



**CLOSING THE DEGREE
AWARDING GAP IN THE BUILT
ENVIRONMENT COURSES IN UK
HIGHER EDUCATION**

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Dedication

Daddy E. O Anumba (in loving memory) and Momsie F.C Anumba

Thanks for instilling in me the value of education.

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Abstract

With increasing world globalisation, university education has taken a new direction having a sharp focus on students and the maximization of their learning experience through their student life cycle and into employment. This involves students getting into higher education (HE), staying in, getting on and moving on. Changes over the years have provided greater access into HE for many underrepresented groups like Black Asian and Minority Ethnic (BAME) students but access has not necessarily translated to equitable outcomes when compared with their white counterparts. This means that there is a gap between the number of UK-domiciled BAME students that obtain a good degree – a first-class honours or upper second-class honours (2:1) and the UK-domiciled white students who achieve the same. This gap is known as the degree awarding gap (DAG).

Although the DAG is well acknowledged in UK higher education, it has largely been unaddressed in the context of the built environment (BE). Likewise, though the BE industry is trying to diversify its workforce (only 5.4% are BAME), the impact of the DAG on BAME graduates from the BE sector has received minimal attention. The near lack of BAMEs in the industry lends credence to the notion that the industry is not completely a meritocracy.

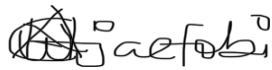
This study aimed to develop a conceptual framework to assist in closing the DAG in the BE sector. It employed a mixed method approach and the research instruments employed to collect data were literature review, questionnaires, semi-structured interviews, and focus group discussions. These instruments were used to collect quantitative and qualitative data (from purposively selected HEIs) for the broad purposes of breadth and depth of understanding and corroboration. Data were analysed using MS Excel and NVivo.

The study identified several measures that are important in addressing this inequality that has a ripple effect on the BE industry and the UK higher education sector and these measures were utilised to develop a conceptual framework. From the study, it is obvious that the contributory factors to the DAG in the BE as in other disciplines of HE be it structural or systemic racism be it lack of role models/mentoring, curriculum content and design, sense of belonging and integration, student experience, leadership and institutional culture. There is an indication of the interaction of policies and practices with culture and systemic privileges in HEIs which perpetuates inequity.

It advocates the elimination of inequity in the sector to better serve an inherently diverse British and global society and argues that with the rapidly changing landscapes in the world, a diverse workforce is indispensable. The BE must maintain disciplinary currency to be better prepared to meet the needs of the diverse society it serves.

Declaration of authorship

I certify that the work contained in this thesis is my original work and to the best of my knowledge, it contains no material previously published or written by another person except where due reference has been made in the text. It also contains no material previously submitted or accepted for the award of any other degree.

A handwritten signature in black ink, appearing to read 'J. A. F. O. B. I.', with a small square mark above the 'i'.

..... (Signed)

29 August 2023

..... (Date)

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Abbreviations

A Levels	Advanced Level
APP	Action and Participation Plan
BAME	Black Asian and minority ethnic
BE	Built environment
BTEC	Business and Technology Education Council
CM	Construction Management
CRED	Commission on race and ethnic disparities
DAG	Degree awarding gap
DfE	Department for education
ECU	Equality Challenge Unit
EDI	Equality diversity inclusion
FE	Further Education
FG	Focus group
GCSE	General Certificate of Secondary Education
GPA	Grade point average
HE	Higher education
HEA	Higher Education Academy
HEI	Higher education institution
HEFCE	Higher Education Funding Council for England
HEIPR	Higher education initial participation ratio
HESA	Higher Education Statistics Agency
HND	Higher National Diploma
KPI	Key performance indicator
ME	Minority ethnic
MM	Mixed methods
NAO	National Audit Office
NUS	National Union of Students
OFFA	Office for fair access
OfS	Office for Students
PGM	People of global majority

RDU	Race disparity unit
SET	Science Engineering and Technology
SU	Students Union
TEF	Teaching Excellence Framework
UCAS	Universities and Colleges Admissions Service
UK	United Kingdom
USA	United States of America
UUK	Universities UK
VAS	Value added score
WP	Widening participation

1. Introduction

1.1 Background to the research

Many higher education institutions (HEIs) in the United Kingdom have identified the problem of continuing differential attainment between undergraduate UK domiciled Black Asian and Minority Ethnic (BAME) students and their white peers (Bhattacharyya *et al.*, 2003; Berry and Loke, 2011; Senior, 2012). This means that there is a big gap between the number of BAME students that obtain a good degree – a first-class honours or upper second-class honours (2:1) and white students who achieve the same. This gap is known as the degree awarding gap (previously termed BAME attainment gap) or achievement gap on some countries like America.

The degree awarding gap (DAG) is a phenomenon that has generated considerable research for many years in the United Kingdom. Initial studies examined the problem of access to higher education (opportunity gap) for the ethnic minorities (attributed to structural inequalities in the society) which led to the widening participation campaign. Pilkington (2015) however argues that the major concern of widening participation (WP) was social class and that BAME opportunity gap was not the main focus. Over the years, the participation rate of BAMEs has greatly increased (OFFA and HEFCE, 2014) and become higher than the rate of the Whites (Richardson, 2010) resulting in their overrepresentation in HEIs. Some of the research into the differential outcomes between BAME students and White students in higher education (HE) have noted that despite the Higher Education Initial Participation Ratio (HEIPR) for BAME students appearing higher than that of white students, BAME students are still less successful than their white peers in the acquisition of 'good' degrees (Broecke & Nicholls, 2007; Connor *et al.* 2004). The DAG also varies significantly within the minority ethnic groups in the UK as BAME is not a homogenous group (Miller 2016).

This disparity in degree outcomes has been observed for over twenty years. According to the Advance HE (2018), 79.6% of UK higher education white students obtained a good degree compared to 66% of BAME students among the 2016-2017 graduates. This represented a DAG of 13.6% points. In 2019, Universities UK (UUK) and the National Union of Students (NUS) reported a little decrease of 0.4% leaving the awarding gap at 13.2 percentage point among 2017-2018 graduates. The gap as reported by UUK (2022) was further reduced to 8.8% for the 2020/21 graduates with 85.9% of UK-domiciled white students being awarded a first or a 2:1. In comparison, only 77% of UK-domiciled BAME students achieved similarly. The awarding gap is narrower in the Science, Engineering

and Technology (SET) subjects than for the non-SET subjects. It is notably wider between the black and white students (18.4%) which is where the largest gap exists.

There is also variation in the DAG awarding gap from one institution to another and between disciplines (Dhanda 2010; Richardson 2015). Despite the DAG being acknowledged widely, many institutions have not yet successfully addressed or prioritised the continuing problem. They still need to go beyond the well-meaning words of policy statements to making the desired change happen. They need to look inwards to identify why BAME students are being awarded these degrees. Richardson (2015) suggests that BAME students in the UK could be coming out with classes of degrees that have nothing to do with their ability.

Furthermore, the expansion of HE has made education 'a lucrative globally saleable commodity which has changed the shape and content of contemporary higher education' (Cowden and Sing, 2016). With this commercialisation of HE, there is a shift of focus to the student and how to maximise their learning experience and equip them with necessary skills for employability. This shift is critical for the built environment (BE) where BAMEs are underrepresented in HE and in the industry.

1.2 Statement of the research problem

One of the key findings from literature review is that the causes of the underperformance of BAME students in the award of 'top degrees' in UK higher education compared to their white counterparts are complex and lack any conclusive explanation (Berry and Loke, 2011). Several factors have been proposed in earlier research as the reasons for the variation in degree attainment between BAME students and white students since the identification of the DAG. In such research, age, prior attainment, subject of study, socio-economic factors and parental attainment were proffered as factors underpinning the gap (Connor *et al.* 2004; Broecke and Nicholls, 2007; Richardson 2008; NUS, 2011; Singh, 2011). Of these factors, prior attainment before HE was cited as being the most significant.

However, subsequent research showed that even after these factors (including entry qualifications) thought to contribute to the DAG have been controlled, the gap is still significant and ethnicity is a notable factor (Bhattacharyya *et al.*, 2003; Connor *et al.*, 2004; Miller, 2016). This is consistent with the UUK and NUS (2019) report that found white students received more 'top degrees' than students of all other ethnicities, even after controlling for entry qualifications. This suggests that there is something occurring within HEIs that contributes to the DAG and cannot be explained by previously proposed causes.

As a result, stakeholders in government strategic policy making bodies and HEIs have been compelled to call for research into the missing link to ensure that the gap is eliminated.

Following the report by UUK and the NUS (2019), UUK looked at the progress made by HEIs three years on and observed that while some changes had taken place (indicated by a reduction in the DAG across the HE sector), white students continued to have a higher likelihood of receiving a first or a 2:1 than BAME students (UUK 2022). They further stated that ‘the continued existence of any unexplained gap is an indisputable inequality for BAME students.’

While the DAG cuts across disciplines and various ethnicities, UUK (2022) found that Architecture, building and planning (according to their common aggregated hierarchy for subject groupings and this is the closest to the BE) was the group with the largest DAG (15.9%) while the HE sector data as a whole had a gap of 8%. Many disciplines have carried out studies on the DAG within their subject areas but there is little on the BE. This and the underrepresentation of BAMEs within the BE necessitate an investigation into the impact of the DAG and the need to eliminate the gap which is ‘an indisputable inequality for BAME students’ and hinders their progression into graduate level employment within the BE industry.

1.3 Rationale for the research

The BE is a sector often used by most governments to achieve their macroeconomic objectives of full employment, housing delivery, and infrastructures and service delivery. Additionally, the sector contributes significant backward and forward linkages with the rest of the economy. The industry underpins the economy and society and has greater impact than most other sectors on communities in the UK (DfBEIS, 2019). Despite much research into differential degree outcomes of students in UK higher education, there is no substantial study of the awarding gap in relation to the BE courses. Much of the available literature on the awarding gap is in the Social Sciences hence there is an urgent need to fill the ‘built environment gap.’ This lapse is accentuated by the fact that the gap is carried forward to the BE industry where BAMEs in the UK are constantly and proportionally underrepresented (Missa and Ahmed 2010; Chaudry, 2014).

The underrepresentation is particularly evident at the middle and senior management levels (Chartered Institute of Personal Development, 2017). Recruitment at these managerial levels and social mobility are often based on the attainment of a degree and

the labour market gives preference to a 'good' degree. The near absence of BAMEs in the industry lends credence to Ross *et al.* (2018) who have called the awarding gap the 'unspoken shame' of UK higher education. This could also be seen as injustice in the award of degrees that limits BAME employment opportunities in the labour market and so contravenes UK legislation against discrimination based on one's ethnicity (Equality Act, 2010). Furthermore, the underrepresentation in the BE industry is a source of concern as HEIs use the number of their students getting into graduate employment as an indicator of their success.

With the number of BAME students in HE constantly increasing, HEIs need to show that they are seriously addressing differential degree outcomes. If BAME students do not have equality of progression, this has a ripple effect on the BE industry and UK higher education which need more diversified workforce.

It stands to reason therefore, that there is an urgent need to explore ways of eliminating the DAG in the BE courses in UK higher education. Moreover, the Office for Students (OfS) which is the HE regulatory body in England has directed the HE sector to eliminate the DAG by 2024-25 (Sellgren, 2019).

1.4 Research aim and objectives

The aim of this research was to develop a strategic framework for UK higher education institutions that addresses the learning experiences and degree outcomes of BAME students in the built environment courses thereby eliminating the persistent degree awarding gap (DAG).

The aim of this research was achieved using the following objectives:

1. To explore and analyse BAME student representation, progression and achievement in the built environment courses in UK higher education in view of the awarding gap;
2. To build an understanding of the issues that BAME students face in BE courses in their learning experiences and to identify possible factors contributing to their degree outcomes;
3. To evaluate at the institutional level, the understanding of the DAG in the BE sector of HEIs and the commitment to addressing the differential outcomes;
4. To investigate possible ethnic bias in the BE sector of UK higher education and the effect of perceived institutional racism on BAME student attainment;

5. To develop and proffer a conceptual framework that will enhance BAME students' learning in the BE and improve their progression and attainment.

1.5 Research Questions

In order to properly address these objectives, the following questions were asked:

1. Is there actually a difference in degree outcomes between BAME students and their white peers in the built environment courses, and if so, what accounts for the awarding gap?
2. What is the impact of institutional understanding of the DAG, teaching methods, curriculum and organizational structure on BAME student progression and attainment?
3. What interventions if any have been put in place to enhance equality of opportunity and outcomes and what impact have the interventions had on differential outcomes?
4. What strategic initiatives can be adopted in addressing the BAME awarding gap to make the desired sustainable change happen?

1.6 Scope of the research

While the awarding gap is a global issue which has attracted numerous research at different educational levels, the scope of this research was limited to HE in the United Kingdom and to BE courses where there is no substantial study of the differential degree outcomes of students and its implications on equitable education and graduate outcomes. The study unit of analysis was the HEI. The major reason for the selection of a single country is the fact that there is no 'one cap fits all' solution in the quest to close the awarding gap and the understanding of the gap varies among countries. A particular educational level and a particular sector were chosen as it is impossible to effectively cover all areas in a single research.

The scope of this research was constrained by the following delimitations:

1. A selection of universities offering BE courses across the country have been used as multiply cases for investigating the phenomenon as not all can be used.
2. Although participants from various student demographics in the BE sector of HEIs were generally recruited, the research focused mainly on students from

BAME backgrounds. Additionally, because most of the data utilised for research into the awarding gap is only available for these students, home BAME students or UK domiciled BAME students have been specifically focused on thereby excluding international BAME students.

1.7 Overview of research methodology

The methodological process for this research was patterned according to the research onion of Saunders *et al.* (2015) to show the processes undertaken to achieve the research aim and objectives.

The philosophical stance for this study was pragmatism which is a middle ground between objectivism and subjectivism; and positivism and interpretivism (Saunders *et al.*, 2015). This philosophical stance was adopted because the research begins with the identification of a problem – the awarding gap in the BE courses in UK higher education and has the aim of eliminating the gap thereby informing future practice. This stance is buttressed by the fact that the research involved many ways of interpreting the multiple realities in the issue of the DAG and the whole picture cannot be seen from a single point of view.

The reality of the ‘surprising fact’ that BAME student do less well in degree outcomes than white students as shown from literature review is a conclusion not a premise and from it, a likely theory can be propounded for causality. This is in consonance with the abduction research approach to theoretical development posited by Saunders *et al.* (2015) which has been adopted for this research.

To achieve coherence in research design, this pragmatic research with an abductive approach was conducted using mixed method (MM) research design which combines the qualitative and quantitative methodological choices to provide depth and breadth and better understanding of the research problem. The quantitative approach gave breadth as it provided many views from which conclusions were drawn. Because of the sensitive nature of some data (for example, experiences and perceptions), the qualitative approach was also adopted to explore depth while maintaining anonymity.

The research strategies adopted which were guided by the research question and objectives, enabled data collection and analysis while reflecting the research philosophy were survey and multiple case study. The survey was chosen for being coherent with the abduction research approach and the exploratory nature of the research. This allowed for the collection of quantitative data. The multiple case study helped to generate insights from intensive and in-depth research into the study of the awarding gap in the built environment

sector of UK higher education in its real-life context (Saunders *et al.*, 2015). Multiple cases provide the opportunity to analyse a phenomenon that has been little considered.

The research instruments used for data capture were – questionnaires, semi-structured interviews with stakeholders, and focus groups (FG) discussions. An analysis of the performance of students in the BE courses over the last five years was evaluated for patterns and trends. The semi-structured basis of the focus groups and the interaction between students revealed personal experiences and provided some contextual meanings to the experiences revealed. Key informants for the qualitative part of the study were identified and recruited using purposive and snowball sampling. These data collection techniques were chosen because they could inform the research about patterns in policies, teaching methods, assessments and achievements and give an understanding of students’ experiences and an insight to any underlying reasons for the awarding gap. The qualitative data generated was analysed using the NVivo software while the quantitative data was analysed using the Microsoft Excel software.

The steps undertaken in the methodology are depicted in the diagram below.

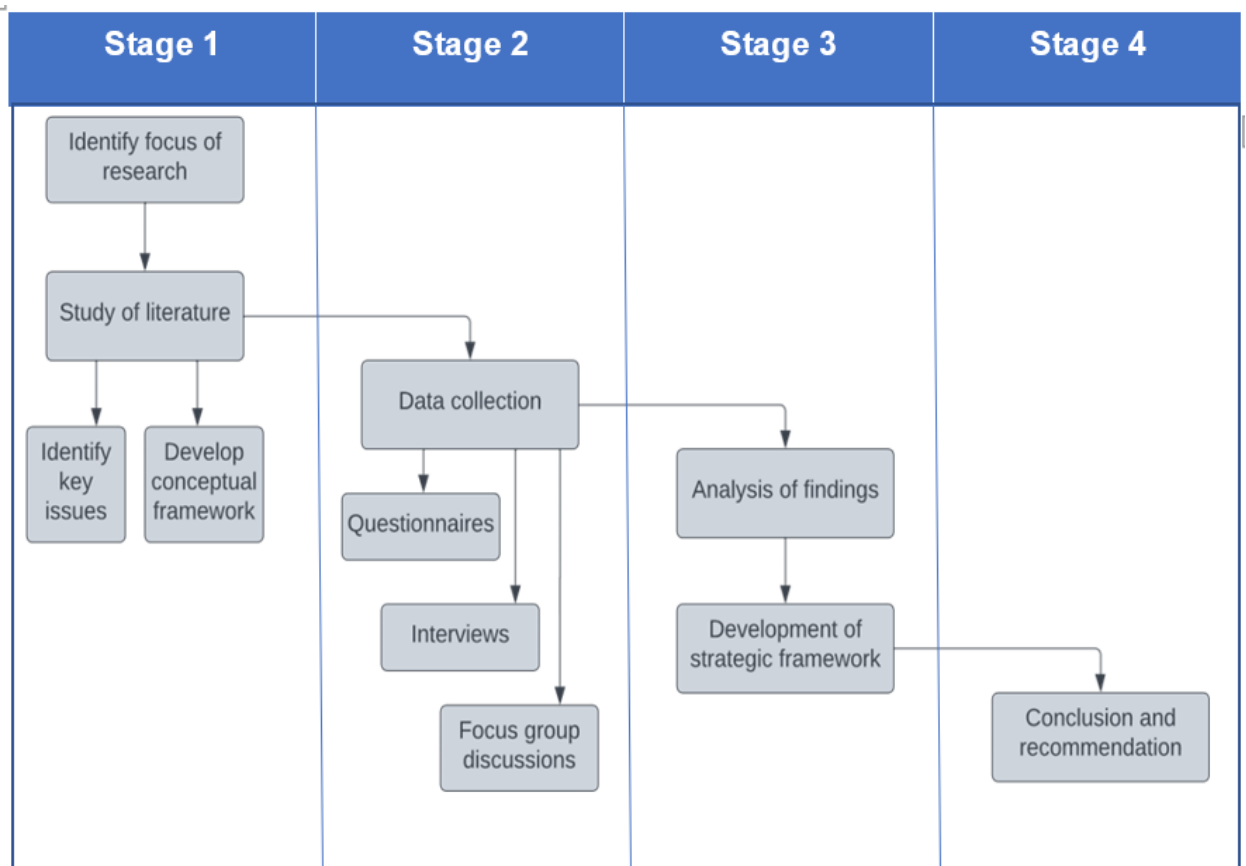


Fig 1.1 Research flow diagram

The table below shows a summary of the study techniques used to accomplish each objective.

Table 1.1 Table for research methodology

Objective	Methods
To explore and analyse BAME student representation, progression and achievement in BE courses in UK higher education in view of the awarding gap	Questionnaires Interviews
To build an understanding of the issues that BAME students face in their learning experiences and to identify possible factors contributing to their degree outcome	Interviews Questionnaires Focus group discussions
To evaluate at the institutional level, the understanding of the DAG in the BE sector of HEIs and the commitment to addressing the differential outcomes	Interviews Questionnaires
To investigate possible ethnic bias in BE sector of UK higher education and the effect of perceived institutional racism on BAME student attainment	Interviews Questionnaires Focus group discussions
To develop and proffer initiatives likely to enhance BAME students' learning and improve their progression and attainment	Interviews Questionnaires Focus group discussions Literature review

1.8 Structure of the thesis

The thesis is presented in eight chapters. Fig 1.2 below provides an illustration of the structure of the thesis.

Chapter One: This gives the background to the research, provides the scope of the research, its aim and objectives, and the rationale for the research. It also provides a summary of the research methodology.

Chapter Two: This chapter presents a review of relevant literature in order to provide the theoretical base on which the research is situated and highlight the gap in knowledge. It also presents an initial conceptual framework for understanding the causes of differential outcomes developed using the emergent themes from literature review.

Chapter Three: The previous chapter reviewed previous literature related to this field of study which is focused on eliminating the degree awarding gap and this chapter provides the context for the BE sector.

Chapter Four: chapter four describes the methodology employed for this research. The research philosophy, methodological choice, strategy, and research techniques are all elaborated upon, along with the justification for the research methodology and ethical considerations.

Chapter Five: In chapter five, descriptive and inferential primary data gathered from the multiple case study through questionnaires, interviews, and focus group discussions are presented and analysed.

Chapter Six: This presents the discussion of the research findings with particular focus on the research questions and previous contextual research.

Chapter Seven: The chapter presents a developed framework for closing the awarding gap and examines the relationship between the initial conceptual framework and the emergent framework.

Chapter Eight: This final chapter of the thesis provides a summary of the research, conclusion and recommendations as well as the limitations of the study. Additionally, it proposes/highlights areas for future research.

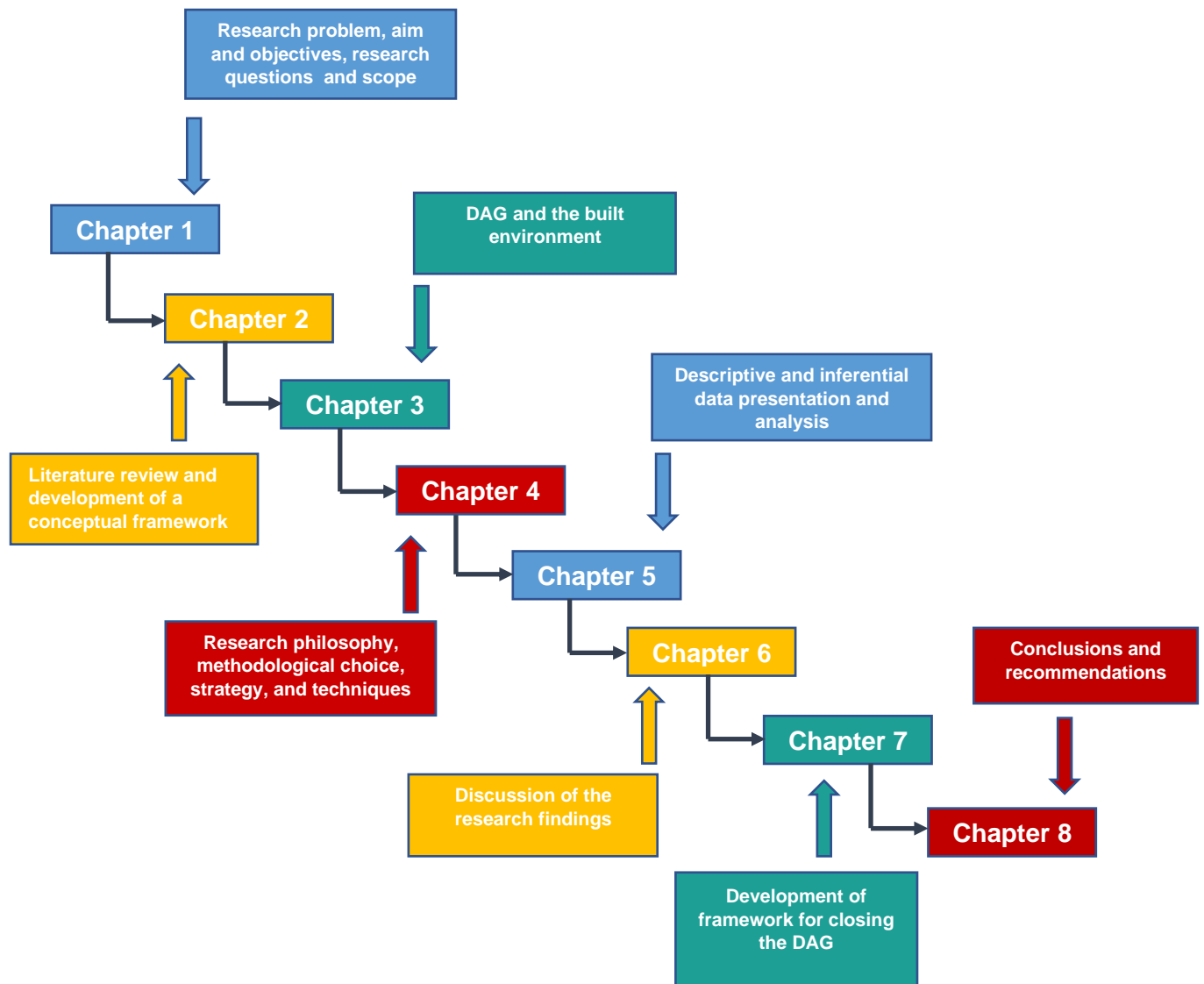


Fig 1.2 Structure of the thesis

1.9 Chapter summary

This introductory chapter provided an overview of the background to the research and the rationale for conducting the research in the BE where the awarding gap has received very minimal attention. This lack of investigation is despite the fact that the awarding gap has a deterrent effect on BAME graduates' ability to progress and procure relevant graduate-level jobs which in turn perpetuates inequity in the sector and in an inherently diverse British and global society. The chapter also outlined the aim and objectives of the research, its scope and the research methodology used for the study.

2. Literature Review

2.1. Introduction to chapter two

This chapter reviews previous literature related to this field of study which is focused on eliminating the DAG. This critical review of literature identifies the gap in knowledge and demonstrates how this study adds to existing body of knowledge. It discusses the DAG, UK higher education and the DAG, and the classification of minority ethnics (MEs). Additionally, it presents a history of the awarding gap, and looks at some international perspectives and some UK universities' initiatives towards the closure of the gap. The review of literature assisted in the development of a conceptual framework from the trends and trajectories in the DAG discourse which informed the development of a strategic framework by the researcher for closing the awarding gap in the BE sector.

2.2. Degree awarding gap

The degree/racial/ethnicity awarding gap is the term used to describe the disparity between the proportion of home BAME students who graduate with a good degree - a first-class honours or upper second-class honours (2:1), and the proportion of white students who achieve the same. Until recently, the gap was termed 'BAME attainment gap' but was changed as 'attainment gap' tended to portray a deficit-thinking instead of emphasising structural inequities. A new term was required because the old one was no longer appropriate. It is more commonly referred to as the achievement gap in some nations, such as the US.

2.2.1 History of the awarding gap

A considerable amount of research has been undertaken in many countries for many years focusing on the causes of the persistent disparity in academic achievement between ME students and students from Caucasian backgrounds. Perhaps the Coleman Report (Equality of Educational Opportunity) of 1966 in America was the wakeup call to challenge the inequality in the education sector and the need to do something about it. Surveys completed by 600,000 students and 60,000 instructors from 4,000 public schools across the country were evaluated by Coleman and his colleagues. The report from the study revealed a very big achievement gap between ME students and white students. It investigated whether the performance of ME students was as a result of their attending lower quality schools than their white peers. The Coleman Report suggested that schools had little or nothing to do with gap, but the gap was mainly as a result of differences between families.

Since the Coleman Report, the achievement gap has been a popular research topic. Different schools of thought have for years critically reviewed that report. Ladson-Billings (2006) called on researchers to take cognisance of other cohorts affecting educational achievement as enumerated by the Coleman Report and shift the spotlight from family background. More than fifty years after the report, American scholars are yet to agree on the effect that schools have on achievement gap (Downey and Condrón, 2016). There is also no consensus on the causes of the gap.

Historically, it is difficult to categorically pinpoint when the discourse on BAME differential attainment started in the UK. The little available literature seems to suggest the medical school was the first in the UK to identify the gap in 1994 when 10 out of 230 students at the University of Manchester Medical School failed their clinical examinations. It was interesting to note that they were all Asians with Asian surnames and had passed their written examinations but failed the clinical (Dillner, 1995). Since then, the awarding gap has been a source of concern for HE in the UK.

2.2.2 International perspectives

The disparity in educational achievement is a phenomenon that is not prevalent in the UK alone. It has also generated much research in different parts of the world particularly in some Organisation for Economic Co-operation and Development (OCED) countries (Mountford-Zimdars *et al.*, 2015). It is however noteworthy that countries differ in their approaches to this disparity in educational achievement.

As noted above, the US was arguably the first country to challenge the inequality in the education sector with the Coleman Report. Popular previous research by sociologists investigated the achievement gap between the middle-income white students and the low-income ME students. One of the key issues affecting the achievement of the MEs in the US is the problem of retention and the US has one of the lowest completion rates among the OCED countries (Mountford-Zimdars *et al.*, 2015). The rate is higher for the more elitist and prestigious universities within the public and private domain. Furthermore, the US education sector has been concerned with the opportunity gap and Milner (2012) posits that the paradigm of research on education has been changed by the concept of opportunity gap. The classification of degrees differs between the UK and the US. In the US, the GPA (a single cumulative number that represents all scores through undergraduate study) is used to rank students (Stevenson and Whelan 2013). But even with a different method of assessment, there is also a disparity in the US between degree outcomes for white students and their ME counterparts with the MEs being less successful.

German discourses are centred around differential progression rather than differential attainment and the focal point is the preliminary stages in education (Mountford-Zimdars *et al.*, 2015). The German tripartite classification for education at the secondary school level necessitates its focus on the inequality of progression by social background.

Similarly, Denmark focuses more on the early stages of education believing that educational inequality should be tackled then rather than at the later stages. The key issue for them is differential attainment orchestrated by social class, ethnicity and gender with the ethnicity and gender frequently combined in analysis.

In the case of Australia, differentials in HE is a key issue in terms of access, retention and progression to employment and the rates of graduation and progression of graduates to employment and postgraduate study is used in evaluating success (Krause and Armitage, 2014). Furthermore, Krause and Armitage posit that a long-standing theoretical relationship between students' participation in academic and social events and learning outcomes is a source of concern for Australian HEIs. As a result of the financial implications, Australian universities are very concerned about student retention.

The evidence of the DAG is consistent with studies in Netherlands which have also observed that there are differential outcomes between the ME students and their white counterparts (Severiens, S. and Wolff, R. 2008). Severiens and Wolff however argue that several studies have been carried about disparity in achievements between the MEs and white students at the primary and secondary levels, but relatively few studies have been conducted at the HE level. They attribute this to the absence of standardised tests in HE.

2.2.3 Awarding gap in UK higher education

Judging by findings from previous studies, many higher education institutions (HEIs) in the UK have identified this problem of continuing differential attainment spanning over twenty-five years (Bhattacharyya *et al.*, 2003; Senior, 2012) and every university has reported it (Advance HE, 2020b; Woolf *et al.*, 2011). It is therefore hardly surprising that the phenomenon has generated considerable research for many years (Richardson, 2015). Initial studies examined the problem of BAMEs' limited access to HE (also called the opportunity gap) which was attributed to structural inequalities in the society. Although this led to the widening participation (WP) campaign, according to Pilkington (2015), the WP's main concern was social class and not the BAME opportunity gap.

2.2.3.1 BAME over representation in HE

BAME participation rates have greatly increased over time (OFFA and HEFCE, 2014) and have surpassed the participation rates of whites (Richardson, 2010; Advance HE, 2021)

resulting in BAME overrepresentation in HEIs. This overrepresentation is however not reflected in prestigious elite institutions in the country which have remained ivory towers. Greater proportion of BAMEs study at the post-1992 institutions (Runnymede Trust, 2010) and WP did not address this.

