
- 13 Upmarket downsizers

2 Rising Prosperity Types

D City Sophisticates
- 14 Townhouse cosmopolitans
- 15 Younger professionals in smaller flats
- 16 Metropolitan professionals
- 17 Socialising young renters

E Career Climbers
- 18 Career driven young families
- 19 First time buyers in small, modern homes
- 20 Mixed metropolitan areas

3 Comfortable Communities Types

F Countryside Communities
- 21 Farms and cottages
- 22 Larger families in rural areas
- 23 Owner occupiers in small towns and villages

G Successful Suburbs
- 24 Comfortably-off families in modern housing
- 25 Larger family homes, multi-ethnic areas
- 26 Semi-professional families, owner occupied neighbourhoods

H Steady Neighbourhoods
- 27 Suburban semis, conventional attitudes
- 28 Owner occupied terraces, average income
- 29 Established suburbs, older families

I Comfortable Seniors
- 30 Older people, neat and tidy neighbourhoods
- 31 Elderly singles in purpose-built accommodation

J Starting Out
- 32 Educated families in terraces, young children
- 33 Smaller houses and starter homes

4 Financially Stretched Types

K Student Life
- 34 Student flats and halls of residence
- 35 Term-time terraces
- 36 Educated young people in flats and tenements

L Modest Means
- 37 Low cost flats in suburban areas
- 38 Semi-skilled workers in traditional neighbourhoods
- 39 Fading owner occupied terraces
- 40 High occupancy terraces, many Asian families

M Striving Families
- 41 Labouring semi-rural estates
- 42 Struggling young families in post-war terraces
- 43 Families in right-to-buy estates
- 44 Post-war estates, limited means

N Poorer Pensioners
- 45 Pensioners in social housing, semis and terraces
- 46 Elderly people in social rented flats
- 47 Low income older people in smaller semis
- 48 Pensioners and singles in social rented flats

5 Urban Adversity Types

O Young Hardship
- 49 Young families in low cost private flats
- 50 Struggling younger people in mixed tenure
- 51 Young people in small, low cost terraces

P Struggling Estates
- 52 Poorer families, many children, terraced housing
- 53 Low income terraces
- 54 Multi-ethnic, purpose-built estates
- 55 Deprived and ethnically diverse in flats
- 56 Low income large families in social rented semis

Q Difficult Circumstances
- 57 Social rented flats, families and single parents
- 58 Singles and young families, some receiving benefits
- 59 Deprived areas and high-rise flats

6 Not Private Households Types

R Not Private Households
- 60 Active communal population
- 61 Inactive communal population
- 62 Business addresses without resident population