The figure below shows the gaps in the proportion of 18-year-olds from different ethnic groups entering full-time HE during the five-year period from 2016/17 to 2020/21 compared with their population (OfS, 2022). All ethnic groups had higher representations in HEIs than white students and while the access gap for the whites remained fairly constant in the rate of increase, BAME students' representation constantly increased with Asians having the greatest increase.

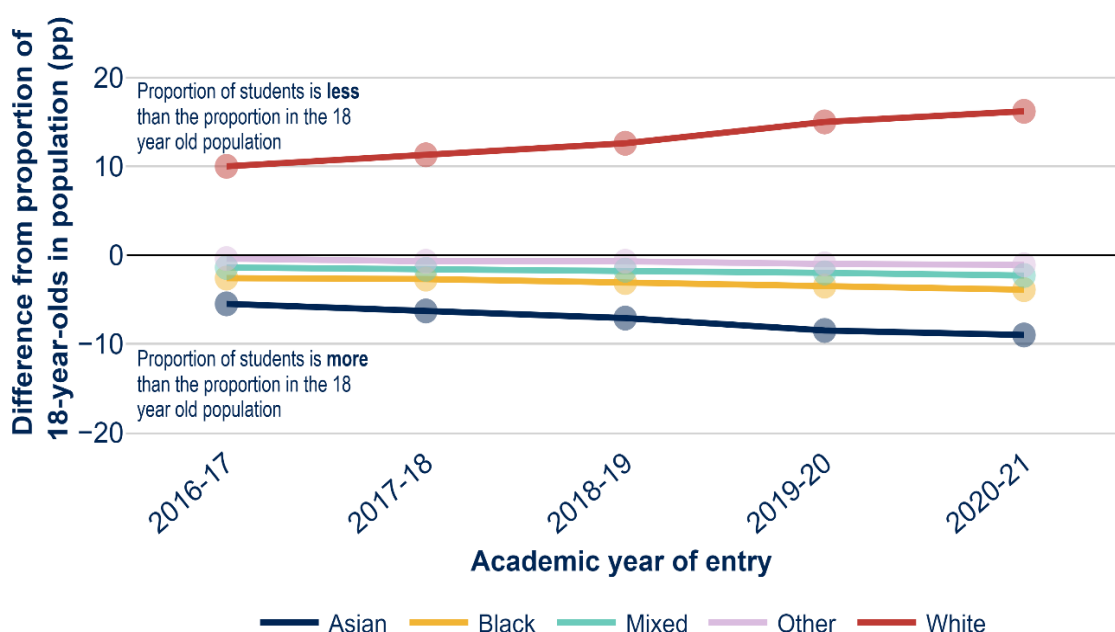


Fig 2.1: Gaps between the proportion of 18-year-olds getting a full-time HE place from 2016/17 to 2020/21 by ethnicity. Source: OfS Access and participation dataset (2022).

2.2.3.2 HEIPR does not equate to higher attainment

Despite the fact that BAME students' Higher Education Initial Participation Ratio (HEIPR) appears to be higher than that of white students, majority of the research into the disparities in outcomes between BAME students and white students have noted that BAME students are still less successful than their white peers in obtaining "good" degrees (Broecke & Nicholls, 2007; Connor *et al.* 2004). The HEIPR is therefore not reflected in the outcomes of their degrees. BAME students underperform when compared to white students. This shows that giving more access to HE does not necessarily translate to

successful progression and the attainment of a good degree. The Office for Fair Access (OFFA) and Higher Education Funding Council for England (HEFCE) in 2014 asserted that getting into the university was not the end of access to HE. Rather, WP should encompass the student cycle with stakeholders striving to improve student access, student success and student progression into further studies or employment (OFFA and HEFCE, 2014).

According to the Advance HE 2021 report, since their 2005 statistical report, the awarding gap has persisted and not much has changed in more than 16 years. However, prior to 2019/20 the average rate of decrease in the gap was 0.3% but between 2018/2019 and 2019/20, the reduction of the gap was 3.4% - the highest decrease ever (see figure below). There was an increase in the number of students awarded a 1st/2:1 across all ethnicities.

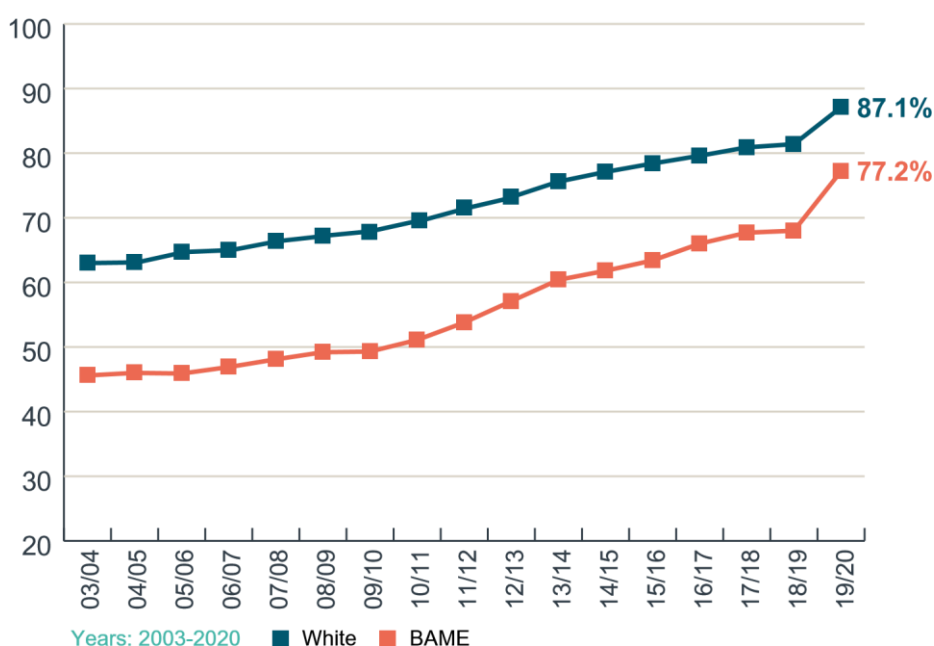


Fig 2.2: Proportion of white and BAME students awarded a 1st/2:1 over time (%)
Source Advance HE (2021).

As illustrated in the figure below, 87.1% of white students were awarded a 1st or 2:1 compared to 77.2% of BAMES in the 2019/20 academic year. It shows an awarding gap of 9.9 percentage points. Much of the variation comes from the difference in the number of qualifiers coming out with a first-class degree (28.7% BAMEs and 38.9% whites) which represents a 10.2% gap. It is interesting to note that there is great similarity in attainment within the 2:1 classification (48.5% BAMEs and 48.2% whites) with BAME students having an advantage point of 0.3%.



Fig 2.3: Proportion of BAME and white students awarded a first or 2:1 in 2019/20 (%).
Source: Advance HE (2021)

The cause of the significant reduction in the awarding gap in the academic year 2019/20, which was significantly impacted by the pandemic, remains unknown. Perhaps it could be due to the ‘no detriment’ policies universities had to adopt, the teaching methods and ways of calculating grades which also changed. Advance HE (2021) suggests that it might be due to the assessment methods employed within the period or the clamour around the world for equality orchestrated by the protests that took place during that time.

2.2.3.3 Variations in attainment across BAMEs

Since BAME is a heterogenous group, there is a variation in the attainment profile within the BAME groups in the UK (Miller 2016; Advance HE, 2021). ECU (2016) reports that those of Chinese heritage appear to perform better, followed by those with Indian and Pakistani heritage while those of Black African, Black Caribbean and Bangladeshi backgrounds do least. In addition, Richardson (2008) postulates that the awarding gap is greater for the more mature BAME students than the younger ones, greater in women than in men and greater in those who undertook part time studies than those who studied full time. In comparison with white students, Richardson overall found the gap consistent and statistically significant irrespective of gender, subject, age, institution, or mode of study.

In the findings of Advance HE (2021), the discrepancy continued over time for all BAME categories after the data was broken down into more specific ethnic groups. The gap was greatest between the white and Black qualifiers (18.6%) and least between the white and Chinese qualifiers (2.5%). As a result of the greater gap between white and black

qualifiers, the OfS's access and participation targets for universities includes specifically reducing the degree outcomes disparity between black and white students.

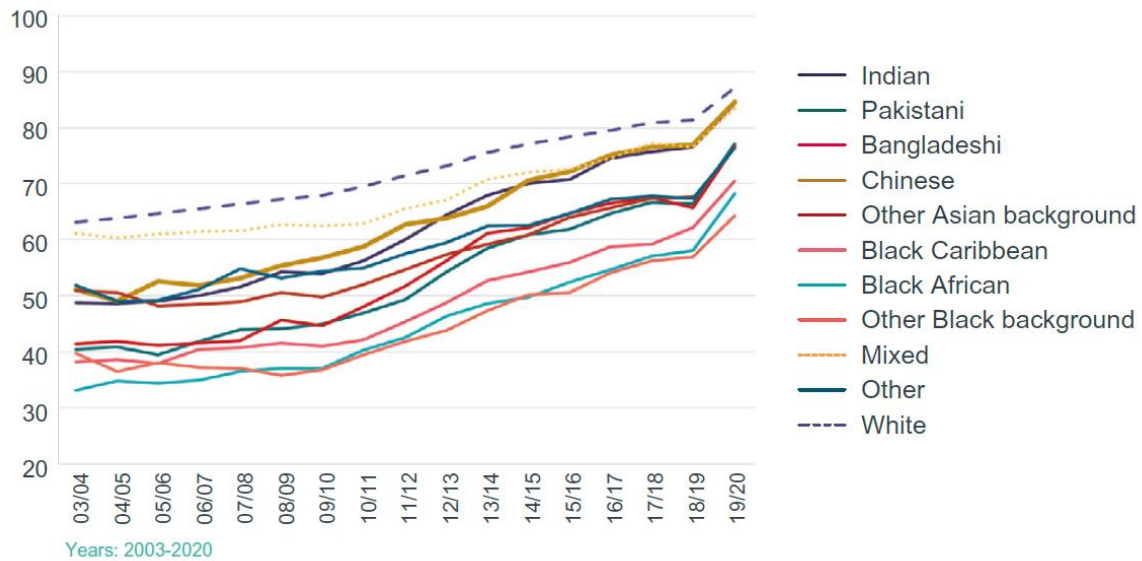


Fig 2.4: Proportion of students awarded a 1st/2:1 by ethnic group over time (%)
Source: Advance HE (2021).

According to OfS (2022), the awarding gap between white and black students decreased in the academic year 2020/2021 to 17.4% (a difference of 7.3% from 2015/16) as a result of the greater increase in the attainment of black students. In addition, OfS (2022) notes that the awarding gap was seen across nearly all HEIs and in 97% of 106 HE providers, black students had a lower attainment rate than white students. The gap varied generally between 15 and 20% points, as indicated in the graph below, with certain providers having a larger gap.

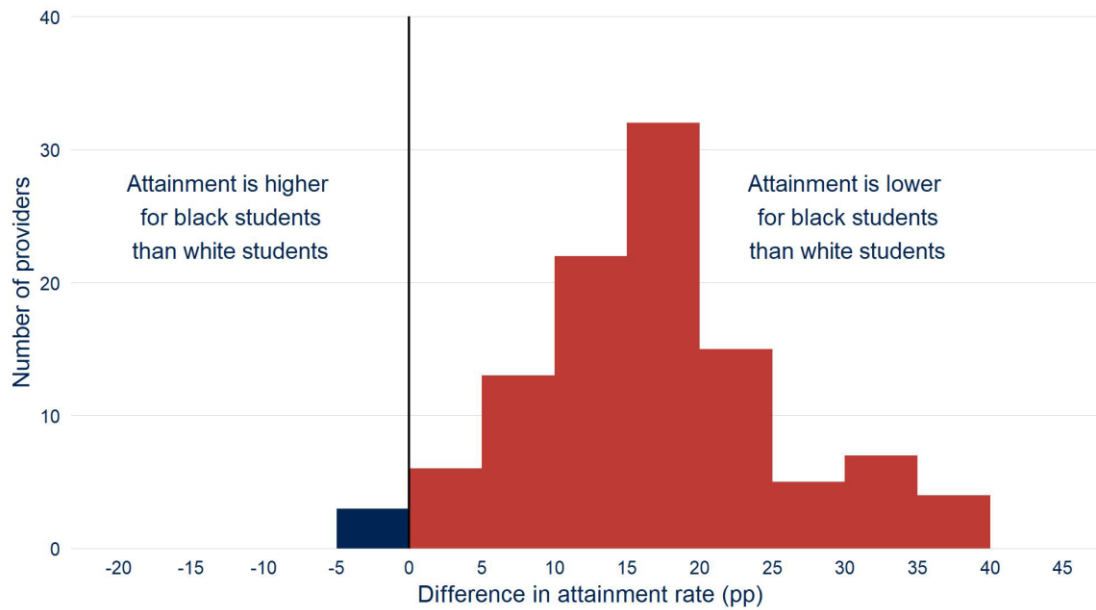


Fig 2.5 Gaps in full-time attainment rate between white and black students across providers
Source: OfS Access and Participation (2022)

Note: This bar contains all HE providers with increases greater than 100 and with more than 500 entrants based on 135 providers registered with OfS.

2.2.3.4 Variations across institutions and disciplines

The awarding gap also varies considerably from one institution to another and between disciplines (Dhanda 2010; Richardson 2015 and Advance HE, 2021). The disparity is broken down by subject area and a broad ethnic categorisation in Table 2.1 below (Advance HE, 2021). The BE (highlighted in green) is presented under the Architecture, building and planning subject area and the gap is big for all ethnicities. It shows that the gap is less (2.1%) between the Asians (17.6%) and Blacks (19.7%) compared to the general figure for BAMEs across the disciplines (Asians 2.8% and Blacks 18.7%) which gives a gap of 15.9% (Advance HE, 2021). The gap is also big for the mixed category and biggest for the 'other' category. THE mixed category refers to students of mixed heritage while 'other' refers to the other ethnic categories not covered by white, black, Asian and mixed.

Table 2.1: 1st/2:1 awarding gaps by detailed subject area and broader ethnic categories (% points)

Subject area	Asian	Black	Mixed	Other
<i>DAGriculture, food and related studies</i>	-2.1	17.4	1.2	**
Architecture, building and planning	17.6	19.7	9.8	21.4
<i>Biological and sport sciences</i>	6.7	23.8	5.4	7.0
<i>Business and manDAGement</i>	8.8	18.1	6.2	12.9
<i>Combined and general studies</i>	20.1	22.5	**	**
<i>Communications and media</i>	11.0	20.9	18.4	2.3
<i>Computing</i>	3.5	12.7	2.8	11.4
<i>Creative arts and design</i>	14.5	14.5	19.4	3.5
<i>Education and teaching</i>	14.1	23.6	6.0	14.3
<i>Engineering and technology</i>	4.8	13.6	5.6	10.2
<i>General and others in sciences</i>	1.3	**	3.9	**
<i>Geographical and environmental studies (natural sciences)</i>	3.4	16.7	0.0	**
<i>Geographical and environmental studies (social sciences)</i>	1.5	9.7	4.0	**
<i>Historical, philosophical and religious studies</i>	4.4	9.5	-0.4	4.8
<i>Humanities and liberal arts (non-specific)</i>	10.6	**	-0.2	**
<i>Language and area studies</i>	7.7	15.8	1.8	11.6
<i>Law</i>	9.0	17.4	5.3	7.0
<i>Mathematical sciences</i>	3.1	12.5	3.0	-1.7
<i>Physical sciences</i>	3.6	11.3	2.5	5.7
<i>Psychology</i>	8.0	20.2	4.1	13.4
<i>Social sciences</i>	6.6	20.3	1.6	7.6
<i>Subjects allied to medicine</i>	4.4	17.7	6.3	4.3

The awarding gap is narrower in the Science, Engineering and Technology (SET) subjects than for the non-SET subjects (8.2%:11.1%). This is also true for specific BAME groups apart from the mixed group which has a narrower gap for the non-SET subjects than SET subjects as can be seen in the figure below. Huge variations in subjects are concealed by the classification of the subjects at the SET and non-SET levels, as shown by the discrepancy of 8.2% using SET and 17.4% (non-SET) found specifically in building and planning (Advance HE, 2021).

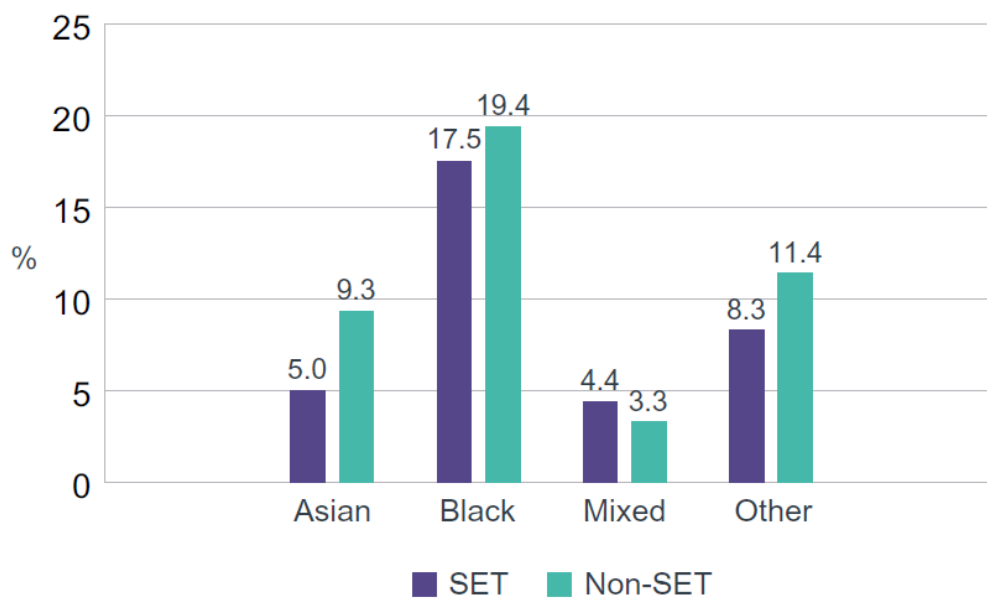


Fig 2.6: 1st/2:1 awarding gaps (%) by subject area (SET/non-SET)
Source: Advance HE (2021).

The awarding gap is also noticeably wider between full time and part time students for all ME groups (Advance HE, 2021) as illustrated in in Fig 2.7 below. More full time BAME students were awarded a 1st or 2:1 compared to part time students across ME groups.

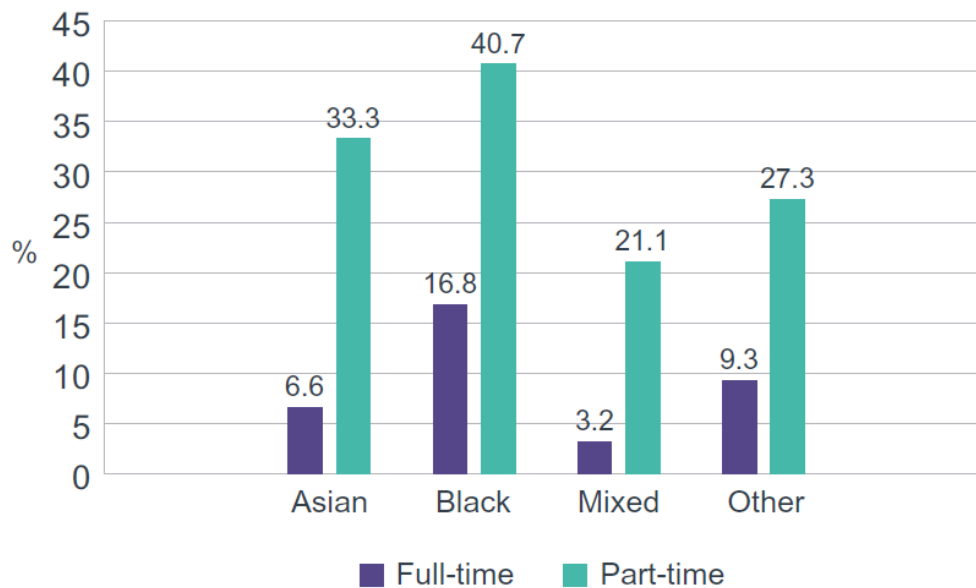


Fig 2.7: 1st/2:1 ethnicity awarding gaps by mode of study (% points).
Source: Advance HE (2021).

2.3. Black Asian and minority ethnic (BAME)

Several terms have been used to collectively address the range of minority ethnic groups in the UK but Black and Minority Ethnic (BME) and Black, Asian Minority Ethnic (BAME) are the most common and are used interchangeably. Between the 1950s and 60s, minority ethnics (ME) of African and South Asian ancestry were termed ‘coloureds.’ Later (late 1970s), due to the groups’ shared experiences of racial discrimination and their desire for solidarity in the common quest for racial equality, the collective term “blacks” was employed (Mistlin, 2021). But when the makeup of ME groups in the UK changed, the political blackness term ‘blacks’ was rendered obsolete therefore requiring a new term.

The use of the term non-white (also previously used) has been frowned upon by many MEs as it implies that people who are not white can only be referenced by whiteness while whites are for example, never classified as non-blacks or non-Asians (Bunglawala, 2019). The term BME was more acceptable, and its origin goes back to the anti-racist movement of the 1970s (Sandhu, 2018) and it is commonly used in the UK to describe people of non-white descent (Institute of Race Relations, 2019). Up until BAME made a debut, BME was the term of choice. The use of the term BAME came into use in recent years as a result of some people being unhappy to be lumped together under the term BME which they claimed gave prominence to Afro-Caribbeans (Sandhu, 2018). By 2020, it had gained more frequency in usage than BME (Aspinall, 2020). The acronym gained wider acceptance in the UK as a useful and catchy abbreviation and more organisations and

government establishments adopted its use in preference to the acronym BME. It has also made its way into the Oxford Advanced Learner's Dictionary according to which 'BAME can be a useful term in official contexts, for example when collecting statistics.'

Although the term BAME has become a catch-all term for ME, it is problematic with many seeing it as too simplistic, exclusionary, misleading, divisive and unrepresentative. This is demonstrated by the term's implication that the group—which combines a number of minorities with varying unique experiences, distinct culture and perspectives—is homogeneous. This can lead to misinterpretations of data and can be used to hide the underrepresentation of some ME groups in organisations as racial diversity goals can still be achieved while certain groups do not have any significant representation (Malik *et al.* 2021). Disparities in degree outcomes between BAME groups are an example of data or information that is frequently concealed under the term BAME. Again, the challenges that ME groups encounter can vary and there is not a level playing field even among the ME. Some minority groups are targeted by other minority groups all within the BAME umbrella. Additionally, the acronym BAME singles out and emphasises blacks and Asians and combines other categories of ethnicity while ignoring the white ME such as, Gypsy, Roma and Irish Traveller groups (RDU, 2022). So, for minorities other than blacks and Asians, there is a further marginalisation in the term being used to identify them.

This BAME 'othering' and classification has been seen as very offensive by ME groups who have had to struggle over a long period of time to get representation in the UK (Malik *et al.* 2021). Many do not see BAME as reflective of them (Bunlawala, 2019) and many people still do not know what BAME or BME stands for. When Zamila Bunlawala, a deputy director of the Cabinet Office's Race Disparity Unit (RDU), conducted a study involving roughly 300 people from all over the UK, she discovered that only a very few of the respondents recognised the terms BAME and BME and just one respondent knew what the terms actually meant (Bunlawala, 2019).

Based on the problems associated with the term BAME, the UK government, some government organisations including the Office for National Statistics (OfNS) and the Cabinet Office, as well as the media, have demanded that the term "BAME" be dropped within their organisations. According to the RDU (2022), the term BAME will no longer be used in government, and this is in line with the recommendation of the Commission on Race and Ethnic Disparities (CRED) in its 2021 report to the government. In a 2022 government response to CRED 'Inclusive Britain,' the term BAME is described as aggregating 'based on skin colour rather than more appropriate classifications, overlooking other key factors that may be shaping people's life chances.' The government response

also tasked RDU to 'engage with people from different ethnic groups to better understand the language and terminology that they identify with' and to 'encourage responsible and accurate reporting on race issues.'

The University of West England (UWE), Bristol is one of the first universities to announce that it is dropping the term BAME in favour of specific terms in identifying people's ethnicity. The university's dedication to one of its core values, inclusivity, is reflected in this decision, according to Professor Paul Olomolaiye, Pro Vice Chancellor for Equalities and Civic Engagement at UWE (University of West England Bristol, 2022). He also noted that the acronym BAME does not represent anyone and that most ME did not identify with the acronym "which evolved out of nowhere." Prof. Olomolaiye's explanation of the evolution of the term "BAME" is consistent with a report by Birmingham City University's Sir Lenny Henry Centre for Media Diversity, which claimed that 'at the core of the issue is a power dynamic; a power dynamic between those who have the power to label and those who are labelled' (Malik *et al.* 2021). May be that is why other ethnic identities are constructed/categorised around white normativity.

What then should be used in its place if the acronym "BAME" is now deemed no longer fit for purpose? An alternative term that is frequently used in America is "people of colour." Invariably, there are problems with this term as well because it raises the question of whether non-whites are the only ones who have a colour. If non-whites are people of colour, then what are whites? And why do racial classifications prioritise whiteness and other ethnicities are seen as deviations from the norm? While some have argued in favour of the term 'ethnic minority,' others counter that it places a focus on ethnicity as the primary concern and portrays ethnicity as 'non-white' when in fact 'white' is an ethnic group (Advance HE). This leads to additional discriminatory issues, such as allusions to 'ethnic clothes, ethnic food,' while no one references fish and chips or suits as ethnic food or ethnic clothing. Since everyone, including a white person, has an ethnicity, the term 'minority ethnic' is preferred by others because it places the emphasis on being a minority rather than the ethnicity. More recently, people have questioned and called a misnomer the use of the word 'minority' to identify people who are the global majority (Singh, 2021). People of global majority (PGM) or Black and global majority (BGM) are emerging terms which emphasize the fact that non-white people make up the majority of the world's population. However, it is this global majority that is being racially minoritized.

Finding a name that accurately captures the diversity of ME groups may never be possible, and what is considered acceptable today may no longer be so in the future as language constantly changes and evolves. Many MEs would like to be addressed more precisely as

a single group/specific ethnic classification (RDU, 2022). However, this can be problematic as some groups are too small for statistical significance. RDU (2022) advises the use of more precise language as that will give more detail about disparities, what caused them and those affected most by it so that governments and relevant bodies are better informed in the quest to close gaps. For the purpose of this research, the term BAME has been employed as it is still more widely used and to be consistent with public organisations that have adopted the term whose data/information the study utilised. The term refers to persons who are not white - Blacks, Asians and so forth, or belong to a ME group. Furthermore, the researcher by using the term BAME recognises the issues with that being seen as a noun and a means of 'othering' rather than an abbreviation. Therefore, wherever the abbreviation is used, it stands for Black Asian and minority ethnic(s) and not as a noun which is offensive to some.

Students are usually requested while enrolling at universities to identify their ethnicity based on the classification used for UK census. This information is what the Higher Education Statistics Agency (HESA) uses to compile student records and data for different purposes. Ethnicity in modern UK is quite diverse and is interpreted differentially by individuals. The focus of this research was mainly minorities from the Black and Asian backgrounds. The research also focused on BAME home students or UK domiciled students as most of the available data and used for investigation on the DAG is available for these students only.

2.4.1 Higher education providers

HE providers in the UK can be categorised into three main groups (EuroEducation.net) - higher education institutions (HEIs), further education institutions and alternative providers.

2.4.1.2 Higher education institutions

According to EuroEducation.net (<https://www.euroeducation.net/prof/ukco.htm>), a HEI is defined as:

- a university – Not all HEIs are permitted to use this title because it is governed by law. The Privy Council may grant the title to an institution, or approval may be acquired in accordance with the terms of the Companies Act of 2006 (EuroEducation.net). There is a requirement that such an institution should have at least 1,000 full time students. Public funding provides a lot of funding for many universities which are independent.
- an institution run by a HE corporation

- an institution that has been approved to receive funding from the Higher Education Funding Council of England (HEFCE)

Where HEIs do not have the authority to confer degrees, the courses provided by such institutions will be accredited by the HEIs who do.

Since most HEIs that offer BE courses are universities, any reference to HEIs in this study, means universities.

2.4.1.3 Further education institutions

Further education (FE) colleges in the UK are funded by the government through the HEFCE or through franchise provide access to courses, diplomas at higher education level and sometimes Bachelor's degrees (British Council). These institutions are funded by the government through HEFCE or through a franchise. Degree courses offered by FE colleges are designed and accredited by degree awarding institutions in partnership with the colleges.

2.4.1.4 Alternative providers

Alternative providers are independent or private institutions that do not receive any government funding from the OfS (England) or comparable organisations for other regions of the UK and are not further education institutions. These organisations may or may not be for profit.

2.4. UK higher education

After primary and secondary school, HE is the third level and final form of formal education that can be obtained in the UK and students normally get into HE from the age of 18. Unlike primary and secondary education which are compulsory, HE is optional and encompasses undergraduate and postgraduate studies the completion of which results in the awarding of academic degrees as a kind of certification. Prior to a 2011 reform, HE included all education undertaken after secondary school. Now, it mostly refers to university-level education (HESA, 2023), and any post-secondary study that is not taken as part of an undergraduate or graduate degree is categorised as further education (FE).

FE is undertaken at FE colleges. Unlike the US where there is no distinction between the terms 'college' and 'university' and both are used interchangeably, college in the UK mainly refers to a provider of FE which prepares students for acquiring degrees at universities while universities are licensed institutions that provide degrees.

The Department for Education (DfE) is responsible for overseeing HE and other levels of education in the UK. Pupils take standard examinations - A Levels or BTECs and

equivalents to get into HE which lasts between one and four years and includes foundation degrees, Higher National Diplomas (HND), undergraduate degrees, apprenticeship degrees, and postgraduate degrees. The quality of UK higher education is recognised globally, and several UK universities consistently rank among the best in the world (GOV.UK, 2022).

2.4.2 Degree classification

Undergraduate degree classification in the UK are generally categorised into first-class, upper second-class, lower second-class and third class. When a student does not meet the requirements for any of the classes, a pass may be awarded. Even the terms first-class, second-class, and third-class arguably denote a system of segregation and superiority created in an elitist era that placed emphasis on who was superior to whom. There have been changes to UK degree classifications, most notably the switch from a norm-based classification to a criteria-based classification in the 1990s (OfS 2022). The norm-based approach evaluated students' performance in relation to their peers taking the same course, whereas the criteria-based system evaluates students' performance in relation to the course's curriculum. Using the norm-based system, the percentage of graduates in England who received a first-class between the 1960s and 1995 barely changed at 7.3%. In comparison, the percentage rose to 37.7% in 2020–2021. This cannot all be attributed to grade inflation therefore the norm-based system clearly had a negative impact on students and their degree outcomes.

With all the debate about grade inflation, the pre-pandemic steady increase in the number of qualifiers awarded firsts, and the effect of universities policies on degree outcomes during the pandemic, the OfS questions whether the UK degree classification system is still fit for purpose (OfS, 2022).

Perhaps a new degree classification system is needed?

Perhaps the adoption of a no classification system as in medical schools would help?

2.4.3 HEIs and the awarding gap

As noted earlier in chapter one of this thesis, many HEIs in the UK have identified the problem of continuing differential attainment between UK domiciled BAME students and their white peers. One of the major findings from literature is that as most research show, after a wide range of factors (including entry qualifications) thought to contribute to the degree awarding gap have been controlled, the gap is still significant, and ethnicity is a notable factor.

The number of BAME students in HE is increasing steadily with growing global population, the internalisation and globalisation of education, and the present climate in UK higher education and outside pressures are bringing about a surge of interest in HE making it of high currency. This implies that HEIs need to look inwards to identify why BAME students are being awarded these degrees and examine barriers that affect BAME students' learning experiences, their progression and achievement, which often make them lose the transforming power of HE. Richardson (2015) suggests that BAME students in the UK could be coming out with classes of degrees that have nothing to do with their ability. In line with this, universities have been consistently asked to close the awarding gap - the OfS has directed the HE sector to eliminate the awarding gap by 2024-25 (Sellgren, 2019).

In addition, greater public investment in HE demands that HEIs be more accountable which is not very congruent with the traditional notion of freedom found in HEIs (Layer 2016). People have also become critical of the traditional forms of knowledge in traditional organisations like HEIs which keep reproducing inequalities and differential degree outcomes that inhibit BAMEs in the procurement of relevant and sustainable graduate-level jobs as well as in the pursuit of further studies.

This is particularly true and important for the demographically skewed BE industry which despite having a widely acknowledged significance in the country and a big share of over 9% of the UK workforce (BEIS 2019), has the worst record for BAME and women employment (Gale et al. 2003). The preponderance of BAME students in the BE sector of HE (CABE 2005; CEMS 2002) does not translate to equitable outcomes for them, and most do not end up in the sector as many graduate-level jobs have 2:1 and first-class as a minimum entry requirement and many BAME students fall short of this requirement. If BAME students do not have equality of progression, this has a ripple effect on the industry and UK higher education which also needs to increase the pool of its BAME academics.

2.4.4 Covid-19 pandemic and the degree awarding gap

COVID-19 orchestrated an emergency transition to online learning, greatly impacted HEIs and learning processes and highlighted digital inequality/poverty with the attendant risk of leaving some students behind. It accelerated blended learning and made digitization a critical resource. Therefore, many HEIs provided hardship funds or laptops for students who were digitally disadvantaged to ensure that they were not left behind. This implied that online learning which was previously a choice, and a prerogative of the Open University termed a disruptive characteristic by Andrade (2018) became mainstream with the capability of transforming curriculum and learning. Based on this, many universities introduced the 'no detriment' and 'safety net' policies to mitigate the exceptional

circumstances brought about by the pandemic and to ensure that no students were disadvantaged.

The OfS (2022) indicates that a significant increase in degree classifications (particularly in firsts) within the period has coincided with these changes in policies and assessment introduced by universities to reduce the impact of the pandemic thereby making many wonder if there was some element of grade inflation. Some may argue that universities did not all use the same strategy so each university will have experienced the effects of these modifications differently. That notwithstanding, there was a great increase in the number of firsts and 2:1s across the board and arguably there is no clear explanation for this. This increase is not consistent with a study conducted by Richardson (2012) which investigated whether the DAG was affected by the introduction of online tuition at the Open University. The participating students opted for either face-to-face tuition or online tuition and the study concluded that the use of online tuition did not increase or reduce the DAG. While this increased number of good degrees has raised concerns for the OfS about the devaluing of university degrees, universities have argued that improvements in access, teaching and assessment rather than grade inflation are responsible for the increase.

The number of graduates receiving a 1st or a 2:1 has steadily increased over time, as shown in Figure 2.8 below, although the highest increase occurred during the pandemic and more specifically with the issuance of first-class (OfS 2022). The number of graduates receiving a first continued to rise from 15.7% in 2010/11 to 28.9% in 2017/18 as did the number of graduates receiving a 2:1 until 2013/14, when it started to decrease by 2%. In comparison, the number of graduates awarded 2:2 or below steadily decreased (11%) over time with a sharp drop between 2018/19 and 2019/20. OfS has argued that the observed annual increase in the award of top degrees stalled with very little change in 2018/19 for all categories because they had expressed concerns about grade inflation in the publication of their earlier analysis (OfS 2022). The pandemic year 2019/20 saw a massive number of graduates awarded 1st (35.9%), a slight decrease in the number of 2:1 and also a slight decrease in the award of 2:2s or below. The OfS analysis furthermore shows that this increase in 2019/2020 was greater among the blacks than the whites. Compared with the previous academic year 2018/19, the proportion of white students gaining a 1st or 2:1 increased by 4.3% while for black students the increase was 8.1%. The number of firsts increased slightly in 2020/21, whilst the number of 2:1 and 2:2s or lower decreased marginally.

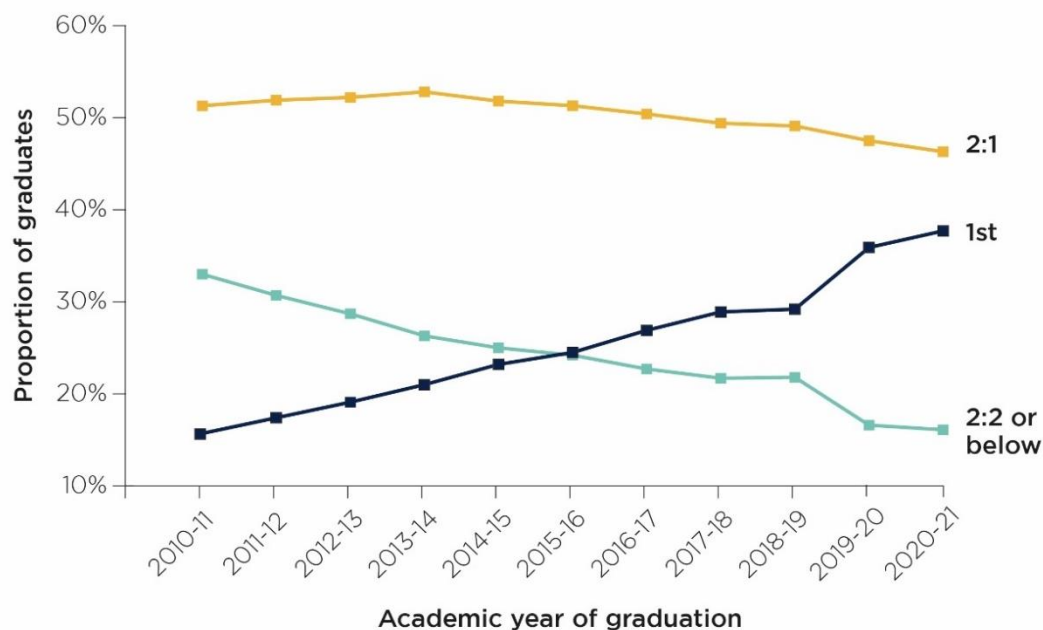


Fig 2.8 Degree classifications over time
 Source: OfS (2022)

2.4.5 Universities and grade inflation

In 2019 prior to the outbreak of the pandemic, OfS had called on universities to address grade inflation in order to maintain the credibility of UK degree classifications (Lapworth 2019) and the reputation of English HE. This was necessitated by the steady increase in the number of higher degree classifications (especially firsts) awarded to students over the years particularly in the last few years. According to figure 2.8 above, the percentage of firsts given doubled between 2010/11 and 2020/21, going from 15.7% to 37.9%. Adding the proportion of students who received a 2:1 within the last ten years demonstrates that four out of every five students left HE with a 1st or a 2:1. The overall pattern of change in degree classifications seen in England within the past few years is consistent with that seen in the other UK countries (OfS 2022).

As noted above, the pandemic year 2019/20 saw a massive number of graduates awarded firsts which impacted greatly on the awarding gap's reduction and this increase was mainly among black students. The effect of a big increase in the number of black graduates receiving a 1st is significant because the awarding gap has historically been highest between white and black students. The OfS contends that the increase in the proportion of black students receiving high-quality degrees, rather than universities addressing the causes of the gap's persistence or historical grade inflation for white students or all students is the reason for the magnitude of the reduction in the awarding gap.

The government has repeatedly called for universities to tackle grade inflation and has requested through the Department for Education (DfE) that the OfS steps in. As a result, the OfS has once more requested that universities investigate grade inflation since it is a critical issue which if not addressed could undermine public faith in UK's world-class HE reputation (OfS, 2022) and a significant proportion of the increase remains unexplained in 73% of universities in England. In line with the OfS, Universities UK (UUK), which has 140 member institutions, has taken up the cause of grade inflation, stating that from the beginning of this millennium, there has been a continuous rise in the percentage of students receiving a 1st or 2:1 which can diminish the value of a UK degree (UUK 2022). UUK also asserted that receiving a degree should be the result of years of perseverance, hard work and dedication. According to the OfS analysis, the highest proportion of firsts awarded were from top universities. For instance, University College London awarded more than 40% of its student firsts and 54.7% of Imperial College graduates received top degrees.

Despite the charges made by the OfS, universities have insisted that grade inflation is not responsible for the rise in higher classifications, but rather improvements in access, teaching and assessment. This is reinforced by UUK (2022) stating that some of the increases in firsts and 2:1s reflect genuine student improvements and better teaching methods and assessment. Although UUK argues that it would be wrong to artificially cap outcomes in order to stop a rise in the award of top degrees, they however agree with the OfS that increases should be explicable. In cases where this is not possible, universities should look at their data and policies for comprehension and reverse the trend if required.

UUK further responded to concerns about grade inflation by noting that measures taken during the pandemic to ensure that students were not disadvantaged unduly were appropriate but only temporary (Fisher 2022). It has pledged to revert by 2023 to the levels of firsts and 2:1 awarded before the pandemic, stating that failure to do so poses a significant threat to the value of degrees.

2.4.6 Commercialisation of HE

The increase in higher classification of degrees has been a trend since the later part of the 20th century, according to the OfS, and it is not peculiar to the UK (OfS 2022). Countries like the USA and Germany have observed similar trends, and this has been attributed to the commercialisation of HE. Globally, HE has become a saleable commodity and a very profitable one with students as consumers, education as the product, lecturers as service providers and the university as the sellers and the marketplace.

In order to avoid being penalised by the league table if students are not performing well, universities therefore seek to satisfy their clients. Due to this commercialization of education, students invariably expect HE to be a route to good graduate employment at the conclusion of their studies. Conceivably, HEIs are having to work hard to strike a balance between meeting this expectation and having a good league table position without compromising degree values.

As previously mentioned, while the disparity within the 2:1 category shrank, ethnic attainment differences over the past ten years were more prominent and stagnant for firsts. Curiously, the introduction of £9,000 per year in school fees in 2010 seems to have had a significant impact on the growth in firsts awarded.

2.5. Framework for understanding the causes of differential outcomes

Three levels of influences were proposed by Mountford-Zimdars *et al.* (2015) as the foundation for the variations in degree outcomes for various student groups. They have classified these three levels as being at the micro, meso, and macro levels. While the micro level deals with the interaction between individual students and staff in the HEI, at the meso level are the HEIs and employers who form the structures/social contexts in which the degree outcomes happen. The macro level is the wider environment within which students, institutions and employers function.

Mountford-Zimdars *et al.* suggest that the causes of differential outcome are to be found in individuals, social relations and structures that they form. The factors – students' experience, relationships, psycho-social and identity factors and cultural and social capital inter-play at the three levels and have influence on the students' experience at every stage of the student journey and the degree outcomes (Mountford-Zimdars, 2015). Figure 2.11 illustrates these levels of influences.

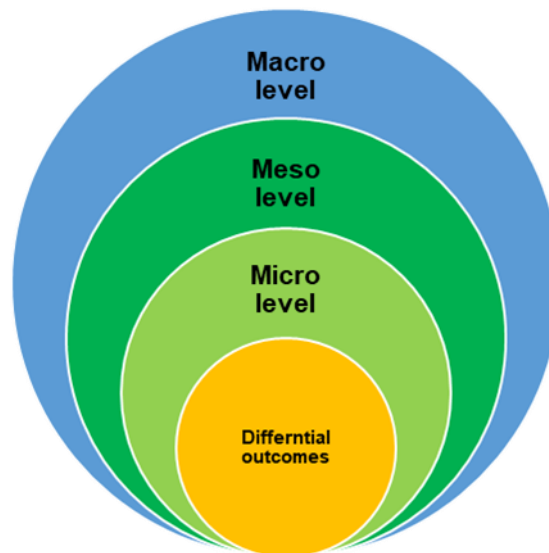


Fig 2.9 Levels of influences underpinning differential outcomes derived from Mountford-Zimdars et al (2015)

2.6. Critical race theory

Critical Race Theory (CRT) has its foundation in the 1970s when some lawyers of black descent decided to challenge the subtle racism going on in the US. Derrick Bell, Alan Freeman and Richardo Delgado were among the early writers of the CRT movement who were not satisfied with the slow racial reform in the US (Hiraldo, 2010). It started as a movement in law which came out of the Critical Legal Studies (CLS) movement but spread to other disciplines and to Europe, South America, Australia and Africa to become a very significant point of view on racism in education (Rollock and Gillborn, 2011; and Hiraldo, 2010).

A major proponent of CRT Ladson-Billings posits that CRT investigates how race and racism perpetuate social disparities between minority ethnic (marginalised) and majority ethnic (dominant) groups in the society (Ladson-Billings and Tate, 1995). Delgado and Stefanic (2001) agree with them that CRT views racism as something that is deeply enshrined in social order and that it is now seen as normal and taken for granted. However, this ingrained racial disparity needs to be challenged because it contributes to the growth of educational inequality.

Many critics of CRT disparage it for its focus on racism but in spite of that, it has become a leading perspective on race inequality in UK higher education (Rollock and Gillborn 2011). Hiraldo (2010) argues that for HEIs working towards inclusiveness and racial equity in education, simply increasing the number of BAME students is not a substitute for institutional change. Diversity needs to be reflected in the staff make up as well. Regarding

curriculum, Hiraldo (2010) states that professors are the designers of the curriculum who design courses according to their ideology and this can be to the detriment of BAME students (Patton *et al.*, 2007). This supports the findings of various research such as UUK and NUS (2019) that institutional change and curriculum design are initiatives that work well in the elimination of the degree awarding gap.

2.7. Legislation and policies

The promotion of equity is typically included as one of the core values of HEIs but closing the awarding gap, however, has not been prioritised by many of them. Thus the desired change has not happened. Several legislations and policies are currently in place to challenge HEIs to act.

The first legislation in the UK designed to confront racial discrimination was the Race Relations Act introduced in 1965. It metamorphosed into the Race Relations (Amendment) Act 2001 which was repealed in 2010 and replaced by the Equality Act 2010. The Equality Act requires UK higher education institutions to take positive actions to reduce the awarding gap.

Secondly, the Race Equality Charter makes the closing of the DAG imperative as it recognizes that UK higher education cannot realize its full potentials without benefiting from the talents of the whole population and until people from all ethnic backgrounds equally benefit from the opportunities it affords.

Another policy, the Teaching Excellence and Student Outcomes Framework Specification by the OfS places great importance on the need for HEIs in England to support students from a range of backgrounds in their aspirations and achievements. This includes identifying and addressing differential outcomes for specific student groups. It stipulates that such institutions will be recognized (The Department for Education, 2017).

The UK government announced measures in 2019 directed at tackling the ethnic inequalities in the nation's HE. These hopefully will enable people to achieve their potentials irrespective of their circumstances and background. Universities are therefore required to account for their initiatives/strategies to improve the degree outcomes of BAME students and underrepresented students. The universities will also have to publish data on admissions and attainment in which there will be a breakdown of ethnicity, socio-economic background and gender. This will make apparent the universities that are making good progress and those who need to improve (UK Government, 2019).

Findings from previous studies have indicated that the DAG is greater between the white students and the black students. Given that this is so, the OfS has made closing the gap in degree outcomes between Black and White students one of its access and participation targets for universities (Atherton and Mazhar, 2021). Perhaps this explains why closing the gap has risen on the list of priorities for universities.

Within the BE, the UK Construction minister in 1999 challenged the construction industry to improve its performance on people issues. In response to this challenge, a report recommended increasing the proportion of workers from underrepresented groups in the industry with an initial target of 20% increase per annum (Respect for People – A Framework for Action, 2004).

2.8. Key findings from previous studies

2.8.1 Classical View – Deficit Model

The deficit thinking paradigm is one that has been held for a long time by policymakers, educationists and scholars in the quest to explicate the lower educational achievements of BAME students. Proponents of the deficit theory posit that BAME underachievement is due to alleged internal intellectual deficiencies or characteristics that are rooted in their ethnicity or race (Valencia, 1997; UUK and NUS, 2019). Deficit theorists draw from negative assumptions and established stereotypes about a group of people and disregard systemic conditions that may be responsible for the underachievement. Much of the early research (Connor *et al.* 2004; Broecke and Nicholls, 2007; Richardson 2008) on the degree awarding gap for over 20 years upheld the deficit theory - the problem was with the students. Some places appear to still subscribe to the deficit model theory. Based on the deficit theory, the composition of BAME students is depicted in Figure 2.9.

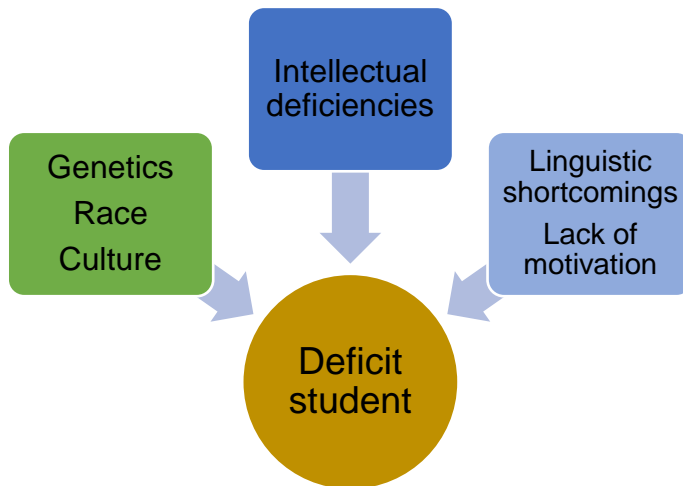


Fig 2.10 Composition of BAME students based on the deficit theor

An investigation at the instance of the DfE into the employment outcome and career progress of MEs after graduation is one of the earliest reports on the DAG. Connor *et al.* carried out the investigation and in 1996 reported an awarding gap when their survey revealed that 65% of white graduates were awarded a first-class or 2:1 but the percentage for the MEs was only 39% (Connor *et al.*, 1996) showing a difference of 39%.

In 2000, the report of a study carried out by Owen *et al.* observed the same pattern of differential outcomes between white graduates and their BAME counterparts. Owen *et al.*, (2000) attributed the difference in degree outcomes to age, socio-economic background, prior attainment, and mode of study (Fig 2.10). This was consistent with the deficit model theory.

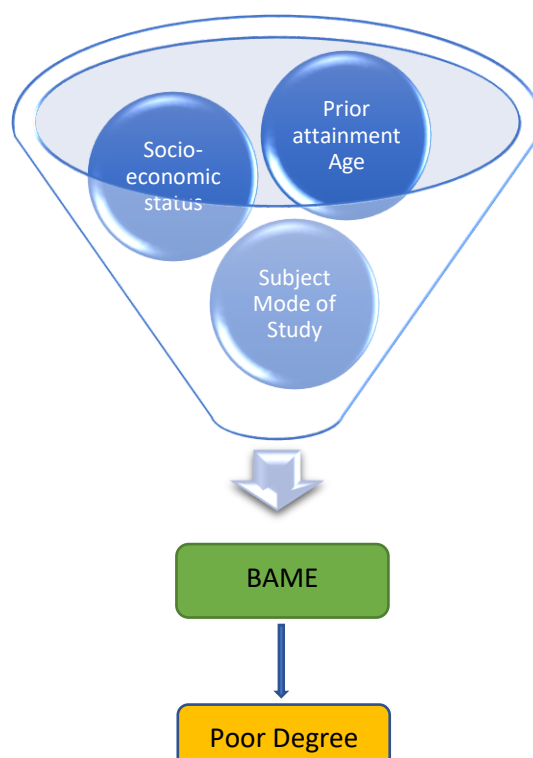


Fig 2.11 BAME Student as Deficit Model

Using HESA 20/01 data, Connor *et al.* carried out additional research for the Department for Education and Skills. and their findings were consistent with earlier ones - BAME students were less likely to obtain a good degree than their white peers. They further observed that although BAME students had a higher participation rate than the whites, this was not reflected in their attainment (Connor *et al.*, 2004). A part of their report also showed how, when only first-class degrees were examined, the awarding gap was reduced.

In order to further test the predictive value of ethnicity in explaining differential outcomes, Broecke and Nicholls conducted a second study for the Directorate for Education and included additional variables. They reported that despite controlling for gender, prior attainment, disability, deprivation, subject of study, type of HEI, term-time accommodation and age, an unexplained gap between minority ethnic students and white students still remained (Broecke and Nicholls, 2007).

The findings of Richardson (2008) attribute half of the disparity in degree outcomes to differences in entry qualifications and argue that the underachievement of BAME students in HE stems from their underachievement in earlier education. Contrary to Richardson (2008), however, Chinese, Indian, Bangladeshi, and Black African students in England outperform the white pupils in primary school (DfE, 2018). Furthermore, Richardson (2015) found that even if half of the differential gap is attributed to prior attainment, the other half is not attributable to student academic ability but BAME students in the UK are still coming out with classes of degrees that have nothing to do with their ability.

If as most research indicate, after a wide range of these factors (including entry qualifications) thought to contribute to the awarding gap have been controlled, the gap is still significant and ethnicity is a notable factor (Bhattacharyya *et al.*, 2003; Connor *et al.*, 2004; Miller, 2016), what could be the missing link?

2.8.2 From changing students to changing institutions

The UK higher education system has been undergoing changes for decades. Previously, the focus of these changes was on granting more access into HE for women, the disabled, BAMEs and so on. Now, the expansion of HE has made education 'a lucrative globally saleable commodity which has changed the shape and content of contemporary higher

education' (Sing and Cowden, 2016). As stakeholders, social justice, legislative imperative and business care should be major drivers for HEIs to address differential outcomes.

Up until recently, much of the research on the awarding gap in the UK was dominated by the "student deficit" model, which projected personal characteristics as contributing factors for the gap (Ross et al., 2018). According to Singh (2017), "many HEIs remain in a state of denial about the ethnicity attainment gap, or try to reduce it to a deficit model, where the presumption is that there is something 'wrong' with the student, rather than the institution." Universities seem to believe that due to their equal opportunity policies and, more recently, diversity and equality centres, they are already inclusive. So far, attempts to "fix" the student have had little to no result so recent studies have begun to look beyond this 'deficit model.' Ethnicity is almost probably not the effective variable affecting student achievement, according to Richardson (2015). HEIs clearly need to examine themselves to see why BAME students are receiving these degrees if the issue is not with the students themselves. Advance HE (2018) posits that the traditional focus on students being the cause of their underachievement (thereby necessitating a 'fix'), has to be discontinued. Framing and stigmatising students as being intellectually deficient, upholding negative stereotypes and ignoring systemic and structural issues are no longer acceptable rather actions needed should be focused on tackling institutional barriers – institutional culture, curriculum and pedagogy.

Consequently, UK academia, advocates of racial equality in education and BAME champions currently resist the deficit model thinking as they strive to improve student access, retention, progression and degree outcome because the problem lies within institutions (O'Shear-Poon, T. 2016).

2.8.2.1 Systemic barriers to equality of outcomes

The persistence of the awarding gap in HE seems to indicate some probability of systemic barriers to equality of outcome thereby making the onus on HEIs to do more to close the gap. Ladson-Billings (2006) called it an educational debt (with historical, economic, socio-political and moral components) accruing from many decades of lack of opportunity and inequality for BAMEs. Many institutions appear not to be yet effectively addressing or prioritising the persistent problem. They still need to go beyond well-meaning words and embed and maintain policies that will bring about the necessary change and demonstrate ethnic equality. Reducing the DAG may be more effectively addressed if HEIs can translate policies into meaningful actions in areas such as student retention and progression, student experience of HE, inclusive curricula, teaching and learning, mentorship and support. Miller (2016) argues that,

"This work has to occur at all levels of an institution, developing awareness, skills, and confidence of all personnel, and ensuring that this agenda is incorporated in strategic vision, strategic plans, and the work of various university boards and committees."

Achieving transformational change therefore, calls for university-wide strategies which need to examine barriers that affect student experiences, their progression and achievement. Many HEIs have taken some level of initiatives to close the gap, but the success rates have been mixed and there is still much work to be done. It is widely agreed that senior university authorities need to assume ownership and leadership of the BAME agenda. It is very needful to focus on specific barriers and successful interventions should involve staff and students (Husbands, 2019) because without this happening, the gap cannot be closed. Berry and Loke (2011) agree that senior management need to show commitment to race equality and provide strategic policies and the resources needed to implement institutional change. Moreover, UUK and the National Union of Students (NUS) suggest that there is no 'quick fix' to the DAG and 'the commitment to race equality is an ongoing one that should be permanently embedded in the work of the institution' (UUK and NUS, 2019). They suggest that universities should be open about the subject of race, racism and the DAG and be able to freely discuss it. There is indication that with such conversations, BAME students will have more sense of belonging in their universities and this will promote conducive environment for proper engagement and academic success. Each university must learn what works for them because they are all unique. Knowing what works requires close collaboration with students and other universities and a change in institutional culture is indispensable.

It is imperative that staff understand the DAG and strive to embed race equality in their teaching and interactions with students. One possible implication of this is that academic staff should not have low expectations of BAME students as is the case with the deficit model approach. Research conducted by Mountford-Zimdars *et al.*, (2015) indicates that BAME students often report this experience. Mountford-Zimdars *et al.* also report that there is an assumption that underperformance in prior qualification into HE, automatically translates to underperformance in HE. Students are negatively impacted when staff members convey such an expectation or attitude. Mountford-Zimdars *et al.* therefore recommend that HEIs in order to share the ownership of the DAG should raise its awareness among staff and students and set up diversity trainings across institutions.

Studies on the DAG indicate that student experience of HE matters a lot when looking at degree outcomes and that student access to HE is just a beginning not an end. BAME

home students are also less likely than white students to feel 'at home' at UK HEIs than they have felt previously in the society. There are some factors that can impact BAME students and their degree outcomes which come from the inequalities in society. The DAG mirrors racial inequality and injustices that are obtainable in all facets of life in the UK such as justice, employment, health and education for BAME communities (Cabinet Office, 2017). These injustices and inequality are rooted in the fabrics of the society and translate to biases in HEIs.

As indicated by OfS (2008), many BAME pupils outperform white pupils and are more likely to progress to the university but despite this initial success, their progress at university is affected detrimentally by the inequalities in the places of study, degree outcomes and employability. This can be linked to an NUS survey's report that HE in the UK comes with societal and institutional barriers which prevent BAME students from performing as well as their white peers (NUS, 2011). This observation by the NUS is illustrated by many BAME respondents stating that the disparities and inequities in society have long term effects on their self-esteem and confidence and consequently affect their HE experience and success (NUS, 2011). The NUS therefore stresses the relevance of belonging and inclusion to student success. This relevance is further attested to by Dhanda (2010) who suggests that HEIs can provide trans-cultural activities to increase the sense of belonging and wellbeing of BAME students and reduce their lack of integration. Stevenson (2010) echoes the same view for inter-ethnic integration.

Despite how complicated the DAG is, evidence indicates that HEIs can help close it by improving student experiences and offering easily accessible support, but quick fix approaches will not work. HE in UK today has become very globalised consequently Singh (2011) postulates that this should be reflected in the content of academic curricula and advocates the inclusion of some aspects of global citizenship and social justice in all disciplines. This is consistent with Dhanda (2010)'s suggestion that curricula need to be relevant and inclusive and any perceived inconsistencies in marking systems tackled. Furthermore, Hockings (2010) recommends that students be greatly involved in curriculum design, and this will ensure that students see the curricula as relatable. The report by NUS (2011) states that BAME students see their curriculum as being 'so white' (Eurocentric) and not reflecting the diverse contributions available in subject fields. This is accentuated by Bouattia (2015) who argues that,

'Black students are being treated as passive recipients of generally White-led and designed programmes instead of active participants in dismantling the barriers they face; not just overcoming them.'

One of the barriers to student progression and academic success is the near lack of BAME role models in HEIs especially in senior positions. There needs to be diversity in HEI staff and a paucity of BAME academics means a lack in the range of perspectives available in UK higher education and that does not reflect the diversity in the society. Dhanda (2010) notes that BAME students like to see BAME faces and recommends in her report to the University of Wolverhampton an increase of BAME staff at all levels. 'Diversity deficit' impacts on BAME students' aspirations and sense of belonging. Additionally, low BAME staff numbers limits the capabilities of universities in addressing the DAG (UUK and NUS, 2019). Husbands (2019) argues out that any initiative to bridge the DAG must involve BAME staff as well as students. She goes on:

'In my experience as a lecturer, universities aren't doing enough to listen to the lived experiences of BAME staff and students. I attended several talks that have discussed the attainment gap: they were primarily aimed at (mainly white) widening participation staff tasked by their universities with "fixing the problem". On the occasions that BAME staff or students were present at these events, they often functioned as "bystanders", with few opportunities to participate in discussions. This was compounded by the use of confusing university policy jargon.'

Top-down resolutions are very unlikely to produce any change. Rather, BAME staff and students need to be taken on board for solutions to be effective. Agreeing with Husbands (2019)'s postulation, Bouattia (2015) strongly advocates that for there to be a change in BAME issues, BAME academics and BAME students need to be 'invited to sit at the dinner table instead of simply being on the menu.'

Another barrier is the apparent lack of BAME role models or mentors in many places. Role models in HEIs can be designated to provide mentorship to BAME students particularly as many already do this unofficially. As Dhanda (2010) found out, many ME students like to have mentors from the same ethnic background. Invariably, BAME staff become the initial reference point for support to BAME students (Bouattia, 2015). According to Johnson (2015), mentoring is crucial, and if an institution does not have role models, they need to look outside. However, with mentorship, Singh (2012) advises that caution must be exercised to avoid alienating BAME students or reinforcing a deficit model. Husbands (2019) supports Singh's view warning that BAMEs are weary of tokenistic initiatives.

There appears to be little research carried out in the context of conscious or unconscious racial bias in UK higher education institutions, despite the effects that institutional racism

and a lack of understanding of BAME issues have on BAME students' degree outcomes. Connor *et al.* (2004) have noted that the possibility of embedded racism and discrimination cannot be ruled out as a contributory factor to differential outcomes. Moreover, in spite of the legislation to address the DAG and the widely acknowledged impact the gap has on BAMEs, there seems to be no urgency in addressing the issue (Pilkington, 2012).

It is important to close the DAG, however, Bouattia (2015) posits that without undermining the work being done to eliminate the DAG, there are more issues facing BAME students than the gap and tackling the DAG is a small part of the bigger issue which is 'to dismantle institutional racism and decolonise education.'

2.9. Sample university interventions

Although the disparity in degree attainment in the UK cuts across institutions and disciplines as previous research have shown and universities were complacent about BAME students receiving lower-quality degrees for years, they are now being forced to act on research findings due to external pressures, globalisation, and the commercialization of HE to bridge the DAG.

UUK and NUS, (2019) report that HE is currently under the spotlight and needs to show that it is working hard to tackle the social injustice called DAG and provide constructive ways to eliminate it. In line with findings from previous studies, there needs to be sustainability of actions for effective and long-lasting change but clearly nothing is going to change about the DAG unless university initiatives are driven by senior management backed by 'comprehensive strategy for equality, diversity and inclusivity' (Husbands, 2019). Husbands goes on to emphasise that there isn't a one-size-fits-all solution because what works in one university with a high BAME population might not work in another where there are less BAME students, and vice versa. Initiatives and strategies need to be adapted to the particular institution.

There are some universities that have taken targeted initiatives to close the DAG and a few of the focused approaches are given below as examples.

2.9.1 Kingston University London

Kingston University's participation in WP for over a decade has brought about its having more than half its student population from BAME backgrounds. The university is a sector leader in the quest to close the DAG and its efforts have been acknowledged by the OfS and Advance HE. In March 2014 with the recommendation of its board of governors and informed by the CRT, the university determined to play a leading role in addressing the

DAG as an institutional Key Performance Indicator (KPI). Their strategy was institutional change and sustainable cultural change. Their approach was improving institutional process (including the introduction of the valued added (VA) score and inclusive curriculum framework), workshops (inclusive curriculum, equality essentials, unconscious bias and the like) and measuring the impact of initiatives (McDuff *et al.*, 2018). Within six years of Kingston's use of two specific interventions – the valued added score and the inclusive framework, the difference was very remarkable as the DAG went down from 29.5% to 11% (Kingston 2020).

Utilizing a metric that considers a student's entry requirements and course of study is part of the VA metric approach. When a VA score (target) for a course is not met, this is immediately noted as an unexplained gap in attainment that has to be investigated. The support the course team needs to understand and address the gap is provided and this intervention is carried out for both BAME and white students.

Kingston calculates each student's VA score based on their entry qualification and their course of study to set expectations for them. When a student does better than expected, their VA score is greater than 1.0. If the scores are less than 1.0, it signifies that fewer students than anticipated have received a top degree, given the students' profile in comparison to similar students across the sector. VA scores therefore, demonstrate how much more students than predicted obtain a 1st or 2: 1 degrees. This approach helps Kingston University to develop a narrative for each student, and the likelihood that they will earn a 1st or 2:1 is calculated using data on all graduates from HE within the past five years. Because of this, any shift may be quickly and easily detected, allowing for the implementation of interventions to get the student back on course for success.

Another major and successful approach used by Kingston University is the Inclusive Curriculum Framework (ICF). This framework was designed to provide meaningful, appropriate and accessible curricula to all students, with students at the centre of the development of courses in which pedagogic assumptions that disadvantage some student groups are challenged and changed (Kingston 2020). It uses a holistic universal course design approach for all students and the complete student life cycle is taken into account, including the HE experience, retention, progression, attainment, graduate outcomes and employability.

The framework has three fundamental design principles which have contributed to its success:

1. 'Create an accessible curriculum
2. Enable students to see themselves reflected in the curriculum

3. Equip students with the skills to positively contribute to and work in a global and diverse world.'

2.9.2 Kings College London

Kings College is conscientiously working towards the race equality. It recognises the important role that good leadership plays in tackling the awarding gap and has a development programme for 35 of its most senior staff from the academia as well as the non-academic. They engage in training leaders to address the gap at the institutional and specific levels and have KPIs that hold the leaders and university accountable for the DAG (UUK and NUS, 2019).

2.9.3 Sheffield Hallam University

Sheffield Hallam University aspires to be a world leader in outstanding outcomes for its students and by so doing transform lives. Their strategy for closing the university's DAG has been informed by this and is implemented on three levels: institutional, departmental and individual (Sheffield Hallam University Approach).

At the institutional level, the university established a Students Race Equity Corporate 5-Year Action Plan (RECAP) in 2019 to reflect its commitment to closing the DAG and to track progress with the gap's closure. RECAP was designed to align with the UUK/NUS's #closingthe gap report (2019), which asked universities to think about using five steps as a framework for accelerating progress. These five most significant steps needed for success in reducing the DAG according to UUK/NUS (2019) are:

1. Providing strong leadership
2. Having conversations about race and changing the culture
3. Developing racially diverse and inclusive environments
4. Getting the evidence and analysing the data
5. Understanding what works

The measures by Sheffield Hallam to achieve the above include embedding Equality Diversity and Inclusion (EDI) in leadership roles, conducting equity checks, staff development and working closely with the Students Union (SU).

Decolonizing the curriculum, enabling supporting placements, student support/mentoring, and staff awareness development are some of the important initiatives they are undertaking at the departmental level.

Initiatives at the individual level include a project to explore counter-narratives and the broadening of staff understanding of the underlying issues surrounding race.

2.10. Initial conceptual framework

This study zeroes in on ways of closing the DAG in the UK higher education by adopting the idea that institutional engagement is critical to achieving the target. It is clear from a review and analysis of literature on the subject, that the disparity in student outcomes can no longer be attributed to students alone. The gap in degree outcomes was not eliminated when the factors attributable to students were taken into account.

The literature review identified some recurrent factors that affect degree outcomes. Because of how frequently they were mentioned in the literature, these factors have been identified as key and influential. The fact that they were mentioned more other factors served to support this. They were consequently considered to be the most appropriate for this research. This research's conceptual framework was based on these significant recurring factors and excludes any factor attributable to the student that would have been influential according to the deficit student theory (See figure 2.12). As a result, it is suggested that the following key factors be investigated and addressed, as doing so will undoubtedly have a significant positive impact on the DAG in UK higher education.

- Leadership and institutional culture
- Belonging and student experience
- Mentoring/role models
- Curriculum
- Teaching and assessment methods
- Racism and biases

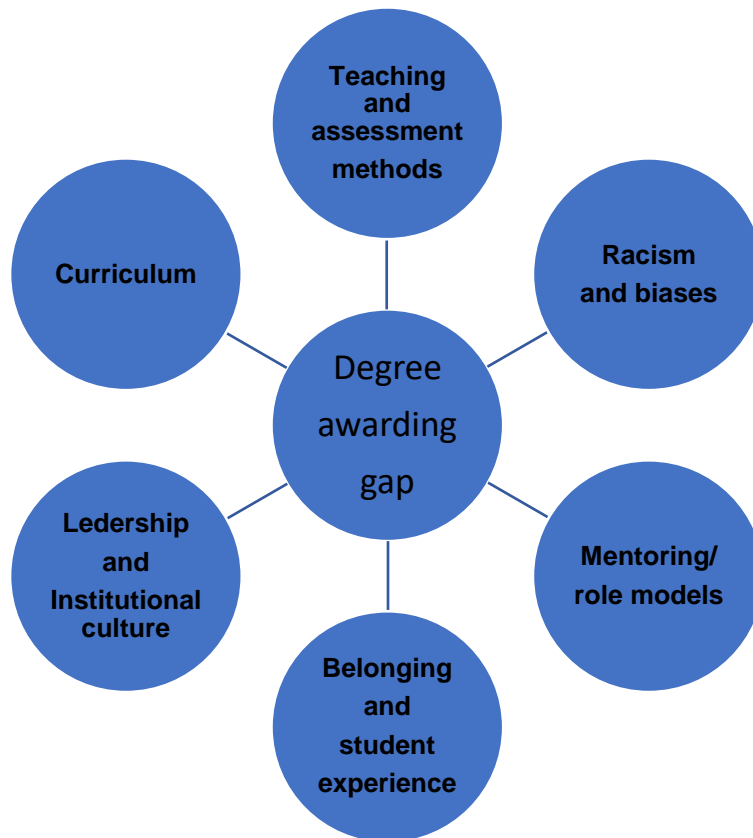


Fig 2.12 Initial conceptual framework

2.10.1 Leadership and institutional culture

Judging from a UUK/NUS (2019) study, one of the key factors influencing BAME students' attainment is the culture of an institution because this impacts their sense of belonging to the institution. The study further found that, it is usually difficult to have conversations on race and ethnicity and sometimes there is a denial in HEIs of race related problems and the need for change in order for the institution to become truly inclusive. However, the elimination of the DAG in HEIs calls for institutional commitment which can only be attained by senior leadership accepting the responsibility of developing strategies, policies and initiatives judged pertinent to removing attainment differentials, and making sure they are implemented and sustained (Sing, 2011; UUK/NUS, 2019; Berry and Loke, 2011). Senior university authorities need to assume ownership and leadership of the BME agenda. Vice chancellors and senior staff need to own and be accountable for the closing the gap by driving institutional change and providing needed resources to remove racial inequities (UUK/NUS, 2019). The UUK/NUS (2019) further asserts that 'this has to be the start of a journey on which higher education leaders are active in achieving results in addressing issues around race, ethnicity and attainment' and which is permanently ongoing. It should be permanently embedded in the work of the institution.

Recognising that HEIs are at different stages in their efforts to close their DAG, the UUK advised HEIs that it would like to see the following:

- increased number of universities acknowledging the DAG and setting specific targets to close them
- greater awareness of how to support BAME students among university staff
- a clearer understanding of BAME students' perspectives, particularly how they relate to their sense of belonging
- appropriate disaggregation of the broad BAME group to ensure that interventions take into account the diversity of experiences and needs of individual BAME students.

One implication of this advice by UUK is that an institutional culture change is imperative as HEIs seek to close the DAG. Institutional culture involves the way an institution acts and thinks, unwritten rules of common values, language and norms that shape people's actions and attitudes on an individual and group level. Balogun and Johnson (2004) define organisational culture simply as 'how we do things here.' The way an institution's mission is carried out is determined by its institutional culture. Additionally, 'cultures are often defined by the behaviours that leaders allow, the behaviours that are encouraged, and the behaviours that are forbidden' (Gloucestershire County Council, 2020).

Institutional culture is made up of people and their behaviour and is created through social interactions. Many aspects of western culture has been appropriated from other cultures and the society, built on the colonisation of other nations, is characterised by a system of privilege and oppression. The UK's higher education system is no exception, given its history of prejudice, marginalisation and patriarchy. The dominance of US and European imperialism is demonstrated through scientific hierarchy, which also demonstrates the internalisation of western worldviews, prejudice and ideological strongholds. Every academic institution's inherent racism can possibly be grown with a little water.

In response to demands for social justice and the eradication of structural and institutional racism following the events of the last few years, UK higher education has been challenged to play its part in dismantling inequality in the British society. Conceivably, without any challenging, many people are unaware of their institution's culture and because culture evolves, institutional culture needs not be static. The changing demographics in UK higher education through globalisation and internalisation of HE now challenge the Eurocentric narratives and worldviews prevalent in most UK universities. Since the universities have become ethnically diverse, clearly HEIs must adapt to the changing patterns by creating equitable environments to cater for the diverse needs of their population.

The need to transform institutional culture therefore necessitates going beyond equal treatment (justice) to the removal of barriers that hinder groups that are at a disadvantage (equity). It involves challenging professional identity, a radical transformation of existing structures and an alignment to new ways of doing things. As the lens through which one views a problem shapes their response to it, leaders need to develop and exhibit cultural dexterity rather than resist it, challenge normative whiteness, and gain the support of the people the change will affect.

COVID-19 orchestrated an emergency transition to online learning, greatly impacted HEIs and learning processes and highlighted digital inequality/poverty with the attendant risk of leaving some students behind. Most universities responded very well to the challenges including the in-person didactic style being swapped for the collaborative 'engaged learning' and 'active learning.' One lesson from this is that HEIs require a reassessment of the academic structures, and teaching, learning and assessment methods to ensure that they are fit for purpose and capable of building resilience for continual viability. This will possibly ensure that no one is excluded or left behind.

Looking ahead, Martin (2019) of Advance HE reporting on how student learning and learning environment will change in global HE including the prospect of the automation of teaching and student advice argues that, 'We need forms of learning which are anti-passive, participatory, and applied – these forms have the energies to engage students and carry them forward.' Martin further asserts that HEIs must be strategic to maintain their competitive edge due to the danger posed by companies like Apple and Google expanding/scaling up the amount of online learning they provide to degree programmes. One possible implication is that the pandemic can be used as a catalyst for flexible and adaptive learning to enhance outcomes for all students irrespective of ethnicity or socio-economic background. Equitable education requires equitable learning environment for all students which helps them harness the transforming power of HE and a change in institutional culture is indispensable.

2.10.2 Belonging and student experience

When examining educational equality and degree outcomes, the student experience of HE is crucial and has great impact on students' attainment. According to Cousin and Cureton (2012), academic success and a sense of belonging are correlated. Student access to HE is just a beginning not an end. BAME home students are less likely than white students to feel 'at home' at UK HEIs than they have felt previously in the society. One explanation could be that the DAG is a reflection of the racial injustices and inequality that BAME communities experience in the UK in all areas of life, including employment, health, and

education (Cabinet Office, 2017). This is consistent with the NUS (2011) survey (noted earlier) in which many BAME students reported that the disparity and inequalities in the society has long term effects on their self-esteem and confidence and consequently affect their HE experience and success. There is a reduced sense of belonging for the student group whose viewpoints are lacking as a result of a dearth of multiple perspectivity in institutional culture and HE curricula. This has an impact on how the students respond to classes, how they interact with tutors and other students, and how successful they are academically. Inclusion and a sense of belonging are part of the critical factors that affect the retention, progression and success of students and how they fit in the society.

The relevance of belonging and inclusion is stressed by NUS (2011) and Keohane and Petrie (2017) and HEIs certainly need to understand the impact of a low sense of belonging on BAME student engagement, attainment and progression to employment or postgraduate study. A high-level sense of belonging in their universities will promote conducive environment for proper engagement and academic success therefore, HEIs must make sure that the learning environment is ethnically varied, fully inclusive, and that the perspectives of BAME students and staff are appreciated and taken into consideration. Because every university is different, each one needs to understand what works for them as stipulated by UUK and NUS (2019). Furthermore, to increase the sense of belonging and wellbeing of BAME students and reduce their lack of integration, Dhanda (2010)'s suggestion (as noted earlier) is that HEIs can provide trans-cultural activities. This is corroborated by Stevenson (2010).

The dearth of BAME academic staff particularly within senior management impacts BAME students and it tends to be that they typically have a poorer sense of belonging and aspirations because they have few or no role models (Dhanda, 2010). The absence of role models, curriculums lacking multiple perspectives, conscious and unconscious biases, teaching and assessment methods are some of the factors that create a poor sense of belonging. It is important to develop collaborations with students and other universities to know what works. Martin (2019) postulates that 'active and collaborative learning between diverse students is a richer educational chemistry than that defined by homogeneity.

2.10.3 Mentoring/role model

The paucity of BAME academic staff in HE has remained a perennial issue and UUK and NUS (2019) note that it limits the capabilities of universities in addressing the DAG. Husbands (2019) states that it is imperative to involve BAME staff and students in any initiative aimed at addressing the gap as top-down resolutions are unlikely to make any

difference. Rather, BAME staff and students need to be taken on board for solutions to be effective.

Mentoring has the potential to be a very effective tool for inspiring, guiding, and supporting BAME students, and early intervention is widely acclaimed to be crucial. Recognising that BAMEs are not homogenous Stevenson *et al.* (2019) posit that collecting and monitoring data can help HEIs to improve their cultural competence. It could also be the case that reverse mentoring enables leaders to improve their cultural dexterity as members of an organisation who may otherwise not get together (from different ethnicity, departments and/or levels) are paired together.

Since many BAME staff already unofficially provide mentorship for BAME students (being the initial reference point for support), HEIs can officially designate them to do same and BAME students like to have mentors from the same ethnic background (Dhanda, 2010). Mentoring should be more than giving advice and should be focused on the experiences of the student. Johnson (2015) points out that mentoring is very important and if an institution does not have role models, they need to look outside for them. Again, this should not be tokenistic, and care needs to be taken so that there is no isolation of BAME students or boosting of a deficit model (Singh, 2012).

2.10.4 Curriculum

The term curriculum refers to a number of things ranging from the traditional concept determined by the academics to the innovative and challenging concepts of the 21st century. It is through the curriculum that what is taught in HE is structured, and knowledge is identified (Charles, 2019). Fraser and Bosanquet (2007) in a research classified ways in which academics in HE perceive curriculum into four categories:

- 'Category A: the structure and content of a unit (subject);
- Category B: the structure and content of a programme of study;
- Category C: the students' experience of learning;
- Category D: a dynamic and interactive process of teaching and learning.'

Categories A and B fall into the more traditional concept of curriculum which is focused on what the student is taught and the structure of the teaching process is 'defined and then recorded on paper' (Fraser and Bosanquet, 2007) during the whole programme of study. The student has no say in these categories but uses the curriculum as a product for their learning experience. The student is therefore responsible for their degree outcome. Categories C and D on the other hand are dynamic, flexible and involve collaboration

between the teacher and the student in the teaching and learning process and more in line with the need to enhance existing model to meet the challenges of evolving HE.

Singh (2016) presents two perspectives on curriculum which are present in HEIs. The first perspective similar to Fraser and Bosanquet's categories A and B is all about having good content design, good teaching methods and whatever comes after that, is dependent on the student. The second perspective anchors on the fact that HEIs have been established on the legacy of colonialism (a major reason advocated for the 'Rhodes Must Fall' campaign), capitalism and patriarchy. In other words, they are dominated by white, middle-class males. The deficit model is greatly implied in the first while the second is elitist. Clearly these two perspectives are no longer acceptable and raise serious questions for 21st century HE. Singh further advocates a paradigm shift as these perspectives cannot continue to shape curricula in our constantly evolving environment. This is vital as the commercialisation of HE has shifted the emphasis from the institution to the student and how to maximize their learning experience and provide them with the necessary skills for employment.

Curricula discourse has been prevalent in UK over the past ten years (Bovill and Woolmer, 2019; Annala, Lindén and Mäkinen, 2018). The present climate in UK higher education and outside pressures have clearly brought about a surge of interest in this area therefore making it of high currency. People have become critical of the traditional forms of knowledge in traditional organisations like HEIs (which keep reproducing inequalities) and the learning process of all groups of students is being investigated. One of the topical issues is the impact of curriculum design (content, structure, delivery and assessment) on BAME students and their learning experience which often make them lose the transforming power of HE.

With the shift of focus now on the student, a critical approach needs to be taken by HEIs in both their epistemological and ontological positions to reflect this shift towards the student and respond to the rapidly changing landscape of the 21st century UK higher education. The curriculum needs to be meaningful to all students and relevant to their contexts and experiences and HEIs need to embed curriculum strategies that support learning for all students. To maintain relevance in a rapidly changing landscape, Nohria and Beer (2000) postulate that most traditional organizations have accepted they must invariably change. HEIs are no exception particularly with the commercialisation of HE.

The decolonisation of the curriculum is a major issue in the discourse about closing the DAG and the achievement of equity in education as the curriculum is the primary means through which students are engaged academically.

2.10.6.1 Decolonisation of HE Curriculum

One may wonder what the word decolonisation is doing in a 'nice' place like HE. Others may prefer to use 'inclusive' rather than 'decolonisation' when dealing with curriculum. Whatever term that is employed indicates that there are some deficiencies in HE curriculum which marginalise some group(s) of people. Hack (2020) in one of Advance HE's monthly tweetchat reports a participant as stating that UK curriculum needs more than just including subjugated narratives – it needs an epistemological transformation, a reconstruction. Inclusion sounds more like a tick box exercise which most HEIs do with the Equality Diversity and Inclusion (EDI) units. Reconstruction on the other hands involves a radical transformation. While the term 'decolonisation' may bring some discomfort because of Britain's colonial history, it is pertinent that to be viable in a fast-changing world, HEIs must be revolutionary in order to meet the requirements of a varied population and contribute to the demolition of systemic inequity in British society.

HEIs are usually slow in adapting to changes unlike our fast-paced world. However, globalisation, the competitiveness that is prevalent in HE and the challenges brought about by COVID-19 demand that they must adapt to the rapidly evolving world. The call to decolonise the curriculum in the UK has been ongoing and includes campaigns such as 'Rhodes Must Fall' (ignited by a similar campaign in South Africa in 2015) and 'Why Is My Curriculum White?' After the happenings around the world particularly in the last three years (particularly the protests following the murder of George Floyd), it is a now major concern. Oxford University failed to tackle the issues at the first Rhodes Must Fall campaign in 2016 and one of the few black professors at Oxford, Simukai Chigudu (2020) asserted that,

'The removal of the Rhodes statue would be a powerful gesture of public accountability and it would allow a good-faith discussion about institutional racism in my university as a small part of much broader demands for racial justice and equality in British society.'

Furthermore, former HE minister David Lammy accused Oxford and Cambridge universities of 'social apartheid' and of being unrepresentative of the British society (Stubbs, 2017). Both universities are elitist and marginalise minority ethnic groups in their admission processes and such inequality and historic marginalisation at Oxbridge as well as other HEIs must be continuously challenged until changes are notably carried out.

Much of the curricula in the UK and other parts of Europe are filled with Eurocentric narratives, which suppress counter narratives making the curriculum unrelatable to the many BAME students. With the globalisation of HE and changing demographics in the UK

and Europe, this is being challenged. Advance HE (2018) encourages its members to examine any structural privileges and 'hidden' curriculum (Moody, 2020) because the presence of such reinforce racial and educational inequalities. UUK and NUS further suggest that HEIs must address the impact of current curricula, teaching, and assessment processes on students, particularly BAME students whose backgrounds and viewpoints are usually undervalued (UUK and NUS, 2019).

While Hockings (2010) recommends that students be greatly involved in curriculum design, Dhanda (2010) adds that curricula need to be relevant and inclusive and any perceived inconsistencies in marking systems tackled. A report by NUS (2011) states that BAME students see their curriculum as being 'so white' (Eurocentric) and not reflecting the diverse contributions available in subject fields. This is accentuated by Bouattia (2015) who argues that:

Black students are being treated as passive recipients of generally White-led and designed programmes instead of active participants in dismantling the barriers they face; not just overcoming them.

Singh (2011) goes even further postulating that the globalisation of HE in UK should be reflected in the content of academic curricula and advocates the inclusion of some aspects of global citizenship and social justice in all disciplines.

Decolonisation needs to start with the decolonisation of the mind and includes the decolonisation of knowledge, decolonisation of learning and decolonisation of the institution. It involves challenging notions and concepts that have been upheld for so many years within and outside HE. Singh (2016) propounds that 'the whole enterprise of HE is built on reproduction of white elitism and a devaluation of the knowledge and capabilities of the "Other."' Decolonisation, however, gives space to teachers and students 'to construct, deconstruct and reconstruct knowledge based on their experiences' (Fomunyam, 2018). In Nigeria for instance, students were taught that the River Niger was discovered by Mungo Park. This narrative was accepted for a while, but the time came when the people questioned and rebutted that 'knowledge.' People had lived by the River Niger and it served many purposes for them long before Mungo Park came to Nigeria. How then did he discover the river? This probably aligns with the saying credited to Winston Churchill that 'history is written by the victors' – well at least until the owners wake up and change the narrative.

The Innovating Pedagogy Report 2019 of the Open University postulates that 'decolonising learning prompts us to consider everything we study from new perspectives' (Open University, 2019). The report further argues that 'decolonising learning helps us to

recognise, understand and challenge the ways in which our world is shaped by colonialism.’ Decolonisation of the curriculum is about the ‘rigorous intricacy of shedding away colonial legacies from the education system be it material or ideological’ (Fomunyan, 2017). In addition, Borkin (2021) argues that ‘it should be acknowledged that while any adaptations to the curriculum are an important first step, biases are most likely systemic and relate to wider issues such as hiring practices and inherent racism.’

2.10.5 Teaching and assessment methods

All HEIs place a high value on enhancing the quality of teaching and students’ learning experiences. Therefore, teaching and assessment methods are very important. As Singh (2011) and Richardson (2015) posit, both practices have impact on the DAG. For inclusive teaching and learning, students must fully understand what is expected from assessments and receive feedback, particularly for any "hidden rules" that may exist, as this is advantageous to all students and can be used to their benefit. It's also important to validate student experiences. Some students perform better in groups than on their own, thus assessments should also take this into account.

It is very important for HEI academic staff to understand the DAG and strive to embed race equality in their teaching and interactions with students. This is significant in a number of areas, including the expectations academic staff have for BAME students. As is the case with the deficit model approach, academic staff shouldn't have low expectations of BAME students. Singh (2011) suggests that the issue of low expectations and teacher bias has been little researched and low expectations lead BAME students to feel intellectually unstretched. In line with this, Mountford-Zimdars et al., (2015) found that BAME students often report this experience of low teacher expectations. Furthermore, they posit that there is a perception that the underperformance by BAME students in prior qualification into HE translates invariably into underperformance in HE. The expression of such an expectation or attitude by staff has very negative effects on students.

Furthermore, there is need for parity in teaching, assessment and support to students. Teaching and assessment methods should reflect a non-stereotypical view of the university population. According to an NUS report (2011), BAME students reported ‘double standards: different treatment and support for the same course, from the same tutor’ and ‘tutors/lecturers do have a tendency to look down on minority ethnic students. If not racist, (they are) at the least favourable towards white students.’ While NUS acknowledged that this was a matter of perception, it nevertheless argued that many BAME students who were surveyed remarkably held the same opinion, and that this had a significant impact on their self-confidence and motivation to succeed.

It is also essential that the approaches to teaching and learning evolve. This is evidenced by the great impact COVID-19 had on HEIs and learning processes. It is remarkable how HEIs adapted swiftly in 2020 to 'a new normal.' UK higher education responded to the corresponding challenges in diverse ways including blended learning and the use of digital technologies for work, teaching, and assessment. Online learning, previously a privilege of the Open University became mainstream and had the potential to revolutionise curricula and learning (Andrade, 2018). The emergency transition to online learning by HEIs also highlighted the risk of certain students falling behind due to digital inequality/poverty. Many HEIs provided hardship funds or laptops for students and had 'no detriment policies' to mitigate the impact. For all students, regardless of race or socioeconomic status, the pandemic can serve as a stimulus for flexible and adaptive learning that can improve outcomes.

2.10.6 Racism and biases

The death of George Floyd in May 2020 in America ignited myriad protests and demonstrations across the world championed by the Black Lives Matter Movement (BLM). These protests brought to the foreground the need for nations and organisations to unequivocally address systemic and institutionalised racism - such weighty matters from which there should be no room for social distancing. As clamours for the dismantling of structural and systemic racism became prevalent, many institutions and organisations had to do some self-reassessment and initiate changes to address inequality. For HEIs, it was no longer enough just to tick an institution's EDI box.

Protesters from the BLM movement defied the COVID-19 lockdown restrictions in 2020 and challenged Oxford University to 'take Rhodes down' following Floyd's death and the toppling of Edward Colston's statue in Bristol. Earlier in 2016, there had been a campaign 'Rhodes Must Fall' which failed to yield the campaigners' desired results. Oriel College in University of Oxford where Rhodes' statue stands, refused to take it down in 2016 acknowledging that though £100 million in gifts would be lost if the statue went down, financial benefits were not the main reasons for that decision (Elgot, 2016). Chigudu (2020) however noted that, 'Oriel College refused to remove the statue as it risked losing £100m in donor gifts from wealthy alumni.' Put under the spotlight once again after the 2020 protests, the institution's governing body agreed to take Cecil Rhodes' statue down. The decision was rescinded in May 2021 by the institution for alleged 'regulatory and financial challenges' (Mohdin, 2021) thus lending credence to Chigudu's assertion.

The BLM protests turned out to be a global wake-up call for years of systemic and endemic social injustices in all strata of the society to be addressed. Yet the government-

commissioned race report following 2020 BLM protests, concluded that structural racism does not exist in the UK. On the contrary, a documentary on BBC Three, 'Is Uni Racist?' affirmed the indisputable reality of structural racism deeply rooted in UK higher education which needs to be acknowledged and addressed. One clear takeaway from all these for UK universities is that they must address the needs of their communities which have become increasingly ethnically diverse through the globalisation of HE. It is ethically imperative that universities address this educational inequity.

Ideally, the quest for equity in HE would be expected to be relatively straightforward given that HEIs are ostensibly committed to racial equality and are viewed as liberal spaces. However, the power of privileges and HEIs' complacency have made it more difficult. Institutional racism and systemic injustice have been supported by the histories and structures of universities and they seem to require external pressures to bring about the change that is required. The pressure for change increased after the 2020 BLM demonstrations.

There seems to be no large-scale investigation into institutional racism and ethnic bias (conscious or unconscious) embedded in UK HEIs. While some studies have brought to light the effects that a lack of awareness of BAME issues and institutional racism bring on BAME students degree attainment, the issue is not being addressed with the needed urgency (Pilkington, 2012).

It is clear that internalised prejudices, stereotyping, attitudes and normative whiteness need to be challenged and HEIs need to be proactive in tackling racism. Moreover, white fragility should be addressed so that true diversity can be normalised. HEIs need to be open about the subject of race and racism and have critical conversations about them. Although having conversations about race, racism, microaggression and biases in HEIs can be difficult, it is crucial that these conversations take place and many HEIs are already doing it through unconscious bias training according to UUK/NUS (2019). The effectiveness of these trainings in combating racism and conscious bias however, is another matter entirely. Bouattia (2015) agree that open, meaningful, and constructive discussions on race, racism, and ethnicity are vital. Bell and Hartmann (2017) take it a step further and argue that the DAG must be seen for what it is—a racial inequality—and not merely from the perspective of inclusion and diversity.

According to Singh and Kwhali (2015), treating everyone equally has minimal impact on achieving an equitable society because inequities have been very deeply ingrained into our warped world over the years due to colonialism, slavery, and capitalism. In HEIs, they are almost invisible, yet the presence is very real. Equity while desirable, only provides

needed support. Justice, however, involves the removal of structural barriers that cause inequities as is illustrated in Fig 2.13.

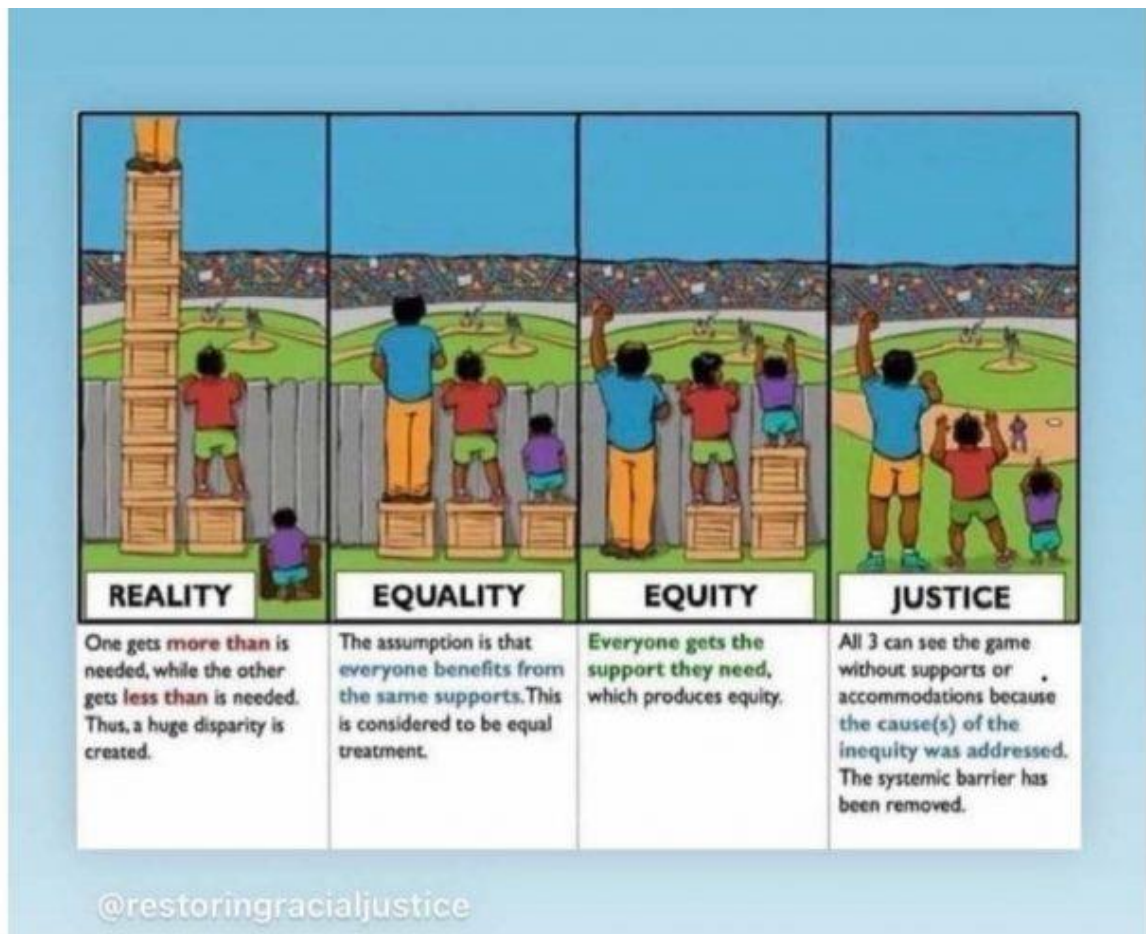


Fig 2.13 Defining equity, equality and justice

Going beyond critical conversations, the onus of tackling racism in HEIs requires the intentional, concrete, sustained, collaborative and positive efforts of both whites and BAMEs in challenging and dismantling the deeply embedded racial inequalities in UK HE.

2.11 Chapter summary

This chapter has presented a review of relevant literature in order to provide the theoretical base on which the research is situated. It also presented an initial conceptual framework for understanding the causes of differential outcomes developed using the emergent themes from literature review.

3. DAG in UK built environment

3.1. Introduction to chapter three

The previous chapter reviewed previous literature related to this field of study which is focused on eliminating the degree awarding gap and this chapter provides the context for the BE sector. This critical review of literature identifies the gap in knowledge and demonstrates how this study adds to existing body of knowledge.

3.2. The built environment

The term built environment (BE) is a relatively new concept (1980s) that describes the products and creative activities of humankind throughout history (Bartuska, 2007). Roof and Oleru (2008) broadly define the BE as ‘the human-made space in which people live, work, and recreate on a day-to-day basis. It includes the buildings and spaces we create or modify.’ Bartuska (2007) goes on to say that we build our lives from experiences and that these experiences serve as the foundation from which the elements of the BE develop - human needs, ideas, and actions. This he buttresses by pointing to the fact that majority of the information we have on ancient civilizations comes from the remains of the BE. Furthermore, Bartuska defines the BE according to four interrelated characteristics:

1. It is everywhere and encompasses everything that has been humanly created, modified, arranged, or maintained by humans.
2. It is the creation of human minds to serve human purposes and fulfil human needs.
3. What is created helps to us deal with and protects us from the overall environment.
4. All the individual components contribute positively or negatively to the overall quality of the environment.

Fig 3.1 below illustrates Bartuska’s definition further and the triangle symbolises the built aspects of the environment visually.

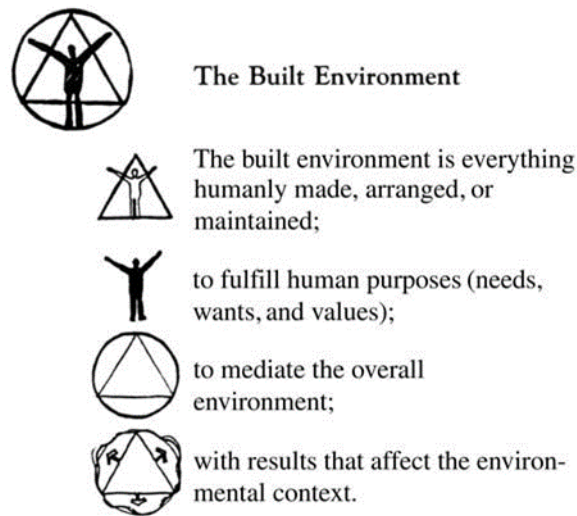


Fig 3.1 The built environment and its four related characteristics by Bartuska (2017)

Bartuska's four interrelated characteristics emphasise the link between space and social consequences. What we build, modify or maintain to serve human purposes and fulfil needs impacts the society and how the society functions including the approach to environmental issues (positive or negative) arising from human alterations of the natural environments and creating socioeconomic inequity.

3.3. BE in UK higher education institutions

Even though the BE is made up of several components, according to Bartuska, all of these components (product design, engineering, architecture and so on) share a common foundation and common objectives, making the term "BE" a holistic concept that results from the integration of the various design and planning elements.

The interrelatedness of the components of the BE and the understanding of the same is very crucial for the effectiveness of the BE. As it is a sector that cuts across disciplines and usually includes design, construction and the management as a cohesive whole, most disciplines in HE are recognising the importance of interdisciplinary collaborations, and this has enhanced the establishment of BE schools or departments/divisions in HEIs. These interdisciplinary collaborations extend to other disciplines such as health, economics, psychology, along with others as HEIs respond to the innovative challenges of the 21st century created by interrelated factors wider than individual disciplines and often require interconnected initiatives.

In UK higher education institutions, the BE is not usually an academic discipline but comprises departments/divisions such as Construction Management, Architecture,

Engineering, Estate Management, Facilities Management, Design Management, Conservation, Surveying and Sustainability. This study looks at the BAME students undertaking studies in divisions/departments within the BE.

3.4. Why the built environment?

An investigation into equitable education in UK higher education is of critical importance to all disciplines especially the BE considering the widely acknowledged significance of the industry in the country. The BE has a defining influence on people's lives with its ability to transform quality of life or to discriminate against disadvantaged minority groups (Cabanas, Collier and Seed, 2020). It is a sector often used by most governments to achieve their macroeconomic objectives of full employment, housing delivery, and infrastructures and service deliveries. Additionally, the sector contributes significant backward and forward linkages with the rest of the economy. While the significance of the sector in the UK is widely acknowledged, it is white, and male dominated. There is a near absence of BAMEs in the sector in terms of jobs against the background of the predominance of BAME students on BE courses (CABE 2005; CEMS 2002).

This underrepresentation of people from the BAME background in the sector and the fact that the sector is significantly behind others is widely acknowledged. While there are measures starting to take place, the Construction Management (CM) postulates that the industry in the UK is far from being sufficiently inclusive (CM, 2020). CM while investigating why BAMEs are underrepresented reports conversations with some BAME professionals about what can be done to change the narrative. According to CM, Prof Charles Egbu former director of the CIOB points out that, 'We need to provide leadership to improve the situation.... Whether on site or off site, construction should have conducive working environments for people from all backgrounds.....Human resources departments of construction companies have an important role to play in their inclusivity practices for staff recruitment, selection, and retention' (CM, 2020).

CM also reports Angelene Clarke an Architectural consultant as observing that larger companies in the sector are endeavouring to be more inclusive however, it can be tokenistic if it not accompanied by real change in inclusion and progression in career for people from a BAME background. For Dean Jones the Director of Strategic Projects at Cranfield University, 'Diversity seems to be more of a buzzword and a tick-box exercise in a lot of organisations which is a shame as the current construction workforce in the UK is more culturally diverse than ever before. But the significant lack of racial diversity at the top of these organisations is plainly obvious' (CM, 2020).

The BE still has a long way to go to ensure that everyone feels included according to Building Magazine's diversity and inclusion study (Marshall, 2020). Marshall reports that while only 41% of white professional respondents did not feel secure in their jobs, more than half (58%) of black respondents felt insecure. Even more black respondents (76%) believed that their ethnicity hampered their ability to find employment in the sector.

Solat writes for the National Centre for Diversity and echoes the aforementioned concerns. He argues that diversity is morally and culturally imperative and good for business. He advocates three important reasons for diversifying the sector:

- The pool of talent is increasingly diverse (with a more diversified UK workforce) however, BE employers are neglecting a huge population of skilled talents thereby significantly shrinking their talent pool when they keep hiring and retaining homogenous groups of people.
- The pool of consumers is more than ever before increasingly diverse therefore, any company that ignores diversity is losing out on sales and ultimately revenues.
- Diverse workforces are the key to innovation and innovation is significantly boosted by diversity.

Solat concludes by stating that 'it seems shocking that with the level of technology and advancement the UK's Construction industry is so far behind in an area which is equally, if not more, important.'

It is also pertinent to look at the BE because despite much research into differential degree outcomes of students in UK higher education, there is no substantial study of the DAG in relation to BE courses. Much of the available literature is in the Social Sciences. There is also little data on BAMEs in the industry (CABE 2005). Furthermore, many studies in the BE sector that have been carried out investigate gender inequality while racial inequality has attracted limited research (Gale et al. 2003). This dearth in literature of BAME students' differential degree outcome and its impact on BAME presence in the industry herald the importance of addressing this inequity with a specific focus on ethnicity.

3.5. Impact of the DAG on BE graduate employment

A minimum of a 2:1 and a first-class degree are required for many graduate-level positions (National Careers Service) and a large number of BAME students in the BE fail to meet this prerequisite. For which ethnicity is a notable contributory factor even when other factors have been controlled as noted in chapter one. This is particularly significant for the BE industry where the disparity is even more pronounced with the near absence of BAMEs in the industry and particularly at the middle and senior management positions (Caplan,

Dainty and Jackson, 2002; Chartered Institute of Personal Development 2017). HEIs therefore need to examine barriers that affect BAME students' learning experiences, their progression and achievement, and which often make them lose the transforming power of HE.

3.5.1 Impact on employment and progression in the industry

The Latham Review (1994), the Macpherson Report (1990) and the Committee on Women in Science, Engineering and Technology (1994) were big pointers to the dearth of women in construction. With these reports came the awareness that MEs were also very underrepresented in the sector. The first research that looked at the underrepresentation of MEs in the industry was the Royal Holloway Report (1999). Whereas many studies have subsequently been carried on gender inequality as noted above, there is little research on BAME representation (CABE 2005) in a demographically skewed industry. The industry's skewedness is supported by the fact that, according to GMB Union (2019), only 12.5% of construction workers are women and 5.4% are BAME. Many graduate level jobs have 2:1 and first class as a minimum entry requirement and many BAME students fall short of this requirement. This notwithstanding, research carried out by the Royal Academy of Engineering found that BAMEs in the BE industry face barriers in employability outcomes which even controlling for degree outcomes does not eliminate (Mellors-Bourne 2016).

Evidence suggests that the ethnic diversity within the BE workforce has not kept up with the growing diversity of the UK population and with the current global scrutiny of workforce diversity, the BE industry needs to tackle as a matter of priority, this longstanding underrepresentation of BAMEs in its workforce. The UK construction industry, for instance, is one of the biggest employers of labour and accounts for over 9% of the UK workforce (BEIS 2019). About 41% of the industry's workforce are self-employed (HSE, 2018). Despite having such a big share in the country's workforce, the sector has the least favourable employment record for women and BAME workers (Gale *et al.*, 2003; GMB Union, 2019). It is historically a white male dominated sector. While some progress has been made in recent years to address this inequality, change and attendant effects have been very slow.

Although the proportion of BAME students in the BE sector of HE has increased due to WP in education, this has not translated into equitable outcomes for them and most do not end up in the industry (Caplan *et al.*, 2009). Student attainment however goes beyond degree outcome as it involves success in HE and future attainment – employment or postgraduate studies (Mutton and Plowden 2016). The world is getting more globalised with each passing day, and the UK built environment industry must be radical to meet the

needs of the nation's diverse population, be able to operate internationally, be fit for the future and play its part in dismantling the systemic inequality in British society and reflect the desirable balance in representation.

Ethnicity should not be a barrier to employment or career progression, but clearly, BAMEs struggle to get into the BE sector and when there, find it equally hard to progress (CABE, 2005; Cabanas, Collier and Seed, 2020) beyond the glass ceiling as indicated by their long-standing underrepresentation especially at the management levels. Just 5.4% of the 3.1 million people working in the construction industry for instance are BAMEs (BEIS 2019), and according to CIOB (2020), 94% of senior managers, and directors are white and only 3.2% are BAMEs. Caplan *et al.* (2009) stated that the underrepresentation of the BAME population in the industry had not yielded any obvious results as a result of advocating the business case and in 2020, the sector had not significantly changed in diversity despite all the declarations of equality and diversity action plans. Brexit has increased the challenge of skills shortage in the industry, and the industry needs to prioritise recruiting BAMEs from UK's diverse population.

For Caplan *et al.* (2009), the business case for diversifying the industry which underutilises the talents and skills of BAME population and who 'could increase organisational efficiency and effectiveness,' the claims are not totally convincing. This is however not consistent with CIOB (2020)'s assertion that the need to balance the honest discourse to recruitment makes business and ethical sense. In line with the CIOB, McKinsey & Company (2015) argue that employers need to understand that diversity is a business imperative that fosters better business outcome. Former president of the Chartered Institute of Building (CIOB), Prof Charles Egbu, agrees with McKinsey & Co and reiterates that the construction industry needs to recruit and retain people from all backgrounds to improve the current situation (CIOB 2020). The industry needs to eliminate barriers to the engagement of a more diverse workforce that is representative of the British society.

3.5.2 Impact on employment in HEIs

HEIs need to show that they are seriously addressing differential degree outcomes which inhibit BAMEs in the procurement of relevant and sustainable graduate-level jobs as well as in the pursuit of further studies. If BAME students do not have equality of progression, this has a ripple effect on the industry and the UK higher education which also needs to increase the pool of its BAME academics (Ajaefobi, Ebohon and Kangwa 2021).

The lack of BAME role models in HEIs, especially in senior positions, is one of the barriers to student progression and academic success. There needs to be diversity in HEI staff and an underrepresentation of BAME academics means a lack in the range of perspectives

available in the BE in UK higher education that does not reflect the diversity in the society and in many HEIs.

A 'diversity deficit' also impacts on BAME students' aspirations into academia and sense of belonging which in turn have great impact on equitable outcomes. Systemic and institutional barriers to careers in the academia and progression within the same need to be removed for enhanced BAME full participation.

3.6. The DAG and higher education in the BE

As noted above, despite the fact that the DAG phenomenon has been widely acknowledged and a lot of research carried out in many fields, it is still under-researched in the BE sector. With growing global population, the internalisation and globalisation of education, the number of BAME students in the BE in HE is increasing steadily as is obtainable in other disciplines. HEIs are being challenged to adapt to the changing times by developing equitable environments that can meet the different requirements of the ethnically diverse UK population. Equitable learning environments also ensure the removal of barriers that affect BAME students' learning experiences, their progression and degree outcomes.

3.6.1 Factors associated with the DAG in the BE

Several factors are associated with the differential degree outcomes in the BE sector most of which are applicable in other disciplines and have been discussed in Chapter two. Factors below are discussed with relatedness to the BE sector.

3.6.1.1 The BE curriculum

The DAG is an equity gap and a critical analysis of relevant literature highlighted the importance of decolonizing the BE curricula in HE and how a decolonized curriculum can be a key driver for addressing educational inequality in UK higher education and contribute to achieving a much-desired diversified and egalitarian BE sector. The BE like other disciplines has been dominated by the Eurocentric perspective with foundations fundamentally rooted in colonialism and distorted presentations and marginalisation of alternative worldviews where those other worldviews are even mentioned.

The changing demographics in UK higher education challenge Eurocentric narratives of much of the BE curriculum which subjugate counter narratives and make the curriculum unrelatable to most BAME students. A re-evaluation of the content of curricula is therefore very vital and other perspectives need to be heard and seen but not as a tokenistic gesture (Ajaefobi, Ebohon and Kangwa 2021). Where they are not visible, they need to be sourced out so that curricula scopes can be widened. The western perspective is not the sole or

best narrative but only a part of the whole; neither does the West exclusively have something to offer to critical aspects of HE like teaching and learning. Diverse ontology, perspectives and experiences must be valued to address inequality and maximise support for the learning experiences and outcomes of a diverse student body. This in turn aids the reduction and stop to the perpetuation of injustices and inequity rooted in the fabrics of the society and which translate to biases in HEIs.

According to Advance HE (2019), Eurocentric curricula constitute part of structural privileges that reinforce racial and educational inequalities. Furthermore, Universities UK (UUK) and the National Union of Students (NUS) suggest that HEIs need to consider what effects prevailing curricula and teaching and assessment practices have on students especially for students that are BAME whose backgrounds and perspectives are often disproportionately valued (UUK and NUS 2019).

Decolonising the BE curriculum is a holistic exercise. While devising reflective reading lists that include BAME authors and represent a broad spectrum is very welcome, it entails more than that. It entails critiquing western narratives and values as much as others. It is about including counter narratives and drawing from their perspectives to have broader, robust, more dynamic and outcome focused curricula and to dismantle epistemic injustice. Although more imperative for HEIs with high population of BAMEs, it is also important for HEIs with a smaller population of BAMEs considering the demographics of the UK to which students enter at the end of the courses. CABE (2005) reports that BAME students particularly in Architecture stated that their course lacked cultural diversity, and this was detrimental to their studies. BE staff should strive to embed equity and cultural dexterity in their teaching and interactions with students. HEIs with BE sector need to ask like Singh (2016),

'How are oppressed groups/peoples represented in the curriculum – as absent, as a problem, as deviant, as exotic, as deficient, as dangerous, as passive spectators, or as co-producers, role models, intelligent, as 'normal' people?'

HE has become more internationalised, and the mobility of international students necessitates that HEIs must deliberately address the demands of their varied BE student population in order to prepare them for the workplace in whichever society they come from. Many countries invest heavily on HE and expect their citizens to acquire knowledge that is adaptable and relevant to their needs. Although Caplan *et al.* (2009) indicate that there might be a case made for giving non-Western methods of design and construction more weight in the curriculum as BAME students will benefit from drawing on their ethnic

backgrounds, even non-BAME students stand to benefit from a diversified curriculum. In addition to intellectual capabilities, HEIs must ensure that curricula empower students in the acquisition of skills and competences relevant to their lives and their functioning in a pluralistic society and the global community.

3.6.1.4 Work experience placements

Work experience placements (which are win-win situations for students and employers) play a key role in BE courses since these help students to apply intellectual knowledge in a professional environment. Students who participate in industry placements, acquire connections that can help in finding a professional employment. They can also acquire life skills that are very desirable for employment like organisational skills, teamwork and the ability to meet deadlines.

Barriers to obtaining a work placement make it more difficult for BAMEs than for their white counterparts (CABE, 2005; Caplan et al., 2009), and they may have to apply to more places to be successful. BAME students may be discouraged by the realisation that they apply to more places in order to be accepted for placement (Caplan and Gilham, 2005). Even BAME names can become a barrier to getting a placement. HEIs and the industry need to collaborate and provide formal help and support for BAME students to level the placement advantage.

3.6.1.2 Retention and progression

Concerns about the retention, progression, and attainment of BAME students in the BE are a major feature in the quest by the industry to eliminate barriers to the engagement of a more diverse workforce inherent of the race designations of the British society. The same concerns persist in HEIs where there is a lot of nebulous talk to increase their pool of BAME academics. The demographic composition of the people on BE courses and the country's labour force is unmatched by the BE academia and industry.

Retention refers to the expectation that students remain in an HEI, progress and complete a study programme (Advance HE, 2020) within a specified timeframe (HEA, 2015). It is described by the National Audit Office (NAO, 2007) as the proportion of students who continue with their HE courses after the first year. Caplan *et al.*, (2009) noted in their report that a good number of BAME students in the BE fail to complete their courses.

Retention rates have been differential and linked to student characteristics with BAME students having lower rates than white students. CABE in 2005 noted that while there was little data on BAMEs in the BE, available data showed that BAME students fared worse in academic progress than their white peers in the sector. Ruth Woodfield in an Advance HE report (Woodfield, 2014) stated that there are variations in retention rates across

disciplines and this variance is also seen in the reasons for non-continuation. The report further stated that STEM and social sciences disciplines including the BE attributed most students' withdrawal to academic failure. It may be possible that academic failure stems from a lack of integration and engagement with all aspects of the university experience in addition to other causes of student attrition. In Woodfield's report (2014), there was little disparity between the non-continuation rates of part-time and full-time students in the BE; the most given reason was academic failure and BAME students were over-represented in the leavers.

It is crucial to universities that students graduate to ensure students get the best out of HE. The setback of withdrawing from HE may even be more damaging than the setback of not being able to get into HE. Given the amount of money invested into HE, student attrition means a waste of money to the students and a loss of revenue for the university. The BE industry, HEIs and the society are also affected because they benefit from higher retention rates of BAME students as the greater incomes of skilled BAME graduates entering the workforce put more money into the economy. The ability of students to complete their courses and progress into professional employment enhances social mobility, which is of great importance to the BE sector, where BAMEs are vastly underrepresented.

3.6.3 The BE academic staff

What is taught, who teaches what and how it is taught are vital issues for all disciplines (Dhanda 2010) including the BE sector and is equally relevant to the WP discourse. One of the barriers to student progression and academic success is the near absence of BAME role models. As noted earlier, there is an underrepresentation of BAME staff in the BE sector of HEIs (particularly academics) and this has great consequences for institutions.

It also affects how they deal with the awarding gap as the few BAME staff are often tasked with the responsibility of addressing BAME related issues (UUK and NUS, 2019). A paucity of BAME academics also means a limitation in the range of perspectives offered in UK higher education which is neither reflective of the diversity in the UK society nor the current globalisation of education. The BE is particularly susceptible because of the endemic and cyclical gross BAME underrepresentation in the industry despite the background of a large number of BAME students on BE courses. In addition, the BE needs to maintain disciplinary currency.

3.7 Racism/biases and the BE

The racial injustice caused by colonialism manifests itself in many ways within the BE sector (HEIs and the industry), some overt and some covert. This is true of 'ingrained

racism and exclusionary practices' (Caplan *et al.*, 2019) in the BE which can be subtle or very obvious, and it may be difficult for persons from different ethnic backgrounds to relate to the experiences of those from BAME backgrounds (Nagel, 2020). Nagel cites the example of a black employee at a company with a small number of black staff who would discuss among themselves whether attending a client meeting together would be seen as a misrepresentation of the company. The same black employee also saw how top black managers were hesitant to promote or provide benefits to deserving black employees out of concern that they would be perceived as favouring minorities.

Cabanas, Collier and Seed (2020) argue that racism and structural inequality in the BE sector must be tackled to end the perpetuation of disadvantaged specific groups. This is attested to by *The Architect's Journal* survey investigating race within the industry (White, 2020) which showed that racism is becoming 'more widespread' rather than decreasing. According to the survey, people from a BAME background who perceive racism as being more widespread increased by 10% from 23% in 2018 to 33% in 2020. The percentage is even greater for Black, African and Caribbean respondents 43% of whom say racism is 'widely prevalent.' This is a 13% rise compared to 30% two years previously. On the contrary, only 17% of white respondents think that racism is widespread in the profession, and this is still a 9% increase from 8% in 2018.

Pathmajothy (2020) reiterates the need to eradicate racism in the sector not just for a moral case but also for the business case. Skills shortage in the industry according to him is compounded by Brexit and the industry ought to promote recruiting and retaining diversity of talents. This supports the proposition put out by a former CIOB President Prof. Charles Egbu noted above. Pathmajothy (2020) goes on to state that the 'lip service and tokenistic diversity initiatives' that organisations have historically utilised, including recruiting a small number of BAME staff, is no longer effective. There should be evident organisational commitment to inclusivity.

Additionally, Abisogun (2019) argues that there is racism in the sector albeit more covert than in years gone by which probably makes it easier to overlook or to ignore equality and inclusion policies and initiatives as political correctness. For those BE organisations who claim to hire employees only based on merit, Abisogun further argues that, 'In a perfect world, hiring on merit would be the ideal scenario but, unfortunately, not everyone has been given an equal platform to achieve this merit.'

3.7.1 Barriers to a more diverse BE workforce

Graduates from BAME backgrounds have considerable barriers in the workplace and compared to white graduates, they have worse employment outcomes (Mellors-Bourne 2016). Improving the diversity of the BE workforce is needful but maintaining an egalitarian workplace where all staff feel respected and not subject to discrimination is what is required. Maintaining alienating practices which perpetuate inequity within the sector is akin to institutionalising discrimination. Some of these practices already fall under the category of institutionalised racism. A more diverse, inclusive, and equitable BE is hampered by several barriers some of which are discussed below.

3.7.1.1 Image of the industry

The BE has an infamous white and male workplace culture and recruitment into the industry is negatively impacted by this reputation both for women and for BAMEs. Caplan *et al.* (2009) described the construction industry as being perceived to be “a relatively low-status industry with hard and inflexible working conditions and a persistent ‘laddish’ culture in a white, male dominated environment.” They argued further that the paucity of BAME representation in the industry exacerbates this image of an unwelcoming environment for MEs and the industry keeps replicating a workforce that is predominately white.

3.7.1.2 Recruitment practices

The recruitment practices of the industry are seen as a ‘fundamental barrier to the increased representation of non-traditional entrants’ (Dainty *et al.*, 2004). Hiring practices are skewed and based on social networks and this is seen in the lack of equitable communication strategy and feedback. People are mostly informed of potential employment opportunities by the exclusionary practice of word of mouth (Caplan *et al.* 2009). The procedures for obtaining contracts and traditional procurement plans according to Caplan *et al.* are also undermined by the use of word-of-mouth and approved lists of potential contractors which discriminate against BAME contractors.

3.7.1.3 Lack of diversity in staffing and leadership

The near absence of BAMEs in the industry particularly at the middle and senior management level (Caplan, Dainty and Jackson, 2002) against the predominance of BAME students on BE courses (CABE, 2005; CEMS, 2002) authenticates the fact that the industry is not wholly a meritocracy and lends credence to the awarding gap being the ‘unspoken shame’ of UK higher education. The legacy of structural and systemic racism can be seen in this underrepresentation which also results in lack of support, lack of role models and mentors for BAME background employees.

3.7.1.4 Progression in career

There are structural barriers and glass ceiling to career progression for BAME employees (Caplan *et al.*, 2009) and many state that compared to their white peers, they need to work harder to progress or be recognised. Although the support given to BAME staff in their career development have gradually improved over the years, Caplan *et al.* (2009) found that BAMEs are still not supported by their managers to the same extent as their white counterparts. This often results in lower self-esteem for BAMEs.

Pathmajothy (2020) reports a recent study that revealed that 76% of Black and 77% of Asian employees in the construction sector reported barriers to their career progression which were related to their race or other protected characteristics. Almost half of the BAME respondents went on to express their disagreement with the statement that their organisation was actively promoting underrepresented groups, particularly for leadership positions.

3.7.1.5 Racial discrimination and microaggression

Although a lot of change has taken place, microaggressions and racial discrimination are still being reported by BAMEs in the sector as Caplan *et al.* (2009) and (CABE, 2005) found out. These can range from name-calling and stereotype assumptions to physical intimidation. BAMEs are stereotyped as aggressive or confrontational if they disagree or challenge any decision or opinion while this is seen as commendable if done by white colleagues. BAMEs have sometimes been denied benefits or opportunities including training opportunities, overtime, and promotion. These also present as barriers to appropriate representation and progression of BAMEs in the sector.

Despite declarations made in policy statements by organisations within the sector about equality and fairness, BAME staff who do not share the same culture with their white colleagues experience being "othered." Racial intolerance and 'othering' are seen in the jokes and banter (sometimes at the expense of the 'othered') and are part of the culture in the sector.

3.7.1.6 Lack of informal networks

BAMEs lack the informal networks to overcome barriers in the industry (Caplan *et al.*, 2009). Such networks are prevalent within white communities and are used for the dissipation of information about work opportunities, work-based trainings, contracts for examples, in the sector.

3.7.1.7 Advice about careers in the BE

In primary and secondary education, careers counselling and education services fail to create the awareness of and appropriately advice on professions in the BE. As a result,

school pupils generally do not know about the employment opportunities in the BE (Caplan *et al.*, 2009). Because these opportunities are usually passed by word of mouth, BAME students are disproportionately disadvantaged as they lack the necessary information networks.

3.7.2 Racism and biases in the BE sector of HEIs

It was noted in chapter two (2.10.8) that are biases and racism in HE and the BE is not exempt from that. Institutional racism and systemic injustice have been supported by the histories and structures of universities, and HEIs though ostensibly committed to racial equality and are viewed as liberal spaces, have not found the fight for equity in HEIs simple. It's been difficult because of the power of privileges and HEIs' complacency (Pilkington, 2012).

3.7.3 Tackling Racism and biases in the sector

Government legislation and the need to tap from the talents of all employees irrespective of their gender or background have started to motivate employers in the construction industry to strive harder towards the removal of discriminating barriers (Dainty *et al.*, 2004). This it has been argued will promote business and give a competitive edge. As a result of these, conscious efforts are being made by companies in the industry to increase the number of women and BAMEs employed by them and to ensure equality of progression. However, Dainty *et al.* (2004) argue that these efforts might be short sighted and opportunistic because the work environment is still very much inequitable for BAMEs and women. Real change can only be produced when proactive measures are put in place to remove discriminatory practices and structures and to ensure equality of progression. Structures that serve to perpetuate inequality need to be challenged.

Abisogun (2019) reiterates that there is racism in the sector and proven findings from previous studies clearly show the benefits of a diverse workforce which he listed as:

- improved team performance
- an easier hiring and retention process
- greater creativity
- a better understanding of customers and
- an improved brand.

He therefore wonders, 'if this is the case, why are we still not addressing the race issue?'

Dainty *et al.*'s stance above is consistent with CIOB's charter and special report to boost diversity and inclusion (CIOB, 2021) which makes it clear that a more diverse workforce must be encouraged and treated as an industry priority in order for businesses to thrive

and survive. In the words of the report, the following are five actions set out for improving diversity and inclusion, enhancing employee sense of belonging and helping to address the skills shortage in the industry:

- Showing leadership
- Making a plan
- Shaping the culture
- Being transparent
- Being accountable.

Furthermore, CIOB asserts that judging by findings from case studies from the construction industry around the globe, these five actions are impactful and effective. However, the institute warns that the needed change will take time and involves organisations changing their cultures and processes.

3.8 Chapter summary

Chapter three has reviewed relevant literature from the context of the BE, identified the gap in knowledge and demonstrated how this study adds to existing body of knowledge in the quest to eliminate the DAG in the BE sector.

4. Research Methodology

4.1 Introduction to chapter four

The whole process undertaken to achieve a research aim is known as the research methodology. According to Hesse-Biber and Leavy, (2011) research methodology can be thought of as a bridge that joins the philosophical perspective with the research methods. This chapter reviews a range of research philosophies and designs and presents the research methodological process adopted for this research for the purpose of answering the research questions. The justification for the choices adopted is also discussed. This exploratory research has adopted the 'research onion' model of Saunders *et al.* (2015) in order to depict the factors that informed the choice of appropriate data collection and data analysis methods with which the research aim will be achieved.

4.2 The Research onion

The use of the 'onion' with layers is very symbolic and depicts the 'peeling off' one needs to do to get to the centre of the onion (data collection and data analysis techniques). This is very crucial in aligning research methodology from the onset to the objectives of the research so that the aim can be achieved. The outer layer is the research philosophy, which is characterised by the assumptions one holds, and this underpins the research. These assumptions are epistemological, ontological and axiological (Saunders *et al.*, 2015).

After moving past philosophy, one gets to the approaches to theory development (research approach) which can be deductive, inductive or abductive. The next layer is the research design in which one considers the justifiable methodological choice to use – quantitative, qualitative or the mixed methods. Having considered the method to use to achieve the aim of the study, adopting a research strategy naturally follows and this looks at how the research questions will be answered. Saunders *et al.* (2015) propound experiment, survey, archival and documentary research, case study, ethnography, action research, grounded theory and narrative inquiry as various strategies that can be used to carry out a research. In addition, most times several strategies will be combined to solve the problem of a particular research (Bazeley, 2009). Every research has a time limit and Saunders *et al.* call this the time horizon and posit two types of time limits: cross-sectional and longitudinal for every research. Within the time limit, it is expected that the research should be completed.

Research methods or research techniques form the next layer. One's philosophical stance and research questions to be answered are the determinants of the choice of research methods. Choice of methods includes – surveys, interviews, questionnaires, focus groups discussions, documents, observation, archival records and artefacts. Data analysis for

quantitative data involves the interpretation of numbers and figures while common trends and patterns are analysed for qualitative data.

This study adopted the research onion framework because of its clarity and systematic approach going from layer to layer to try to unravel the DAG.

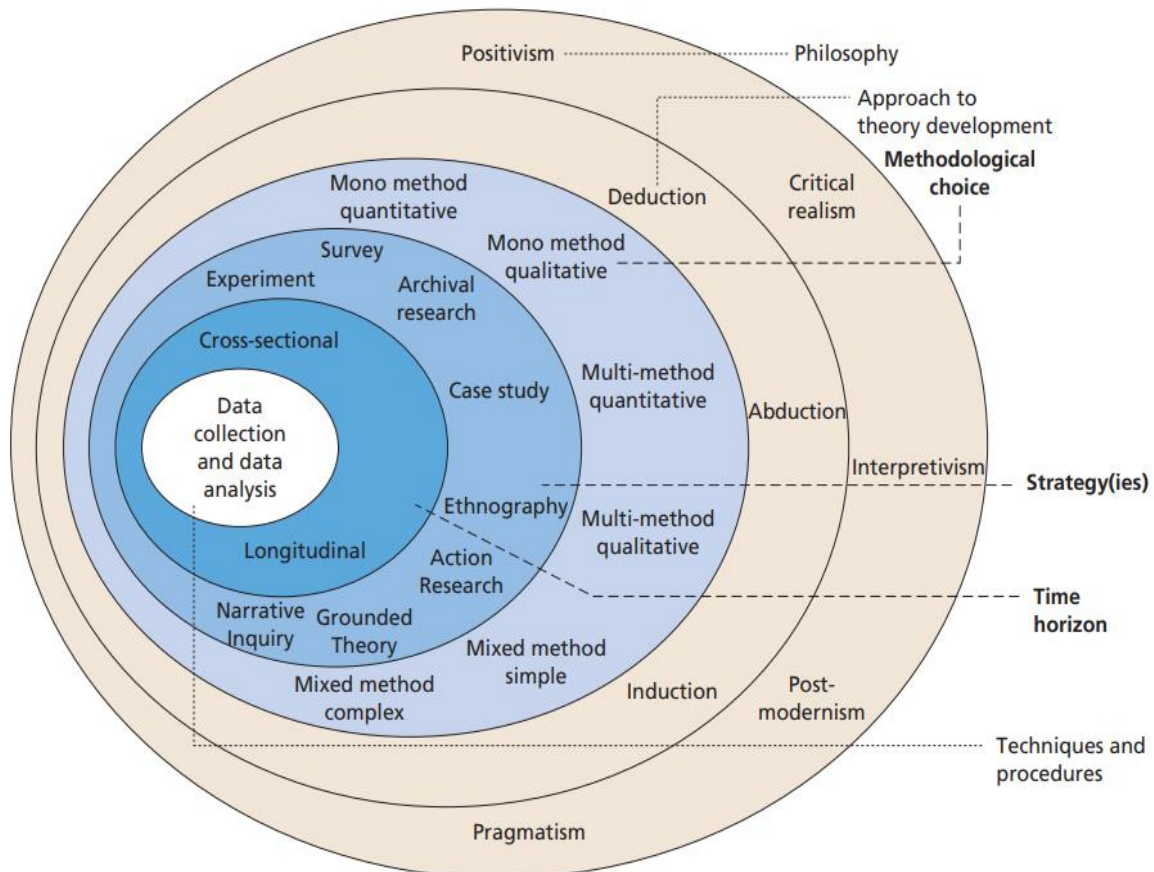


Fig 4.1 The research 'onion' (Source: Saunders et al., 2015)

4.3 Research Philosophy

Saunders *et al.* (2015) define the term research philosophy as 'a system of beliefs and assumptions about the development of knowledge' and they go further to classify research philosophy into five viz: positivism, critical realism, interpretivism, post-modernism and pragmatism. Research philosophy is concerned with the origin and nature of knowledge and the assumptions one holds about the world and one's ways of understanding the world (Ansari *et al.*, 2016). Clearly, these assumptions underpin the whole process (approach, design, strategy, data collection and techniques for analysis) of any research. According to Flick (2013), and Gao and Low (2014) and illustrated in Fig 4.1, research philosophical stance is based on three assumptions – ontology, epistemology and axiology) and an understanding of these assumptions will aid the decision one makes on philosophical choices.

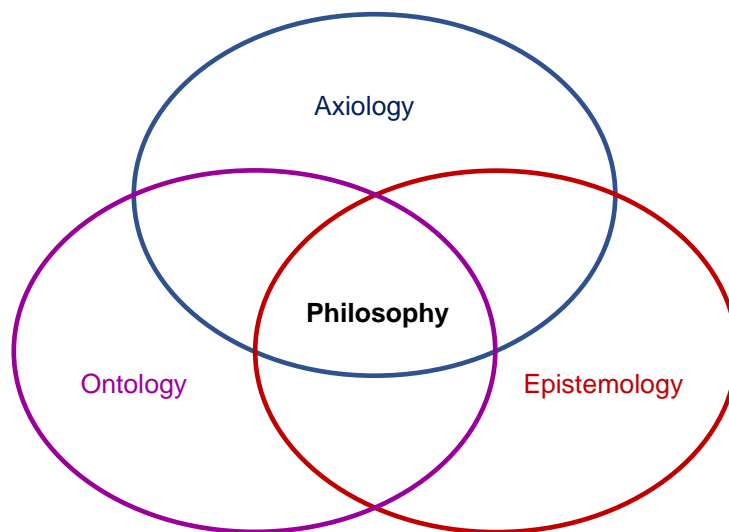


Fig 4.2 Philosophical assumptions

The philosophical choice will undoubtedly have implications on the methods used for the research and the difference between the research philosophies lies in where their assumptions fall on the objectivism–subjectivism continua. This is illustrated in Table 4.1.

To explain the objectivism-subjectivism continua, Huizing (2007)'s definition of objectivism and Saunders *et al.* (2015)'s definition of subjectivism are apt. Huizing (2007) states that, 'The motivating concern of objectivism is...to provide people with law-like, rational knowledge that will help them function successfully in the external world' in the words of. This is echoed by Crotty (1998). For subjectivism, Saunders *et al.*, (2015) posit that social events come about through the language, perceptions and consequent actions of social actors. So, while objectivism states that social entities exist outside of and independent of social actors and its assumptions come from the natural sciences and denies that truth is a social object, subjectivism imbibes assumptions of the humanities and arts and state that people's understanding, and truth depend on the culture of people and where they live.

4.3.1 Philosophical assumptions

4.3.1.1 Ontology

Ontology is concerned with what is there in the social world and one's assumptions and views about the nature of that social reality (Bryman and Bell, 2011; Guba and Lincoln, 1994; Hesse-Biber and Leavy, 2011). One's ontological position determines the way one sees the nature of the reality being studied and one's choice of what is to be researched according to Saunders *et al.*, (2015) who also posit that ontology could be objective or subjective.

4.3.1.2 Epistemology

The nature of knowledge and methods of knowing and understanding social reality are the focus of epistemology. Creswell (2013) states that epistemology sees the relationship between the researcher and the subject of study as being interconnected rather than independent. Epistemological assumptions are concerned with how one understands the world, what constitutes acceptable knowledge and how to communicate this knowledge to others (Burrell and Morgan, 1979). Epistemology looks at what one knows and how one comes about that knowledge. Interpretivism and positivism are the two primary ways of knowing.

4.3.1.3 Axiology

Axiology the 'theory of values' is concerned with the nature of values, how values come about in the society and what is inherently worthwhile. Saunders *et al.* (2015) state that it 'refers to the role of values and ethics within the research process.' The philosophical assumption one makes and one's choice of data collection indicates one's values. They further suggest that axiology deals with how researchers deal with their values and the values of their research participants. This is in consonance with Creswell (2013) that posits that all research is value-laden and incorporates the researcher's value systems.

Table 4.1 (Source: Saunders *et al.*, 2015) is a summary of the objectivist and subjectivist continua as they relate to the philosophical assumptions: ontology, epistemology and axiology. In order to select an appropriate research design for a study, it is crucial, according to Easterby-Smith *et al.* (2008), to have a good understanding of research philosophy.

Table 4.1 Philosophical assumptions as a multidimensional set of continua

Assumption type	Questions	Continua with two sets of extremes		
		Objectivism	↔	Subjectivism
Ontology	<ul style="list-style-type: none"> • What is the nature of reality? • What is the world like? • For example: <ul style="list-style-type: none"> – What are organisations like? – What is it like being in organisations? – What is it like being a manager or being managed? 	Real External One true reality (universalism) Granular (things) Order	↔ ↔ ↔ ↔ ↔	Nominal/decided by Convention Socially constructed Multiple realities (relativism) Flowing (processes) Chaos
Epistemology	<ul style="list-style-type: none"> • How can we know what we know? • What is considered acceptable knowledge? 	Adopt assumptions of the natural scientist Facts	↔ ↔	Adopt the assumptions of the arts and humanities Opinions

	<ul style="list-style-type: none"> • What constitutes good-quality data? • What kinds of contribution to knowledge can be made? 	<p>Numbers</p> <p>Observable phenomena</p> <p>Law-like generalisations</p>	<p>⇔</p> <p>⇔</p> <p>⇔</p>	<p>Narratives</p> <p>Attributed meanings</p> <p>Individuals and contexts, specifics</p>
Axiology	<ul style="list-style-type: none"> • What is the role of values in research? How should we treat our own values when we do research? • How should we deal with the values of research participants? 	<p>Value-free</p> <p>Detachment</p>	<p>⇔</p> <p>⇔</p>	<p>Value-bound</p> <p>Integral and reflexive</p>

4.3.2 Research Paradigms

Research paradigm according to Johnson and Christensen (2014), is a perspective that is based on the set of shared assumptions, values, concepts and practices. In other words, it is an approach to thinking about and doing research and helps in deciding what research methods and philosophical assumptions to adopt. Saunders *et al.*, (2015) propose five types of research paradigms or philosophical stances associated with philosophies - positivism, critical realism, interpretivism, post-modernism and pragmatism.

4.3.2.1 Positivism

The philosophy of positivism relies on drawing generalizations from an observable social reality. Natural science is drawn to positivism because positivism deals with knowledge that is factual and obtained through measurable observation. In order to achieve the aim and objectives of the research, the researcher is independent (neutral and detached) of the study and functions as data collector and interpreter and the observations lead to statistical analysis to see if the hypothesis holds true.

4.3.2.2 Critical realism

Critical realism's focal point is on explaining what we see and experience, in terms of the underlying structures of reality that shape the observable events (Saunders *et al.*, 2015). It argues that what is seen sometimes are sensations rather than real things as reality is external and independent.

4.3.2.3 Interpretivism

According to interpretative philosophy, there are many truths and meanings of a simple fact that can be appropriate for every situation and for every research problem (Johnson and

Christensen, 2014) because humans beings create meanings (Saunders *et al.*, 2015). So interpretivism necessitates considering the participants' subjective perspectives within the phenomenon under investigation (Creswell, 2013). There is therefore no single truth. Saunders *et al.*, go on to state that interpretivism is concerned with creating new, richer understanding and interpretations of social worlds and contexts. The research interacts with the environment and gives their own interpretation of events thereby incorporating human interest in the study. Because interpretivism creates new, richer understanding and interpretations in a study, it lends itself to the use of various methods and emphasises qualitative analysis.

4.3.2.4 Post-modernism

Saunders *et al.* (2015) have projected postmodernism as a philosophy 'that emphasises the role of language and of power relations, seeking to question accepted ways of thinking and give voice to alternative marginalised views.' Postmodernists believe the only order in the social world is what humans give it at any point in time and there is no way of determining what is right or wrong. What is deemed wrong today, could easily become right with time (in other words, it is provisional). Post-modern research seeks to radically challenge established schools of thought and knowledge (Saunders *et al.*, 2015).

4.3.2.5 Pragmatism

Pragmatism research philosophy is a worldview that underpins many mixed methods research. It starts with a problem and argues that the research philosophy for a study should be determined by the research question and the best method is the one which solves the problem. Pragmatism recognises that there are different ways to solve a problem since there are many realities (constantly changing and being interpreted) and no one perspective is able to fully depict the whole picture (Johnson and Christensen, 2014; Creswell, 2013). Pragmatist research therefore has components of objectivism and subjectivism as well as positivism and interpretivism.

4.4 Research Approach

There are two basic approaches to reasoning in research: deductive and inductive (Anderson, 2009) however, Saunders *et al.* (2015) and Suddaby (2006) posit a third: abductive reasoning. Table 4.2 below illustrates these three research approaches.

The **deductive** approach entails formulating a theory based on existing knowledge and putting it to the test empirically through a series of propositions (Creswell, 2013; Saunders *et al.*, 2015). Deductive reasoning takes place when a set of premises is used to derive a conclusion and the premises are true. Deductive reasoning naturally lends itself to the natural sciences.

Studies that use deductive approach mostly use the quantitative method for data collection and analysis.

Inductive approach is the opposite of the deductive (Creswell, 2013) and came as a result of social scientists being wary of deduction that did not take cognisance of how humans interpret the social world (Saunders *et al.*, 2015). Using the inductive approach, a researcher makes inferences about their findings for the phenomenon or theory that necessitated the research. Research based on this reasoning will more likely adopt the qualitative approach and use more than one method.

The third is the **abductive** approach which combines deduction and induction (Suddaby 2006; Saunders *et al.*, 2015). Abduction starts with a surprising fact being observed (Saunders *et al.*) and having observed the fact, which is in reality a conclusion, abduction seeks to find explanations for the surprising fact.

Table 4.2 (source: Saunders et al., 2015) presents a comparison of the three research approaches discussed above.

Table 4.2 Deduction, induction and abduction: from reason to research

	Deduction	Induction	Abduction
Logic	In a deductive inference, when the premises are true, the conclusion must also be true	In an inductive inference, known premises are used to generate untested conclusions	In an abductive inference, known premises are used to generate testable conclusions
Generalisability	Generalising from the general to the specific	Generalising from the specific to the general	Generalising from the interactions between the specific and the general
Use of data	Data collection is used to evaluate propositions or hypotheses related to an existing theory	Data collection is used to explore a phenomenon, identify themes and patterns and create a conceptual framework	Data collection is used to explore a phenomenon, identify themes and patterns, locate these in a conceptual framework and test this through subsequent data collection and so forth
Theory	Theory falsification or Verification	Theory generation and building	Theory generation or modification; incorporating existing theory where appropriate, to build new theory or modify existing theory

4.5 Research methodological choices

Authors place different meanings on research process classification which could be seen as research approaches as by Creswell, J. (2009) or methodological choice (Saunders *et al.*, 2015) or even research design. This study which adopted Saunders *et al.* research onion framework, looked at research process classification as methodological choice. Many authors classify the approaches as quantitative, qualitative and mixed methods while

Saunders *et al.* (2015) have classified the process as mono method, mixed method and multi-method. The mono method could be quantitative or qualitative; the mixed method (combining two methods) could be simple or complex and the multi-method which combines more than two methods could also be quantitative or qualitative.

4.6 Research Design

The research design refers to the broad plan (method and procedures) that one employs when conducting a research (Creswell 2013; Saunders *et al.*, 2015) and one's research methodological choice determines the research design. While Saunders *et al.* classify research design as being evaluative, explanatory, descriptive or exploratory (or a mixture of these), Creswell classifies it into five major designs – experimental, cross sectional, longitudinal, case study and comparative. These five classifications in the research onion are called research strategies.

Evaluative research measures how effective a system is and seeks to answer questions like 'how,' 'why,' 'who' or 'to what extent.'

Explanatory research is conducted to find a detailed explanation for a study. It is done for a problem not previously well researched. It does not give a conclusion but gives more effective explanation.

Descriptive research is in-depth research that tries to obtain accurate description of people, places, events or situations and answers questions about 'who,' 'what,' 'where,' 'when,' and 'how.'

Exploratory Research is concerned with understanding/finding out more about an issue or giving new insight into a phenomenon. It finds out something about a subject by answering the 'what' or 'how' question. According to Saunders, Lewis, and Thornhill (2009), the goal of explanatory research is to establish causal relationships between variables in order to explain how they are related.

4.7 Research Strategy

The next layer of the research onion is the research strategy. A research strategy is a plan that shows how the research will actually be carried out to achieve a goal. It shows how the research will answer the research question(s), collect and analyse data while reflecting the researcher's philosophy. The strategies are stratified into eight: experiment, survey, archival and documentary research, case study, ethnography, action research, grounded theory, and narrative inquiry.

Experiment strategy which has its roots in the natural sciences is complex and very scientific in structure. The experiment tests the causal effect of independent variables on dependent variables and produces data that is statistically analysed. The researcher cannot control the phenomena being investigated.

Survey strategy which usually answers the questions 'what', 'who', 'where', 'how much' and 'how many' allows on to collect rich data and is very economical and allows easy comparison. It is easy to understand and explain.

Archival and documentary research strategy allows one to use archive documents in the exploration and explanation of things that transpired over a long period of time. Such documents are easily available online from worldwide sources and so provide a lot of data sources.

Case study design looks in detail into a phenomenon with real life cases and studies people, processes, organisations and so forth within their setting to arrive at a clear conclusion.

Ethnography has its origin in anthropology and is used to study culture or a group of people in a detached way but staying in the community. It is used to study the culture or social world of a group.

Action research is an emergent process that seeks to solve a real problem in an organisation and collaborates with the researcher using a variety of knowledge forms and makes the researcher part of the organisation for the project (Coghlan and Brannick, 2014).

Grounded theory involves constructing theories about processes and behaviours using inductive reasoning. It builds on existing data and literature on the topic, and these are basis for new theories.

Narrative inquiry uses narratives such as stories, interviews, and life experiences to preserve chronological sequencing of events to research and understand the meanings people have of those events and to aid analysis (Saunders *et al.* 2015).

4.8 Time Horizon

The fifth and last layer of the research onion is the time horizon which refers to the time taken to complete the research. It could be cross-sectional which has a short duration or longitudinal which has a long span for completion.

4.9 Research Methods

Research methods are the processes or techniques used to collect data to be analysed in order to achieve the objectives of a research. Specific instruments are used as the techniques to get new information or to get a better understanding of the topic. Common techniques for data collection are survey/questionnaire, structured/semi structured interviews, experiment, focus groups, case study and observation.

Data analysis helps the researcher to review the data that has been collected and make inferences from them. After data has been analysed, validation takes place. Validation is the process of 'verifying research data, analysis and interpretation to establish their validity/credibility/authenticity' (Saunders *et al.*, 2015).

4.10 Methodological process for this Study

The methodological process for this research is patterned according to the research onion and shows the processes undertaken to achieve the research aim and objectives.

4.10.1 Philosophical stance

The philosophical stance for this study is pragmatism which is a middle ground between objectivism and subjectivism; and positivism and interpretivism. This philosophical stance was adopted because the research is consistent with it - begins with the identification of a problem (the DAG between BAME students and white students in the BE courses in UK HE) and has the aim of developing a strategic framework for HEIs that will hopefully eliminate the gap thereby informing future practice. This stance is buttressed by the fact that the research will involve many ways of interpreting the multiple realities (Saunders *et al*, 2015) in the issue of the DAG and the whole picture cannot be seen from a single point of view.

4.10.2 Thesis research approach

The reality of the 'surprising fact' that BAME students do less well in degree outcomes than white students as shown from the literature review is a conclusion not a premise and from it, a likely theory can be propounded for causality. This is in consonance with the abduction research approach (which combines deduction and induction) to theoretical development posited by Suddaby (2006) and Saunders *et al.* (2015) and justifies its adoption for this study. They argue that in abduction, a set of possible determined premises is given as enough reason to explain a conclusion and if the conclusion is true, the premise must be true also. With the DAG, previous research have seen that when postulated premises are controlled, the gap remains, and ethnicity is still a major factor. The conclusion therefore is true, but the premises are no longer true. Why this is so is a problem being investigated by current research and is

reason for this study. This approach has enabled the research to explore the DAG phenomenon among BAME students in BE sector of UK HE, develop a conceptual framework, inform the research design, strategies and methodological choice and produce practical outcomes.

4.10.3 Design

The research design for this study is exploratory because it seeks to find out more about the inability of BAME students in the BE to do as well as their white counterparts in the BE and being pragmatist, to propound practical outcomes. This is in line with Neuman (2011)'s assertion that for topics that are under researched, exploratory studies are a fitting choice and the DAG in the BE is very much under researched.

4.10.4 Methodological choice

According to Saunders et al (2015), the quantitative approach is often synonymous with data collection techniques or data analysis processes that generate or use numerical data. The approach uses techniques such as experiments and surveys and when numerical data are collected and analysed (such as through graphs and statistics), inferences are made using the generated numerical data (Yu, 2006). For this type of study, variables are measured and tested for frequency, trends and relationships, and the findings should indicate how representative, generalizable, and replicable the findings are (Creswell, 2009; Fetters, Curry and Creswell, 2013). The approach therefore gives breadth as it provides many views from which conclusions will be drawn.

Even though the quantitative method has several benefits, including the ability to infer causality and relatedness in variables and reach more objective findings, decreasing or eliminating subjectivity in judgement (Kealey and Protheroe, 1996), it also has some limitations. A major drawback is a low response rate, and it may take a long time to get sufficient responses. Additionally, the approach does not give contextual or in-depth information on the phenomenon and because of the structured nature of the questions..

Contrarily, the qualitative approach is used for data collection methods (such as interviewing, observation and focus group discussions) or data analysis procedures (such as categorising data) that employ or produce non-numeric data (Saunders *et al.*, 2015). This approach attempts to understand and interpret reasons, experiences, motivations and contexts to produce rich information about the subject or phenomena being investigated and to generate themes and ideas for potential solutions. It addresses 'how' and 'why' questions that are impossible to quantify, undertaken without prior formulations in a bid to gain understanding and collect information and data, such that theories will emerge.

One of the advantages of the qualitative approach as indicated by Patton (1980) is that because it employs unstructured primary data, it presents a holistic perspective of the phenomenon being investigated. This is supported further by the advantage that it can be used to investigate in depth fewer number of cases (Johnson and Onwuegbuzie, 2004).

The limitations of the qualitative approach include but are not limited to its time-consuming and labour-intensive data collection and analysis processes and the difficulty in investigating causality between phenomena (Matveev, 2002). Additionally, qualitative research is highly subjective, and the respondent can choose to share some stories and omit others (Matveev, 2002).

Fig 4.3 below illustrates the basic differences between the quantitative and qualitative approaches.

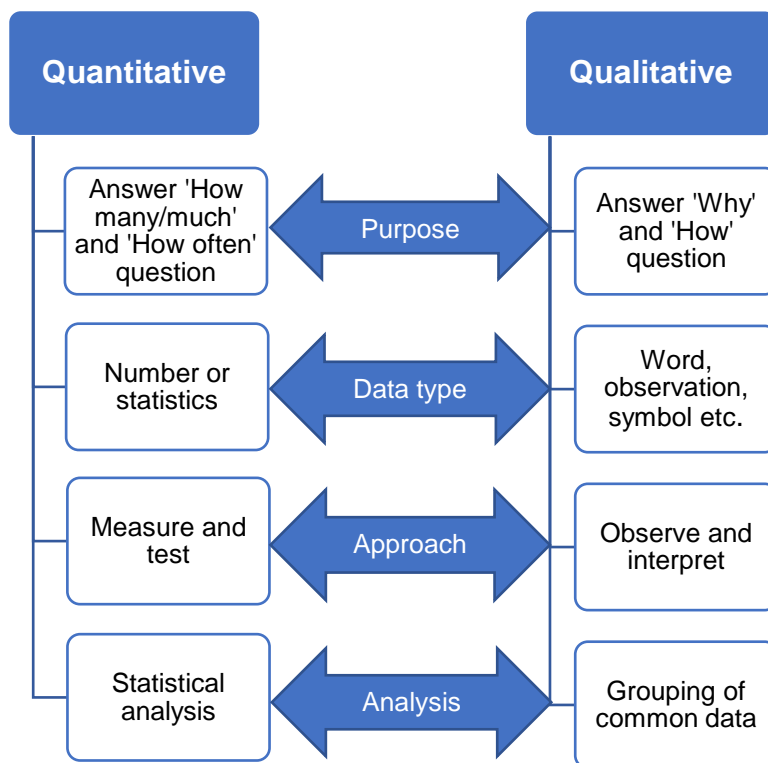


Fig 4.3 Differences between quantitative and qualitative approaches
 (Source: Adapted from Simply Psychology <https://www.simplypsychology.org/qualitative-quantitative.html>)

To achieve coherence in research design and maximise reliability and validity, this pragmatic research with an abductive approach was conducted using a MM research design which combines the qualitative and quantitative methodological choices to provide depth and breadth and better understanding of the complexity of the DAG to achieve the aim of the study. The quantitative approach which is a reductionist approach (Creswell, 2009) explored

causality and the magnitude (Fetters *et al.*, 2013) of the DAG while the qualitative approach explored why and how the DAG occurs and the experiences of BAME students (Teddlie and Tashakkori, 2006), providing depth while maintaining anonymity. Both methods therefore complemented each other.

4.10.4.1 Mixed method approach

Quantitative and qualitative research were previously viewed as two conflicting and mutually contradictory paradigms. This has changed, though, during the past three decades as researchers on both sides have come to recognise the value of each approach in the quest to fully understand complex research problems. Although some researchers employed more than one approach in a single study in the 1990s, it has grown more typical since then, according to Brannen and Moss (2012). Both approaches employ different methodologies and produce different data types, which when combined lead to a better holistic and nuanced understanding of the research problem. This better understanding orchestrated by the concept of triangulation in MM increases the validity of research findings because triangulation presents multiple findings regarding a phenomenon (Creswell, 2013) and reduces the inherent biases associated with single-approach studies. Triangulation has also led to an increase in mixed method research in diverse disciplines (Bryman, 2006) including the BE.

Johnson, Onwuegbuzie and Turner (2007) define MM research as:

the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.

According to Saunders *et al.* (2015) it is 'the branch of multiple methods research that combines the use of quantitative and qualitative data collection techniques and analytical procedures.' These techniques and procedures can be combined to different extents and in various ways (to emphasise the value of each approach) ranging from straightforward concurrent forms to more complex sequential ones as Creswell and Plano Clark (2011) have identified. While only the two main variations of the MM are briefly discussed below, the sequential can further be divided into sequential exploratory, sequential explanatory and sequential multiphase.

- *Concurrent mixed method:* quantitative and qualitative methods are used separately but within the same phase of data collection and analysis (they are done

concurrently). Interpretation of data is therefore done together for a richer answer to the research question(s).

- *Sequential mixed methods*: this involves having more than one phase of data collection and analysis – one method follows another and the second serves to elaborate the former.

For this study, the concurrent mixed method has been employed because of the time scale for the study and the fact that the findings from one method is independent of the findings of the other and both would be integrated and then interpreted. This method is further illustrated by the figure below.

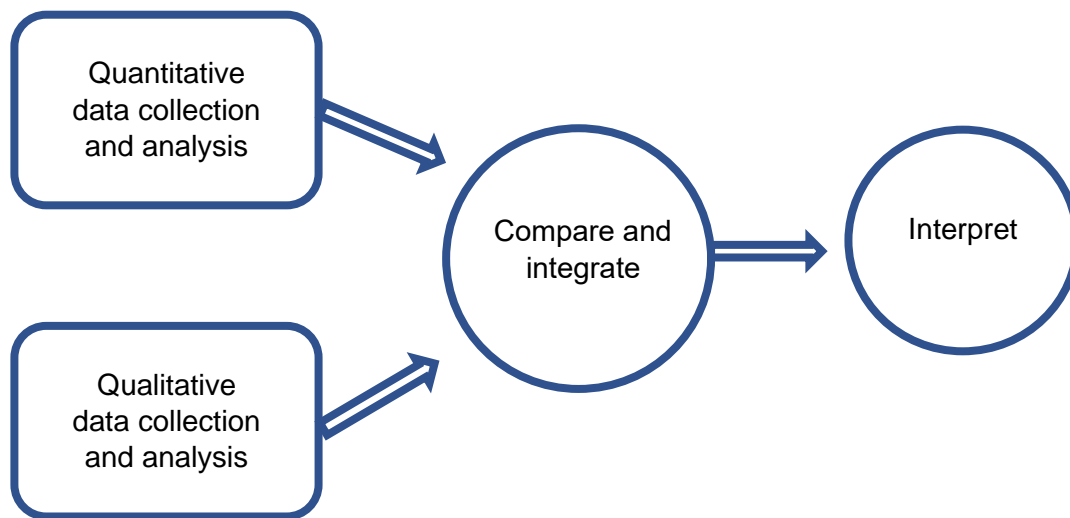


Fig 4.4 Concurrent mixed method research

As the DAG phenomenon remains a topical and important subject under investigation, literature review indicates that similar past published research on the DAG also employed the MM approach, for instance Connor *et al.* (2004), Danda (2010), Cotton *et al.* (2015) and Quyoum *et al.* (2022). Given this premise as well as for the reasons given below, the MM approach was employed in this study.

The MM approach was chosen for this study for a number of reasons. This includes the fact that it makes use of relevant quantitative and qualitative methods in data collection and data analysis (which are complementary and add breadth and scope to the research in the exploration of the social phenomenon DAG), rather than the preferences of the researcher to achieve the aim of the research and answer the research questions (Teddlie and Tashakkori 2006; Gorard 2012).

Secondly, the mixed method (MM) approach according to Cohen, Manion, and Morrison (2017) and Saunders *et al.* (2015) has ontological and epistemological roots in pragmatism.

This is very significant as a philosophical basis underpins and informs the whole research process. For pragmatists, the research is driven by the research question(s) and research context and therefore determine the approach. The MM approach recognises that the world is not exclusively quantitative or qualitative but mixed and therefore encourages looking at a phenomenon from different perspectives to better understand it. As noted earlier, this study is pragmatic and therefore employs several ways of looking at and interpreting the multiple realities in the issue of the DAG because the whole picture cannot be seen from a single quantitative/qualitative point of view.

This is in line with Creswell and Plano Clark (2011), who contend that the diverse perspectives on the phenomenon being studied offered by MM through the provision of a more complete picture also increases the credibility of the results, which may be unexpected. Furthermore, Reams and Twale (2008) argue that MM 'increase the corroboration of the data and render less biased and more accurate conclusions' by overcoming the drawbacks and biases of single or exclusionary approaches (Denscombe 2014). Denscombe (2014) also adduces that with MM, there is compensation for the strength and limitations of individual research methods and an increase in the reliability of the study through triangulation.

Despite the advantages of MM approach, it has some limitations. One of the major limitations is that it is more complex and as it requires collecting and analysing two different types of data and is therefore labour-intensive and time-consuming. Again, large volume of data are generated and analysed, and this means more resources are needed than for a single approach (Halcomb & Andrew, 2009). Another drawback is that MM requires skills in both approaches (Bowers et al., 2013) and if a researcher does not have the necessary skills, they may have to pay someone else to do it for them.

There is no right or wrong approach to conduct a research; instead, there are appropriate approaches or methods that are dependent on the research topic. So, the limitations of MM notwithstanding, the approach has been adopted as best suited for this research because of the complementarity of the quantitative and qualitative approaches in investigating the DAG in the BE in HEIs as justified by the reasons given above.

4.10.5 Strategies

The research strategies which were deployed for this study and guided by the research questions and objectives, enable data collection and analysis while reflecting the research philosophy would be survey and case study. The survey was chosen for being coherent with the abduction research approach, the exploratory nature of the study and for the quantitative aspect. This allows for the collection of quantitative data. The case study as a qualitative strategy helped to generate insights from intensive and in-depth research into the study of the

DAG in its real-life context (Saunders *et al.*, 2015). The unit of analysis for the case study was HEIs as they provided the opportunity to examine within the context a phenomenon that has received little attention. The questionnaires, semi-structured interviews and focus group discussions were therefore administered/carried out within the BE sectors of purposively selected HEIs.

4.10.6 Time horizon

Given that the study is an academic course, the research was cross-sectional as it had a time constraint.

4.10.7 Research instruments

The research instruments for data capture in order to meet the objectives of this research were varied – literature review, questionnaires, semi-structured interviews with stakeholders and focus groups discussions. While the questionnaires were chosen to provide an indication of the numerical strength of respondents' experiences and perspectives with DAG-related topics, the semi-structured interviews and focus groups discussions gave greater insights to the experiences and knowledge of the respondents with regards to the issues around the DAG. Key informants for the study were identified and recruited using purposive sampling and snowballing technique. The semi-structured basis of the focus groups and the interaction between students helped to reveal personal experiences and provide some contextual meanings to the experiences revealed. These data collection techniques were chosen to inform the research on patterns in policies, teaching methods, assessments and attainments and their impact on the DAG. The techniques also gave an understanding of respondents' experiences and an insight to any underlying reasons for the DAG thus providing an in-depth understanding of the research problem (Saunders *et al.*, 2015) which aided the development of a conceptual framework. The qualitative data generated were analysed using the NVivo software while the quantitative data were analysed using MS Excel software.

The table below shows the research instruments used to achieve each of the research objectives of the study.

Table 4.3 Research objectives in relation to the research instruments

S/N	Objectives	Instrument
1	To explore and analyse BAME student representation, progression and achievement in the BE courses in UK higher education in view of the DAG.	Questionnaires Semi-structured interviews
2	To build an understanding of the issues that face BAME students in the BE courses in their learning experiences and to identify possible factors in their degree outcomes.	Questionnaires Semi-structured interviews Focus group discussions
3	To evaluate at the institutional level, the understanding of the BAME agenda in the BE sector of HEIs and the commitment to addressing the differential outcomes.	Questionnaires Semi-structured interviews
4	To investigate possible ethnic bias in the BE sector of UK higher education and the effect of perceived institutional racism and feelings of isolation on BAME student attainment.	Questionnaires Semi-structured interviews Focus group discussions
5	To develop and proffer initiatives likely to enhance the built environment BAME students' learning and improve their progression and attainment.	Questionnaires Semi-structured interviews Focus group discussions Literature review

The research onion below summarises the research methodological process of this study.

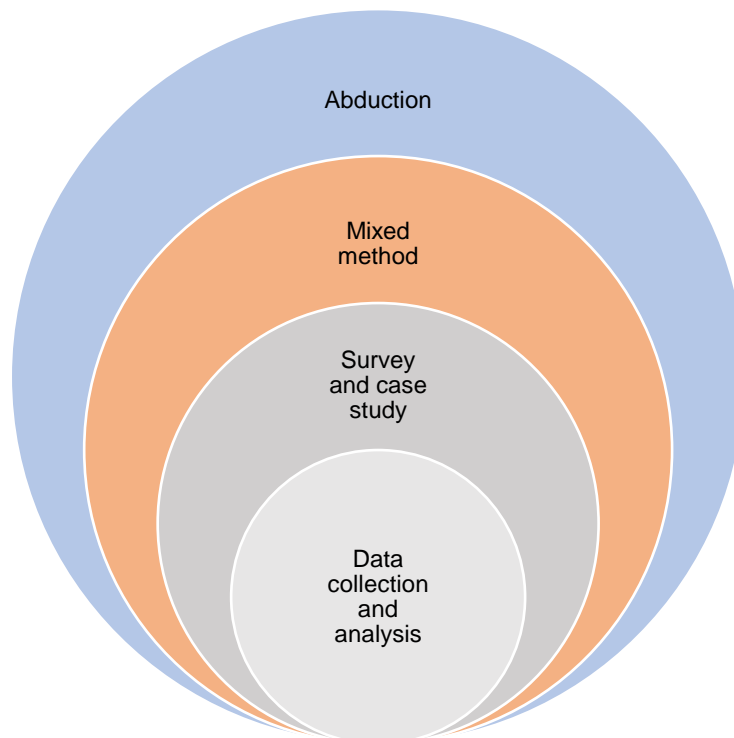


Fig 4.5 The methodological process for the study

4.11 Data collection methods

The research instruments employed for this study to meet the research objectives and in line with the methodological process were literature review, questionnaires, semi-structured interviews and focus group discussions. These instruments were used to collect quantitative and qualitative data (from purposively selected HEIs) for as stated earlier, the broad purposes of breadth and depth of understanding and corroboration.

4.11.1 Literature review

The review of relevant literature is a crucial part of any research project because it helps in building the research and links it to existing knowledge in the field. It also helps to provide an overview of areas in which more research is needed. Chapters two and three presented an extensive review of relevant literature in order to provide the theoretical base on which this research is situated. Chapter two presented an initial conceptual framework for understanding the causes of differential outcomes. It was developed using the emergent themes from the trends and trajectories in the DAG discourse to inform the development of a conceptual framework by the researcher for closing the awarding gap in the BE sector.

The information that is gathered over the course of a literature review constitutes a structured data collection process in which materials relevant to a topic of interest is gathered in a thorough manner. Consequently, the process is viewed as a data collection tool (Onwuegbuzie, Leech, and Collins 2011) and justifies its inclusion in this section of the thesis.

4.11.2 Questionnaires

One of the most popular means of collecting data for research using the quantitative approach across a variety of disciplines, including the BE (Amaratunga *et al.*, 2002), is the questionnaire. It is used for a wider range of perspectives and to explain the relationship between different variables (Creswell, 2002; Teddlie and Tashakkori, 2012). However, the effectiveness of the questionnaire depends on its ability to elicit the data required to address research questions, thus the design is crucial.

Advantages of using questionnaires for data capture include – ease of use, can be replicated, standardised responses, cost-effective way of gathering data from a large base of respondents and the fact that data can be collected within a short period. Additionally, to guarantee confidentiality and anonymity for sensitive topics like the DAG, or to ensure respondents are representative of one's target population, surveys can be very helpful.

However, data gathered using questionnaires lack depth because of the structured questions and the standardisation of responses and therefore cannot capture complexities around experiences, motivations, actions and the like (Amaratunga *et al.*, 2002), and make it impossible to follow up and explore emerging themes. Again, there is the problem of response bias, which means that respondents may not be completely honest with some participants preferring to give what they believe would be acceptable responses or they could interpret the questions incorrectly and so provide false data. The widely acknowledged low response rate of questionnaires, which can have an impact on the findings or generalisations drawn from the results, is another drawback of questionnaires.

The advantages mentioned above and the limitations that were mitigated by the additional use of the qualitative approach, clear questionnaire design, and questionnaire piloting in this study justify the use of questionnaires to measure trends, conduct comparisons, and reach unbiased conclusions.

This study therefore, in order to capture the different dimensions of the DAG (across sectional views) and its impact on BAME students through the stages of retention, progression and attainment within HE, and progression after HE, set out to conduct five different questionnaire surveys for:

- BE students irrespective of their ethnicity
- Academics within the BE in HEIs
- Professional bodies within the BE sector
- BAME alumni of BE courses
- Organisations within the BE industry

These questionnaires were first piloted to identify any problems with the structure, to test the comprehensibility and to be sure that appropriate data would be collected. As a result of the responses and feedback, the researcher refined portions of the questionnaires that had problems.

Since the researcher could not be provided with the email addresses for the recruitment of participants for data protection reasons, purposively selected HEIs agreed to assist with the administration of the questionnaires through a link to the online survey generated using JISC Online Survey (formerly BOS) which was given to them by the researcher. A more detailed discussion on the questionnaires has been done in chapter five.

The ultra-low responses from some categories listed above made it impossible to continue with those groups. For the BAME alumni survey, most HEIs contacted declined to reach out to their BAME alumni probably due to the sensitive nature of the study. A total of 647 possible BAME alumni respondents were however contacted by their institutions but only 6 responses were received. The BE organisations were no different in this regard. Only two of the 100 organisations in the sector that the researcher contacted responded. Since one of the issues with the DAG for BAMEs is employability in the BE industry, the researcher looked for other ways to connect with the sector. A contact was made who had connections to some organisations in the sector, and the contact agreed to share the link with 22 organisations. This was done but there was only one response. These two groups were dropped due to their extremely low response rates since they will have no statistically significant impact.

4.11.2.1 Questionnaire for students

The voluntary student online questionnaire was designed for BE students irrespective of their ethnicity and this enabled a comparison between the perspectives of the BAME students and their white counterparts. It looked at students' understanding of the DAG and their experiences at university. Again, because of data protection regulations the researcher had no access to the contact details of the students for administration of the online questionnaire. So, the purposively selected HEIs helped to send the link to the questionnaire to their students.

4.11.2.2 Questionnaire for academics

The academic questionnaire was similar to the student questionnaire but varied in areas pertinent to academia. There was a categorisation of the academics into senior management and lecturers in order to understand the DAG and its impact as seen from the perspectives of the two groups and see if there is any variation. Once again, the administration of the online questionnaire was through a link provided by the researcher to the HEIs to be emailed for the recruitment participants.

4.11.2.3 Questionnaire for professional bodies

The third questionnaire was conducted with key professional bodies that influence BE courses in HE, as they understand the value of HE for aspiring BE professionals especially given the underrepresentation of BAMEs across the sector which is not representative of the UK society. Since they would be familiar with their educational policies and are in a position to give the necessary information, the educational departments or similar set ups at these organisations were invited to complete the questionnaire on behalf of their organisations. Clearly, that is a small population size. This notwithstanding, some organisations did not get back to the researcher despite several attempts to include them in the study.

4.11.3 Semi-structured interviews

The use of interviews in qualitative and MM research is well established including in the BE (Amaratunga et al., 2002). According to Saunders et al. (2015), an interview is a purposeful conversation between two or more people in which rapport is built and the interviewer asks clear, unambiguous questions that elicit responses from the interviewee. Kvale (1996) goes further to argue that a qualitative research interview affords the researcher the opportunity of seeing the phenomenon under investigation from the perspective of the respondents. This is consistent with Sewell (2009) who posits that interviews shed light on the meaning of respondents' experiences and reveals their lived world. However, an interview needs to be conducted in a manner that is compatible with one's research question(s), objectives, and research methodology in order to achieve the research aim.

Like many authors, Saunders *et al.* (2015) categorise interviews into structured, semi-structured and unstructured or in-depth interviews. While structured interviews employ standardised and predetermined questions, semi-structured interviews utilise key questions but because they are open-ended, they have the flexibility of probing respondents' answers further to obtain more clarity and reasons for answers. Unstructured interviews are informal. The nature of structured interviews lends them to the collection of quantifiable data and quantitative analysis of data while the other two explore the research topic in depth and yield qualitative data that are analysed qualitatively. Semi-structured interviews were adopted for this study because they are well suited for investigating complex phenomena like the DAG and allow for probing and spontaneous questions which deepen understanding and clarify respondents' answers to questions.

One of the advantages of semi-structured interviews is that they do not follow a strict format and allow open-ended responses that generate more in-depth information, and these can be probed even further. One can also prepare questions before hand to guide the interviewer and interviewee. They also afford the interviewee the opportunity to ask questions of the

interviewer and so encourages a two-way communication and rapport. The limitations of the semi-structured interview include that it is time and resources intensive and will require interviewing skills to elicit desired information. Semi-structured interviews are also a challenge to analyse and can be prone to response bias.

Despite the limitations of semi-structured interviews, the flexibility they afford lends them naturally to a study that explores the complex and dynamic topic of the DAG in the BE which is under researched. By guaranteeing anonymized data, including the anonymity of respondents' HEIs, the possibility of interviewee or response bias is reduced, and this in turn boosts respondents' confidence in the researcher. A more detailed discussion on the interviews has been done in chapter five.

4.10.3.1 Sets of interviews

For the collection of qualitative data, semi-structured interviews were one type of data collection instrument employed. There were two sets of interviews conducted to get a deeper understanding of the DAG in the BE. One set of interviews involved the heads of BE divisions/departments or faculties or their nominated representative from purposively selected HEIs to get the perspectives of institutional management on issues around the DAG. The researcher sought to explore BAME student representation, progression, and attainment in the BE courses and to evaluate the BE's institutional understanding of the BAME agenda and their commitment to addressing differential outcomes. Additionally, the researcher was interested in looking into the probability of ethnic bias in the BE sector, as well as how perceived institutional racism and isolation affect BAME students' academic performance. For the second set of interviews, a select group of experts in the DAG discourse including someone from beyond the BE, was purposively chosen. By conducting two sets of interviews, it was anticipated that it would help to have a more comprehensive understanding of the DAG in the BE and a wider range of knowledge from which to develop a conceptual framework for closing the gap.

4.11.4 Focus group discussions

A focus group is described by Carson *et al.* (2001) as an interview where the topic is specified defined with a focus on facilitating and documenting interactive discussion between participants. The focus group (FG) recently rediscovered by social scientists has become a very innovative research method (Acocella, 2012). Bertrand *et al.* (1992) indicate that some researchers employ the FG to explore little-known phenomena as it is considered capable of providing information in a timely manner and at a reasonable cost. The group is specifically chosen with a predetermined demographics to shed light on a topic of interest and its goal is

not to have a consensus but to understand perceptions and the lived experiences of the participants.

Focus groups have several advantages such as the ability to generate rich and in-depth data that can reveal new insights and can also capture the dynamics and interactions of a group including body language and emotions. Additionally, they are flexible, time and cost-effective. Focus groups do, however, have significant drawbacks, including the time required to conduct them and the possibility of interviewer bias or the influence of group dynamics. In addition, recruiting participants can be challenging, and focus groups can generate a lot of complex data that need careful interpretation and analysis.

These limitations notwithstanding, the study employed focus groups discussions to gather rich and diverse insights into the DAG in the BE from BAME students which may not be possible through another method in such a timely and cost-effective manner. Additionally, FG makes it possible to watch participants' interactions and how they affect each other's views. FG for this research involved just the BAME students as the researcher wanted to understand the issues that face BAME students in the BE courses in their learning experiences and to identify possible factors in their degree outcomes. This facilitated the development of a framework for the closing of the DAG in the BE sector. A more detailed discussion on the focus groups has been done in chapter five.

4.11.5 Sampling

Since it is sometimes not possible to gather data from an entire population in a research, sampling techniques are used to get representative members of populations of interest to be involved in a study (Teddlie and Tashakkori, 2006; Ritchie *et al*, 2013). Sampling techniques are also a time and cost-effective measure. They are broadly divided into two groups – probability and non-probability techniques. When using probability sampling, all instances typically have an equal chance of being chosen from the target population and studies that use survey and experiment strategies from which statistical inferences can be made about the population generally use probability techniques. Probability techniques could be simple, systematic, stratified, cluster or multi-stage (Saunders *et al.*, 2015). Non-probability sampling on the other hand does not provide the probability of each instance being chosen from the target population, and no inferences about the population can be drawn from it although one can generalise about the population. Consequently, most non-probability techniques have subjective elements. Non-probability techniques according to Saunders *et al.* (2015) can be quota, purposive, volunteer or haphazard.

Non-probability sampling techniques were employed for this study for several reasons. The study's exploratory nature, pragmatic stance and chosen research methodology lend it to non-

probability techniques in order to answer the research questions. Additionally, the sensitive nature of the subject area and the desired rich insights and understanding of the DAG required from multiple perspectives cannot be provided by probability sampling.

As stated earlier in section 1.6, the unit of analysis are HEIs so the study set out to use five HEIs as case studies from which the sample population would be drawn for each of the data collection methods. However, this had to be abandoned after several of the HEIs who had initially agreed to participate were unwilling to provide some information even though data would be completely anonymised. The non-probability sampling techniques used were purposive sampling and snowballing, with snowballing being categorised as a sort of volunteer non-probability sampling technique by Saunders *et al.* (2015).

4.10.5.1 Sampling strategy for questionnaires

Many HEIs offering BE courses were purposively selected as the researcher sent emails to departments/schools across the country inviting them to partake in the study. The responses received were quite low. While some were enthusiastic, some did not respond despite several reminders, and this affected the full representation of all the regions within the UK. Furthermore, as cases were hard to reach, the researcher applied snowballing to increase the number of student and academic participants from HEIs.

The HEIs were given the link to the student's questionnaire to send to their students and over 600 students were invited. As is typical with surveys, there was a very low response rate. A total number of 70 students (11.67%) were recruited and these were home or UK domiciled students cutting across different ethnicities. They were purposively selected because most of the data from government organisations generally utilised for research into the DAG are only available for such students. The recruitment of students from different ethnic backgrounds was important in order to evaluate and check for any correlation between the viewpoints and experiences of the BAME students and their white counterparts.

Over 200 academics were invited to participate through emails sent by the HEIs on behalf of researcher. After several email reminders, 30 (15%) were recruited from across HEIs also covering different ethnic backgrounds. Eight of them were part of senior management while twenty-two were lecturers. The rationale behind using these two categories was to examine how academics interpret and respond to DAG-related issues depending on their position in their university.

A third questionnaire was administered to BE professional bodies and the selection was subjectively done by the researcher to represent the main professional bodies in the sector. Recruitment emails were sent to the educational departments or similar set ups at these organisations, and they were invited to complete the questionnaire on behalf of their

organisations. Regrettably, a few of key professional bodies did not participate despite many emails and phone calls to them. A total number of twenty-six respondents was received on behalf of 7 professional bodies.

4.10.5.2 Sampling strategy for semi-structured interviews

Non-probability sampling is not governed by rules like probability sampling is, but there should be a logical connection between the sampling technique used and the objective(s) of the study especially when using semi-structured interviews (Saunders *et al.* 2015). Bryman (2012) suggests the continuation of data collection through interviews until data saturation is reached meaning no new information is obtained.

There were two sets of semi-structured interviews conducted for the study as indicated earlier in section 4.10.3.1. Participants for one set of interviews were the heads of BE divisions/departments or faculties or their nominated representatives from purposively selected HEIs who could give relevant information that address the research questions. Creswell (2013) and Saunders *et al.* (2015) suggest that between 5 and 30 interviews be used for data collection. The researcher sent emails to 32 members of the Council of the Heads of the Built Environment (CHOBE) spread across the UK in an attempt to recruit participants, but only 13 of them responded. Reminder emails were sent several times but there was no response from some. The researcher conducted 13 interviews using Microsoft Teams which was the mutually convenient platform.

For the second set of interviews, a small number of experts in the DAG discourse were selected, one of whom was not affiliated with the BE. The researcher chose 3 participants whose information-rich contributions would enable her to answer her research questions based on her subjective judgement (Bryman, 2012; Sbaraini *et al.* 2011).

4.10.5.3 Sampling strategy for focus group discussions

In order to understand the challenges faced by BAME students in their learning experiences their perceptions of the DAG, and to identify possible factors that affect their degree outcomes, participants recruited for the focus group discussions were specifically BE BAME students from several HEIs. Purposive sampling followed by snowballing were the techniques used for their recruitment. A total number of 16 students for 4 focus group discussions were recruited and this met the requirements (4-12) for a 'homogenous' population for a non-probability sample size according to Saunders *et al.* (2015).

The fact that only BAME students were required for the discussions mitigated bias, a common drawback with snowballing that produces a homogenous sample. Even though BAME background students are not homogenous as stated in chapter two of this thesis, they were

exclusively the target population for the focus group discussions in order to address the second objective of the study.

4.12 Data analysis processes

In accordance with the objectives of the study and the adopted research methodology, data gathered were analysed quantitatively and qualitatively referencing the initial conceptual framework. Using MS Excel, quantitative data from the questionnaires were analysed, and the results interpreted to understand the rationale for the key findings. Qualitative data from the semi-structured interviews and focus group discussions were analysed with NVivo 14 to find recurring themes and patterns in the responses.

4.12.1 Questionnaires

The JISC online survey, which was formerly known as Bristol Online Survey (BOS), was utilised to create the three questionnaires for this study. To ensure compatibility with various analysis software, JISC exports data in a variety of forms. For this study, the data was exported in Excel format, and this made the analysis more straightforward. Excel was chosen for the analysis because it is widely used for data analysis and due to the ease with which one can explore, analyse, and visualise data using it.

Quantitative data can be classified into categorical and numerical data and while categorical data do not have numerical values but are categorised according to their characteristics, quantities of numerical data can be measured as (Saunders *et al.*, 2015). The questionnaires used for this study were designed to capture categorical data to achieve the objectives of the research, therefore the focus is on this type of data. Two levels of measurement are used for categorical data - nominal and ordinal. Whereas nominal data can only be categorised and cannot be ordered in a meaningful way, ordinal data can be categorised and ranked in a meaningful way. Furthermore, because the study used categorical data which are not normally distributed, there was no need to carry out any test for normality.

The type of data generated determines the type of statistical tests that can be performed on the data for statistical significance and there are two main groups of statistical tests - parametric and non-parametric (Saunders *et al.*, 2015). Parametric tests are performed on numeric data based on a fixed set of parameters and information about the distribution of the population from which the sample is taken is known. On the contrary, non-parametric tests employ categorical data and are not based on fixed parameters and there is no information about the distribution of the population (Bryman & Bell 2011; Saunders *et al.*, 2015). Non-parametric tests were conducted for this study in consistence with the categorical data collected.

The non-parametric tests carried out were descriptive and inferential statistical analysis. Using descriptive statistics which focus on characteristics of datasets, the researcher provided summaries of datasets in a useful way for insight using visualizations like tables, graphs and charts. Although inferential statistics are used to make generalizations and predictions about a population based on the available data from a smaller sample, they were used in this study to compare groups, and estimate relationships between variables because the study utilised non-probability sampling and the data was non-parametric. Additionally, because they complement each other, descriptive and inferential statistics have been used to examine data more thoroughly for broader understanding, to provide answers to complex questions, and draw more reliable conclusions.

The Spearman's rank correlation which is the non-parametric counterpart of Pearson's correlation and uses ranked data was used for inferences in some questions to examine the relationship between two variables without hypothesizing a cause-and-effect relationship. Spearman's Rank correlation coefficient (ρ or r_s) is used to measure the strength of a monotonic relationship between paired data. To rule out any association being the result of chance, the Spearman's Rank significance table is used to examine the statistical significance of the resultant coefficient at the confidence interval level of <0.05 or 0.01 . The <0.05 confidence interval level was adopted for this study. It indicates that there is at least 95% assurance that the relationship between two variables, as indicated by the data, could not have occurred by random factors alone and that there is only a 5% or less probability of a relationship arising by chance alone. A relationship is typically not regarded as statistically significant if the probability is greater than 0.05.

The values of Spearman's coefficients (r_s) range from -1 to +1 and shows the strength and direction of a relationship between variables. The sign before the coefficient indicates whether the relationship is negative or positive. A negative correlation is any r_s value between -1 and 0 (with a minus value). This means that, as one value increases, the other value decreases. A value of -1 shows a perfect negative correlation. The nearer a negative value is to 0, the weaker the negative correlation while values closer to -1 indicate strong negative correlation (see Fig 5.6). Positive correlations are shown by r_s values between +1 and 0 (values more than 0). This means that as one value increases the other value increases or as one value decreases the other value decreases. The closer positive r_s is to 0, the weaker the positive relationship between the ranks and the closer the value is to 1, the stronger the positive relationship. A value of 1 shows a perfect positive correlation while an r_s value of 0 shows that the variables are independent and there is no relationship.



Fig 4.6 Values of the correlation coefficient (Source: Saunders et al., 2015)

4.12.2 Semi-structured interviews and focus group discussions

Qualitative data analysis is a process of gathering, organising and interpreting qualitative data in order to understand ideas, perspectives, and experiences interconnected with a phenomenon under investigation. This kind of analysis, which might be interpretative or exploratory, aims to gain a thorough understanding of a topic or phenomenon. A major approach to analysing qualitative data is thematic analysis which Saunders et al. (2015) posit are often being thought of as a generic approach as it is found in particularised ways in other qualitative approaches. This is consistent with Braun and Clarke (2006) who referred to thematic analysis as a 'foundational method for qualitative analysis.'

While there are no specific rules for the analysis of qualitative data (Bryman and Bell, 2011), thematic analysis offers a flexible, orderly, and logical way to analyse such data (Braun and Clarke 2006). Its flexibility comes from its development as an independent analytical technique or process, rather than as a component of a theoretically supported methodological approach (Saunders et al., 2015). Perhaps this is why it is the most widely used approach for analysing qualitative data. For this study, thematic analysis was deployed for analysing data from the semi-structured interviews and focus group discussions because of its flexibility, ease of use and widespread usage and NVivo 12 software was used for the analysis.

According to Saunders et al. (2015), thematic analysis involves assigning codes to qualitative data in order to identify themes or patterns that are present across an examined data set and are pertinent to one's research question(s) resulting in detailed descriptions, explanations and theorising. This study will draw on Braun and Clarke's (2006) 6-step framework which has arguably become the most utilised framework to analyse qualitative data generated from semi-structured interviews and focus group discussions. The step-by-step guide or framework is as explained in the table below.

Table 4.4 Braun and Clarke's framework for thematic analysis

1. Get familiar with the data	Reading and reading the transcripts and write down notes
2. Generate initial codes	Coding interesting features in a systematic way
3. Search for themes	Collation of codes into potential themes
4. Review themes	Checking to see if the themes work in relation to the codes
5. Define and name themes	Refining themes and generating names for each theme
6. Produce the report	Writing a report of the findings enriched with quotations from the transcripts.

4.13 Validity of the study

Research validity is important in any study and refers to how research data, analysis and interpretation measures the object of study and establishes authenticity (Creswell, 2013; Saunders *et al.*, 2015). In other words, validity provides evidence of the quality of the research. This study adopted triangulation as a validation strategy, and this is consistent with its pragmatist stance and the MM approach. Two techniques of triangulation were employed: method triangulation and data triangulation. Method triangulation refers to the use of more than one method (in this study MM) while data triangulation refers to the process of combining data from different sources to see if they corroborate one another.

4.13.1 Triangulation

Triangulation involves using two or more independent sources of data and methods of data collection in a study to confirm that data actually say what they appear to say (Saunders *et al.*, 2015). Additionally, Denzin (2012) indicates that using triangulation in research adds depth and richness, and presents multiple findings regarding a phenomenon (Creswell, 2013). Triangulation also reduces the inherent biases associated with single-approach studies.

For this research, the quantitative and qualitative approaches were carried out concurrently and then the results were triangulated together with the findings from the literature review.

4.14 Reliability of the study

Reliability is a very important aspect of research and refers to how consistent the outcomes of research are and how replicable the study is (Saunders *et al.*, 2015). Reliability does not, however, automatically imply high-quality research, and as it is impossible to measure reliability precisely, it is usually estimated. One of the ways reliability can be measured is based on internal consistency (Yu, 2005) and an internal consistency reliability test examines the correlation between different items of the test. Cronbach's Alpha coefficient test is the most used to test reliability and the results range between 0 and 1. The closer to 1 the value of

Cronbach's Alpha coefficient is, the higher the estimate of the reliability. A coefficient greater than 0.7 is deemed good.

Cronbach's alpha coefficient was used to assess the reliability of the study measures for each of the three questionnaires. The scales employed in the study were internally consistent because all values were higher than the recommended threshold of 0.7 (see Tables 4.5, 4.6 and 4.7).

Table 4.5 Cronbach's alpha for questionnaire for students

Variable	Cronbach's alpha	Items
Factors that influenced choice of course	0.795	7
Reasons for DAG	0.908	10
Ethnic representation	0.900	5
Factors impacting study	0.900	13

Table 4.6 Cronbach's alpha for questionnaire for academics

Variable	Cronbach's alpha	items
Reasons for DAG	0.865	12
Important interventions to close the DAG	0.877	12
Statements about university in relation to DAG	0.793	20
BAMEs in the BE industry	0.711	11

Table 4.7 Cronbach's alpha or professional bodies

Variable	Cronbach's alpha	Items
Reasons for the DAG	0.754	14
BAMEs and the professional bodies	0.960	9
BAME underrepresentation in the BE industry	0.834	13

4.15 Ethical considerations

Ethical considerations are a crucial part of any research and approval needs to be obtained from the necessary authorities before the collection of any data can be done. The main ethical issues considered before carrying out this research were the informed consent of the respondents, their anonymity and confidentiality particularly because of the sensitive data that is required.

For the questionnaires, participants' consent was obtained through recruitment emails and the introductory pages also required their consent. Participants for the semi-structured interviews

were emailed the information sheets and consent forms to ensure voluntary participation. Focus group discussants also had recruitment emails with details about consent being required. Participants were debriefed to mitigate any issues that may arise from participating in the study as the study was judged to be medium risk. Confidentiality and anonymity were strictly maintained for all participants including those who would not have objected to being identified. Approval was gained from the university's ethics board before the commencement of data collection. A copy of the approval letter is included in the appendix.

4.16 Chapter summary

This fourth chapter of the thesis presented the methodological process for the study which adopted the research onion of Saunders *et al.* as framework. The study is underpinned by a pragmatist stance which is reflected in the approach, design, strategy, methodological choice, choice of research instruments for data collection and the analysis of data. These were justified in the chapter. The pragmatist stance was buttressed by the fact that the research involved many ways of interpreting the multiple realities in the issue of the DAG and the whole picture cannot be seen from a single point of view.

Abduction which is an approach to theoretical development combining deduction and induction was adopted and the study was conducted using mixed methods to provide depth and breadth and better understanding of the DAG in the BE. The research strategies which enabled data collection and analysis while reflecting the research philosophy were survey and case study. Participants for the study were purposively selected and in addition, snowballing was deployed. Additionally, the study's validity and reliability were established and ethical considerations described.

The following chapter presents the findings from the questionnaires administered to sample students and academics in HEIs, BE professional bodies as well as the interviews conducted with senior management of BE sectors in HE and select experts in the discourse around the DAG. It also includes findings from focus group discussions with BAME students from the BE sector in HEIs.

5. Data presentation and analysis

5.1 Introduction to chapter five

Raw data without being purposefully presented and analysed give little meaning and so are not very useful to anyone. In this chapter, primary data gathered from the multiple case study through questionnaires are presented and analysed descriptively and inferentially. Additionally, the chapter presents the results and thematic analyses of the interviews and focus group discussions. Various themes based on the initial conceptual framework will be presented from the qualitative and quantitative data to provide a detailed exploration of the DAG. Furthermore, data from the MM sources will be triangulated so that findings can be corroborated to have a better holistic and nuanced understanding of the DAG and to strengthen the conclusions. Overall, the analysis will highlight issues pertinent to the development of a framework for the closure of the DAG in the BE sector.

5.2 Quantitative data analysis

Following a thorough examination of the literature, a conceptual framework for this study was developed in chapter two that considered recurring factors that influence degree outcomes. These recurring factors were:

- Leadership and institutional culture
- Belonging and student experience
- Mentoring/role models
- Curriculum
- Teaching and assessment methods
- Racism and biases

This framework served as the foundation for the collection of data and the direction of their analyses using an abduction technique. The design of the questionnaires was such that a preceding question had to be answered before a respondent could progress to the next one to avoid having missing data and thus reducing errors.

5.2.1 Questionnaires outlines

As was previously mentioned in chapter four, three questionnaires were utilised to gather quantitative data for this study, and they are covered in more detail in the sections that follow. A copy of each questionnaire is provided in the appendix.

5.2.1.1 Questionnaire for students

The researcher determined that first-year students at the time the data was collected had not amassed enough experience of their university and HE to effectively participate in the survey,

thus this questionnaire was created for students in their second and subsequent years. The questionnaire was divided into three sections, and these are briefly described below.

Section A: Personal information. This section provided an anonymous profile of the students. The information gathered included the students' gender, age, ethnicity, course of study and mode of study, year group, university location, factors that influenced their course of study, entry qualification, and expected class of degree. The resultant demographics data provided context for the study and allowed for comparisons between the BAME students and their white peers.

Section B: The awarding gap. A brief explanation of the gap was given at the beginning of the section for anyone who may not be very familiar with the phenomenon. This section explored the students' knowledge of the DAG and its impact on their experiences and studies. It included a Likert scale question on factors that could be responsible for the DAG gap. Additionally, it sought to find out what their universities were doing about the gap and if the students felt the interventions were adequate. Five major interventions known to have been used to address the gap were presented and the students asked to rank them according to how effective they thought these interventions were. It is intended that by analysing the data in this section, it would be possible to determine whether BAME students and their white peers have the same or different ideas about what causes the DAG, how it affects students, and how well-known interventions work.

Section C: Student's experience: Section C focused on the experiences of the respondents at their HEI including the representation of their ethnicity among students, course representatives, staff (academic and non-academic) and Students' Union officials. The section also included questions about factors bordering on inclusivity, learning environment and racial biases or racism at their HEI and how such is dealt with. The responses to these questions would help in addressing objectives 1, 2, 4 and 5 (stated in chapters 1 and 4) of the research. The questionnaire ended with a note for any student who would like to participate in a focus group discussion to give their email address and a debrief.

5.2.1.2 Questionnaire for academics

The questionnaire designed for academics was divided into four sections and the description of the sections is given below.

Section A: Personal information. Like the questionnaire for students, this section sought demographic data for participating academics including gender, ethnicity, department within the BE, role at the HEI, geographical location of the institution. The collected data provided context for the study and allowed for comparisons between two levels of the academia – senior management and lecturers. This was instrumental in seeing if the perspectives of senior

management differed or aligned with that of the lecturers who had more direct dealings with the students. Though not the primary focus of the investigation, responses of the academics were compared in some areas with their ethnic backgrounds.

Section B: The Awarding Gap. A brief explanation of the gap was given at the beginning of the section for anyone who may not be very familiar with the phenomenon. This section explored the academic respondents' knowledge of the DAG and the factors that could be responsible for it, and the initiatives taken by them in their areas/subjects as well as by their HEI to close the gap. It also questioned how effective they perceive these initiatives have been. Additionally, it sought to find out how the academics perceived the effectiveness of five major interventions known to have been used to address the gap were. It is intended that by analysing the data in this section, it would be possible to determine whether the positions academics hold in their institutions affect their understanding of the DAG, its causes and how the gap can be closed.

Section C: Academics Experience. This third part of the questionnaire focused on the experiences of the respondents at their HEI including the representation of their ethnicity among students and staff (academic and non-academic) and inclusivity, learning environment and racial biases or racism at their HEI and how such is dealt with. The responses to these questions would help in addressing objectives 1, 2, 4 and 5 (stated in chapters 1 and 4) of the research.

Section D: BAMEs in the BE industry. This final part of the questionnaire sought to establish the awareness among the academics of the underrepresentation of BAMEs in the BE industry and the barriers they face in the industry. This was necessary considering that as revealed by the review of literature, the representation of BAMEs in the industry is not consistent with the number of graduates from the sector and is also proportionally unrepresentative of the BAME population in UK society.

5.2.1.3 Questionnaire for professional bodies

Most of the responses to this questionnaire were given by the respondents (from the educational departments or similar set ups at these organisations) on behalf of their organisations and not on an individual basis. As a result, they provided information in accordance with the viewpoint of the professional bodies. This questionnaire consisted of three sections which are explained below.

Section A: Background information. This sought to get general background information about the organisation and did not divulge their identity in line with anonymity that was promised. Here the questionnaire solicited information about the respondent's role in their organisation, the sector of the BE industry their organisation represents, percentage of BAMEs members

and the importance of degree classification in the admission of members into their professional body. Information about the sectors of the BE the organisations represented were replaced with a code in the analysis to maintain confidentiality and anonymity. The data provided helped to give context to the study and aided the comparison of the perspectives of the seven professional bodies that took part in the study.

Section B: The Awarding Gap. As with previous questionnaires discussed above, a brief explanation of the gap was given at the beginning of the section for anyone who may not be very familiar with the phenomenon. Respondents were requested to state how knowledgeable they were of the DAG and factors responsible for it. Additionally, the section sought the view of the professional bodies on what HEIs should be doing to make better progress in closing the gap, the role of the DAG closure in the accreditation of BE courses in HE and how the organisations can assist HEIs to close the gap. It is intended that analysing this section's data will help to determine if there are any differences in the viewpoints of the different professional bodies regarding the DAG and how to address it in the BE.

Section C: BAMEs and the Professional Bodies. This final section focused on investigating BAME membership of the professional bodies, barriers that BAMEs face that may account for their underrepresentation in the BE industry, interventions by their organisations to increase BAME representation in their organisations and what good a wider participation from BAMEs will bring to professional bodies.

5.2.2 Analysis of the questionnaires

Saunders *et al.* (2015) state that in analysing data, there are two classes of significant tests that can be carried out and these are parametric and non-parametric tests. These tests have been discussed in chapter four and as indicated in that chapter; data collected through the quantitative approach would be analysed using non-parametric tests. This is because the collected data in consistence with categorical data (Saunders *et al.*, 2015) did not have a normal distribution and the sampling techniques were not random but purposive sampling and snowballing. There will be descriptive analyses that describe variables and their parts, look at distributions, trends, proportions, and percentages and compare variables. Inferential statistics will compare variables and correlation between different groups of participants.

5.2.2.1 Questionnaire for students

The study consisted of 70 participants who were students from the BE sector as earlier stated in the methodology chapter.

a) *Participants' profiles:* The first section presents descriptive statistics of the participants' profile - gender, age, ethnicity, course of study and mode of study, year group, university

location, factors that influenced their course of study, entry qualification, and expected class of degree.

(i) *Gender*: The gender distribution for the students provided four options of male, female, prefer not to say (PNTS) and other. However, participants responded to only male and female. Among the participants, 63% were male while 37% were female.

(ii) *Age and ethnicity*: In terms of age, 72.9% were aged between 18-25 years, while 11.4% were between 26-30 years and 10% fell within the range of 31-35 years. Lastly, 5.7% were aged 36 and above. For ethnicity, 42.9% identified as BAME while 57.1% identified themselves as white. Age was further cross tabulated with ethnicity for comparison, and this is presented in Table 5.1. The largest proportion of participants fell in the 18-25 years category (72.9%), followed by 26-30 years (11.4%), 31-35 years (10%) and lastly, 36 and above (5.7%).

Table 5.1 Cross tabulation of students by age and ethnicity

Age range	BAME	White	Total	%
18-25	25	26	51	72.9
26-30	2	6	8	11.4
31-35	2	5	7	10
36 and above	1	3	4	5.7
Total	30	40	70	100

Comparing the responses according to ethnicity, there is very little difference between BAMEs (25) and whites (26) for the age range with the largest percentage of respondents (18-25). However, the variation between ethnicities is a little higher for the age range 26-30 and 31-25 where the higher proportion is among white students. Similarly, for ages 36 and above, there were more white respondents. Overall, white respondents were higher across all ages than BAMEs.

(iii) *Geographical location of HEI*: Findings of the study show that the majority (61.4%) of the respondents' universities were in the southern part of England while 38.6% stated that their university was in the northern part. As noted in the research methodology chapter, the low response rate from HEIs about participating in the study affected the full representation of all the regions in the UK.

Table 5.2 Geographical location of HEI of respondents

Geographical location	Total	%
North	27	38.6
South	43	61.4
Total	70	100

(iv) *Course of study*: For the distribution of responses according to students' courses of study (including whether the students were full time or part time), findings show (Table 5.3) that Construction Management had the highest percentage (27.1%) while the lowest was for Quantity Surveying (1.4%).

Table 5.3 Distribution of respondents according to course of study

Course of study	Full time	Part time	Total	%
Architecture	8	2	10	14.3
Building Services Engineering	2	20	22	31.4
Construction Management	8	11	19	27.1
Quantity Surveying	1	0	1	1.4
Building Surveying	0	2	2	2.9
Civil Engineering	7	6	13	18.6
Architectural Engineering	3	0	3	4.3
Total	29	41	70	100

Furthermore, a cross tabulation of the distribution of students according to course of study and gender shows that Architecture had an equal number of respondents (5) for each gender, while Architectural Technology had more female than male respondents (2:1). Building Services Engineering had the largest number of male respondents (18), few women (4) as well highest number of total respondents (22). For Building Surveying, there was no female respondent and 2 male respondents. Civil Engineering had almost same number of male and female respondents (7:6). The result shows also that Construction Management had the second largest number of respondents (19) and the disparity in gender was very minimal (10:9). Quantity Surveying had only one respondent who was male.

Table 5.4 Cross tabulation of students by course of study and gender

Department	Male	Female	PNTS	Total	%
Architecture	5	5	0	10	14.3
Architectural Technology	1	2	0	3	4.3
Building Services Engineering	18	4	0	22	31.4
Building Surveying	2	0	0	2	2.9
Civil Engineering	7	6	0	13	18.6
Construction Management	10	9	0	19	27.1
Quantity Surveying	1	0	0	1	1.4
Total	44	26	0	70	100
Percentage	62.9	37.1	0	100	

The next descriptive statistics show a comparison of respondents according to course of study and ethnicity (Fig. 5.1). From the bar chart, Architecture and Construction Management had more BAME students than whites while Building Services Engineering and Civil Engineering had more white students than BAMEs. Three courses had respondents from just one category of ethnic backgrounds. Architectural Technology and Quantity Surveying had respondents from BAME backgrounds while Building Surveying had only white respondents.

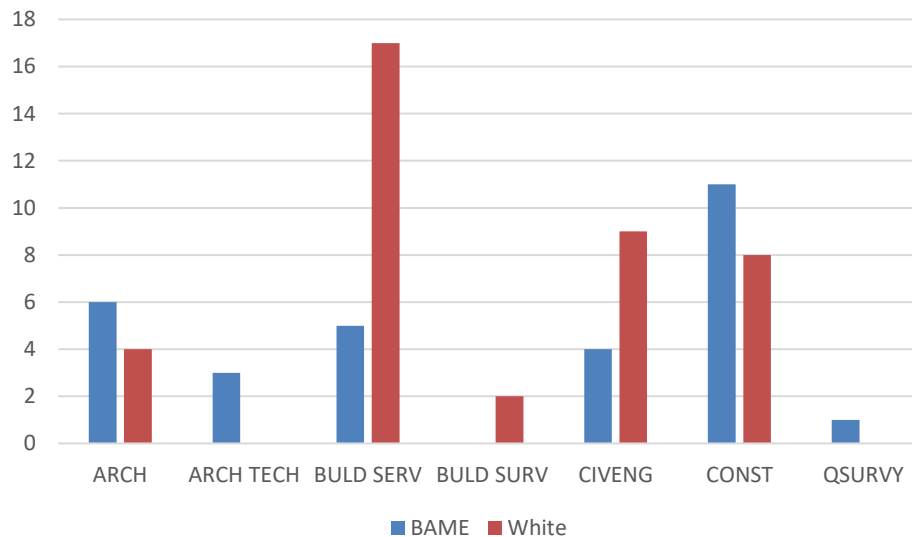


Fig 5.1 Comparison of distribution of respondents according to course of study and ethnicity

(v) *Mode of study*: The statistics as illustrated by the bar chart below (Fig 5.2) show that overall, respondents were more of part time students than full time students. The largest proportion of part time students were in Building Services Engineering followed by Construction Management property and Surveying. Architecture had the largest proportion of full-time students and in addition, all respondents for Architectural Technology and Quantity Surveying were full time students. Building Surveying has all respondents being part time students. Having done a comparison of respondents' courses of study and their ethnicity above (Fig 5.1), the mode of study was not further broken down by ethnicity for comparison.

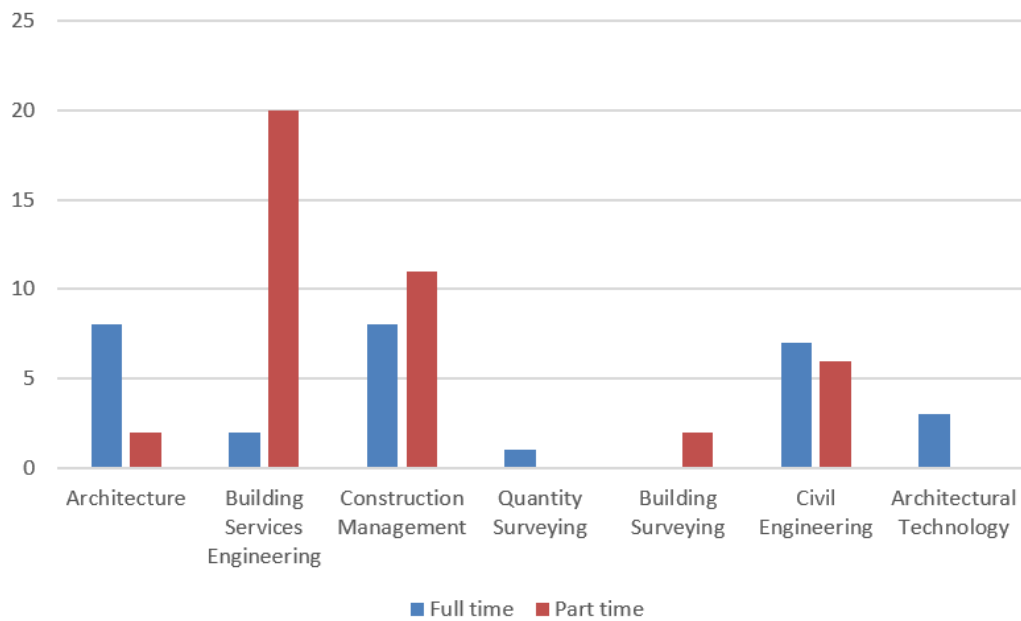


Fig 5.2 Distribution of respondents according to mode of study

(vi) *Year of study:* The responses for year of study show that 38.6% stated that they were in their second year while 44.3% were in their third year and lastly 17.1% were in their 4(+) year. As was previously mentioned, first-year students were not included in the study since they had not had sufficient time in HE and at their universities to provide information relevant to the study.

(vii) *Factors influencing choice of course of study:* This next section presents descriptive and inferential statistics of findings about factors that influenced respondents' choices of course of study. It will also compare variables and correlation between different groups of participants. For the most part, BAME students and white students will be the focus of the comparison.

A list of 8 factors that could have influenced respondents' choice of course of study were presented and respondents asked to rank them on a five-point scale from very uninfluential to highly influential with the middle ground of neither influential nor uninfluential. Table 5.5 below shows the distribution of respondents according to their opinions of factors that influenced their choices. From the table, 47.1% of the respondents indicated family advice as influential in the choice of course, while 34.0% were uninfluenced by it and 18.6% were undecided. The results showed that 83% of the respondents indicated that the potential for success in life was influential in their choice of course but for 14.2%, that was not influential and 2.8% were undecided. Also, 27.1% of the respondents indicated peers as being influential in their choice of course as against 54.3% who were not influenced by peers while 18.6 were undecided. 84.3% of the respondents indicated that prospects for employment is an influence for choice

of course while 11.4% and 4.3% represented uninfluential and undecided responses respectively. Respondents (78.6%) indicated interest in the subject as influential towards choice of course with 14.2% stating contrary and 7.1% being undecided. 40% of the respondents indicated that social mobility was not influential in choice of course while 35.7% were influenced by it and 24.3% could not arrive at a decision. Findings reveal that 47% of the respondents indicated that course reputation is an influential factor in choice of course but 37% were otherwise convinced and 16% were undecided. For the last factor current employment, 68.6% of the respondents opined that current employment is an influential factor while for 20% it was not true and 11.4% could not decide.

Table 5.5 Factors influencing choice of course

Factors	Very uninfluential (%)	Uninfluential (%)	Undecided (%)	Influential (%)	Highly influential (%)
Family advice	24.3	10	18.6	30	17.1
Potential for success	7.1	7.1	2.8	40	43
Peers	30	24.3	18.6	22.8	4.3
Employment prospects	8.6	2.8	4.3	38.6	45.7
Interest in the subject	7.1	7.1	7.1	38.6	40
Social mobility	25.7	14.3	24.3	24.3	11.4
Course reputation	10	27	16	37	10
Current employment	10	10	11.4	28.6	40

The aggregate mean value of all responses in relation to factors that affected the participants' choice of course of study is presented in Table 5.6. For some factors, the difference between their mean values is small. The highest influential factor was prospects for employment whereas the least contributory factor was peer influence. It shows that the aggregate means range from 2.47 to 4.10.

Table 5.6 Mean score for factors that influenced respondents' choice of course of study

Factors influencing choice of course	Mean value	Rank
Employment prospects	4.10	1
Potential for success	4.04	2
Interest in the subject	3.97	3
Current employment	3.79	4
Course reputation	3.10	5
Family advice	3.06	6
Social mobility	2.81	7.5
Peers	2.47	7.5

Representing this in a pie chart (Fig 5.3) helps to buttress the narrow difference that cuts across many mean values.

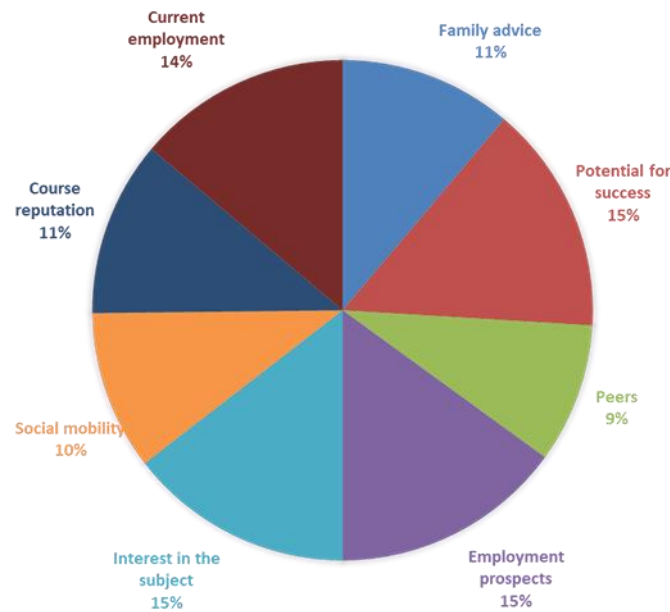


Fig 5.3 Factors that influenced participants' choice of course of study

The analysis goes further to compare the responses of participants based on their ethnicity to see if there is any correlation between ethnicity and factors that influenced the participants' choices of courses. The ranking of the aggregate means for the sample was superimposed on that of the mean values for BAME respondents and white respondents in descending order to test for correlation. This is depicted in Table 5.7.

Table 5.7 Cross-tabulation of the mean values based on ethnicity

Factors influencing choice of course of study	Aggregate mean (n = 70)	BAME (n=30)	White (n=40)
Employment prospects	4.10	4.2	4.03
Potential for success	4.04	4.03	4.05
Interest in the subject	3.97	4.17	3.83
Current employment	3.79	3.6	3.93
Course reputation	3.10	3.23	3
Family advice	3.06	3.07	3.055
Social mobility	2.81	3.33	2.43
Peers	2.47	2.63	2.35

Spearman's Rank correlation coefficient (ρ or r_s) (used to measure the strength of a monotonic relationship between paired data) was then calculated to test for any correlation between BAME participants' responses and their white peers' responses. As was explained in Chapter Four, Spearman's ρ was used because the data are ordinal. To rule out any relationship being the result of chance, the Spearman's Rank significance table was used to examine the statistical significance of the resultant coefficient at the confidence interval level of <0.05 . The result from the calculation of r_s for factors that influenced respondents' choice of course was 0.79. This showed that there is a high correlation between the factors that influenced the choice of course for the BAME student and the white students. The students were influenced similarly. Using the Spearman's Rank significance table, the coefficient value of 0.79 was greater than the critical value in the table (0.643) and therefore confirms that the correlation is statistically significant and provides a high level of confidence that the result is not by chance.

(viii) *Entry qualification*: This presents the descriptive statistics for entry qualifications for respondents. As the table below (Table 5.8) shows, there is little variation between BAMEs and whites for most of the entry qualifications. However, it is noteworthy that there was no BAME respondent with a HNC qualification and a higher number of white respondents got into HEI with an International Baccalaureate qualification. There were also 3 responses that were invalid as they did not fall into the categories of qualification for entry into HE. Since the analysis is only descriptive in nature, there was no need to make any adjustment.

Table 5.8 Distribution of respondents according to entry qualification and ethnicity

Entry qualification	BAME	White	n = 70	%
A'Levels	18	16	34	48.6
BTEC	8	9	17	24.3
International Baccalaureate	1	5	6	8.6
NVQs	2	4	6	8.6
Higher National Certificate (HNC)	0	4	4	5.7
Invalid	1	2	3	4.3
Total	30	40	70	100

(ix) *Expected degree class*: Descriptive statistics of respondents' expectations about the class of degree they would come out with show (Table 5.9) that most expected to come out with a first (37.1%), 10% were unsure, and there was no indication for a third or pass. It was surprising to note that a very high percentage (22.9%) provided invalid responses to this open-ended question. Invalid responses were mostly statements about qualifications expected (for example, BSc) rather than the degree classification for those qualifications.

Table 5.9 Distribution of respondents according to expected degree class and by ethnicity

Expected degree class	BAME	White	n = 70	%
First	12	15	26	37.1
Upper 2 nd Class	8	4	15	21.4
Lower 2 nd Class	3	3	7	10.0
Unsure	0	6	6	8.6
Invalid	7	12	16	22.9
Total	30	40	70	100

b) *The DAG*: The second part of the questionnaire investigated the knowledge of the DAG and its effects among students and this section presents the responses of the participants.

(i) *Awareness and understanding of the DAG*: Table 5.10 below presents a cross tabulation of the responses of participants about the DAG classified according to ethnicity. From the findings, more respondents were unaware of the DAG (50) than were aware (20) irrespective of ethnicity. It also shows that white respondents were more aware of the DAG than BAME respondents, and vice versa for ignorance.

Table 5.10 Cross tabulation of respondents' awareness of the DAG with ethnicity

Ethnicity	Awareness of DAG			
	Yes	No	Total	%
BAME	9	21	30	42.86
White	11	29	40	57.14
Total	20	50	70	100

The findings further explored the knowledge of the DAG based on gender and Table 5.11 presents the findings. Looking at the degree of knowledge (a little and quite a lot), male respondents were a little more knowledgeable about the gap irrespective of ethnicity (10% against 5%) and they also knew a lot more about the gap than female respondents (50% against 25%).

Table 5.11 Cross tabulation of respondents' awareness of the DAG with ethnicity and gender

Ethnicity	Awareness of DAG by Gender				Total
	A Little		Quite a lot		
	Male	Female	Male	Female	
BAME	3	4	2	0	9.00
White	7	1	3	0	11.00
Total	10	5	5	0	20.00
	A little: 15		Quite a lot: 5		
Percentage					
Ethnicity	A Little		Quite a lot		Total
	Male	Female	Male	Female	
BAME	15.0	20.0	10.0	0.0	45.0
White	35	5.0	15.0	0.0	55.0
Total	50.00	25.00	25.00	0.00	100.0
	A little: 75%		Quite a lot: 25%		

(ii) *Factorial explanations for the DAG*: This next section presents descriptive and inferential statistics of findings about factorial explanations for the DAG. It will also compare variables and correlation between different groups of participants. For the most part, BAME students and white students will be the focus of the comparison.

A list of 10 factors that could explain the DAG were presented and respondents asked to rank them on a five-point scale: strongly disagree, disagree, undecided, agree and strongly agree. Table 5.12 below shows the distribution of respondents according to their responses.

Table 5.12 Factorial explanations for the DAG

Factors	Strongly disagree (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly agree (%)
Entry qualifications	17.1	22.9	21.4	32.9	5.7
Sense of belonging	17.1	8.6	25.7	40	8.6
Curriculum content and design	31.4	24.3	24.3	20	0%
Teaching learning and assessment	27.1	17.1	28.6	22.9	4.3
Conscious or unconscious bias/racism	20	5.7	28.6	34.3	11.4
Institutional culture	15.7	7.1	24.3	42.9	10
Lack of role models and mentoring	114.3	8.6	20	32.8	24.3
Relationship with teachers and peers	20	12.9	25.7	31.4	10
Student support services	22.9	17.1	32.8	24.3	2.9
Placement	20	5.7	40	27.2	7.1

From the findings (Table 5.12), the factor that most explains the DAG for the respondents is lack of role models and mentoring (57.1%) followed by institutional culture (52.9%). Furthermore, 55.7% disagreed that curriculum content and design was a factor and 44.2% also disagreed that teaching, learning and assessment methods caused the DAG making those two factors the most disagreed with.

The aggregate mean value of all responses in relation to factors that could account for the DAG is presented in Table 5.13. For many factors, the difference between their mean values is small. The highest factorial explanation is lack of role models and mentoring whereas the least contributory factor was curriculum content and design. It shows that the aggregate means range from 2.33 to 3.44.

Table 5.13 Mean values for factorial explanations of the DAG

Factorial explanations of the DAG	Mean value
Lack of role models and mentoring	3.44
Institutional culture	3.24
Sense of belonging/integration	3.14
Unconscious bias/racism	3.11
Relationships with teachers and peers	2.99
Internship placement opportunities	2.96
Entry qualifications	2.87
Student support services	2.67
Teaching, learning and assessment	2.60
Curriculum content and design	2.33

The analysis goes further to compare the responses of participants based on their ethnicity to see if there is any correlation between ethnicity and factorial explanations for the DAG. The ranking of the aggregate means for the sample was superimposed on that of the mean values for BAME respondents and white respondents in descending order to test for correlation. This is depicted in Table 5.14.

Table 5.14 Cross-tabulation of the ranking of mean values based on ethnicity

	Aggregate mean (n = 70)	BAME (n=30)	White (n=40)
Lack of role models and mentoring	1	1	1
Institutional culture	2	2	2.5
Sense of belonging/integration	3	3	4.5
Institutional racism/unconscious bias	4	4	4.5
Relationships with teachers and peers	5	6	6
Internship placement opportunities	6	5	7
Entry qualifications	7	9	2.5
Student support services	8	7	9
Teaching, learning and assessment	9	8	8
Curriculum content and design	10	10	10

Spearman's Rank correlation coefficient was then calculated to test for any correlation between BAME participants' responses and their white peers' responses. To rule out any relationship being the result of chance, the Spearman's Rank significance table was used to examine the statistical significance of the resultant coefficient at the confidence interval level of <0.05. The result from the calculation of r_s was 0.68. This indicates a high correlation between the factorial explanations for the DAG between BAME students and white students. The students' perceptions are similar. Using the Spearman's Rank significance table, the coefficient value of 0.68 was greater than the critical value in the table (0.564) and therefore confirms that the correlation is statistically significant and provides a high level of confidence that the result is not by chance.

(iii) *Awareness of institution's interventions to close the DAG:* Findings show that most respondents (91.42%) were not aware of any intervention by their university to close the DAG and only 8.58% had any awareness (see Table 5.15). Furthermore, out of the 6 that were aware of some intervention, 4 were somewhat satisfied while 2 were neither satisfied nor dissatisfied.

Table 5.15 Respondents' awareness of interventions based on ethnicity and gender

Ethnicity	Awareness of interventions				Total
	Yes		No		
	Male	Female	Male	Female	
BAME	3	0	12	15	30.00
White	2	1	27	10	40.00
	5	1	39	25	70.00
Total	Yes: 6		No: 64		
Percentage					
Ethnicity	Yes		No		Total
	Male	Female	Male	Female	
	BAME	4.29	0.00	17.14	
White	2.86	1.43	38.57	14.29	57.1
	7.15	1.43	55.71	35.71	100.00
Total	Yes: 8.58%		No: 91.42%		

(iv) *Most effective intervention for closing the gap:* the respondents were provided with some of the major interventions applied by universities to reduce the attainment gap and asked to rearrange the interventions using ranks between 1 - 5 giving 1 to the least effective and 5 to the most effective in their opinion. The most effective intervention according to the responses is mentoring followed by a diverse workforce and this is depicted in Table 5.16 and Fig 5.4. The valued added score (VAS) was ranked the least effective intervention.

Table 5.16 Interventions by universities to close the DAG

Interventions to close the DAG	Rank1	Rank2	Rank3	Rank4	Rank5
Mentoring (MENTR)	14	3	16	17	20
Inclusive Curriculum (IncCur)	14	11	28	9	8
Value added score (VAS)	23	15	15	7	10
Diverse workforce (DivWork)	11	7	14	19	19
Inclusion of student voice (StuVoi)	13	10	16	20	11
Mode	23	15	28	20	20

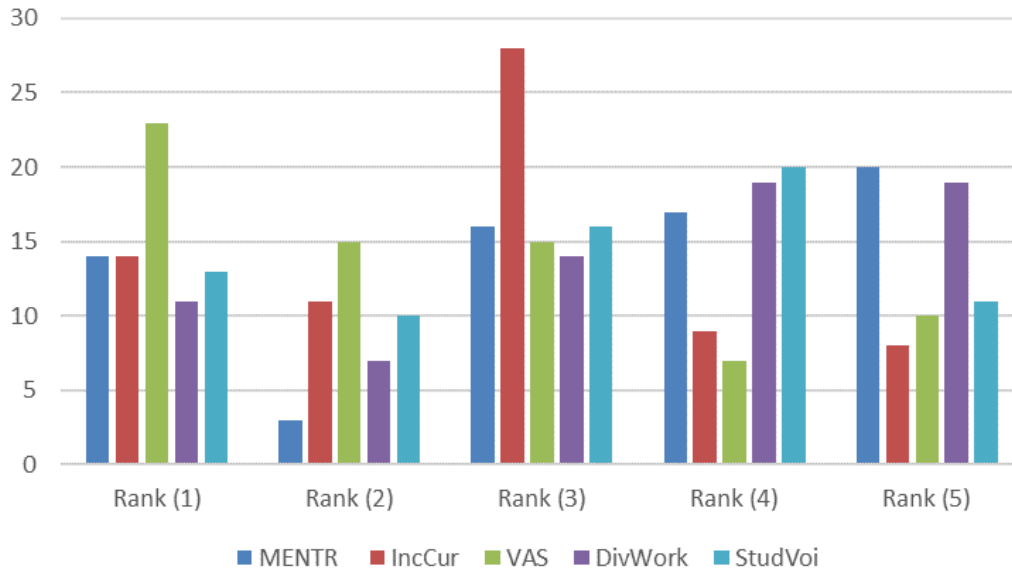


Fig 5.4 Effective interventions by universities to close the DAG

c) *Experience*: The third part of the questionnaire sought for the respondents’ opinion about their experiences at university.

(i) *Ethnic representation*: Respondents were asked how well they agreed that their ethnic identity was reflected among the following groups at their university – non-academic staff, academic staff, course representatives, Students’ Union (SU) officials and students. The findings are presented in Fig 5.5.

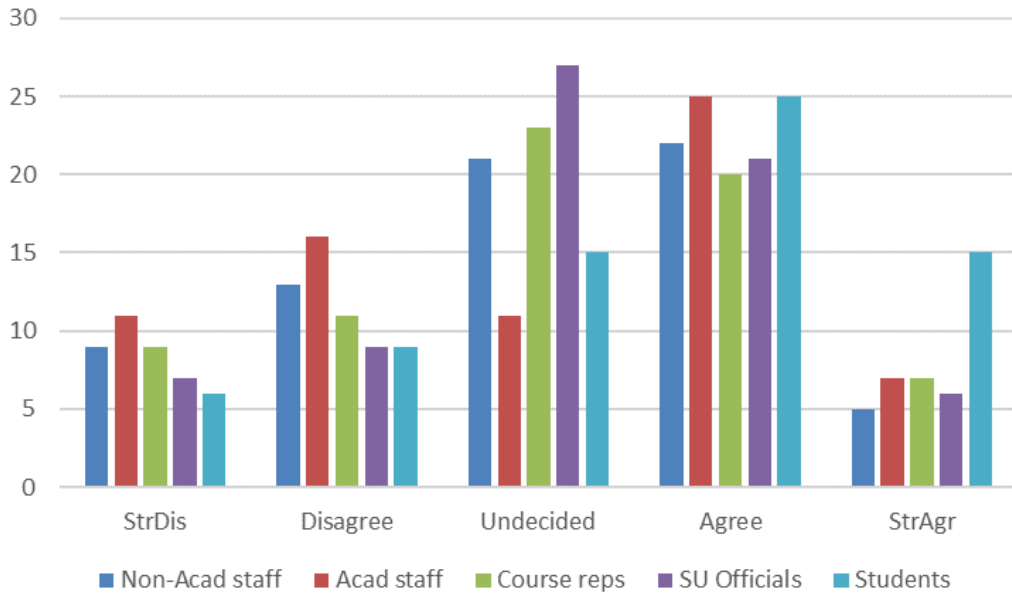


Fig 5.5 Respondents' ethnic representation across 5 categories

From Fig 5.5 findings reveal that while respondents agreed most with their ethnic representation among students, they disagreed least with it when it came to academic staff. Additionally, there were a lot of "undecided" responses in all of the categories. Ethnic representation was further analysed to show percentages (Table 5.17).

From the table, BAME respondents agreed more about their representation among academic staff (50%) than white respondents (42.5%), among students (60%:55%) and among SU Officials (40%:37.5%). White respondents were more inclined to agree that they were represented than BAME respondents when evaluating representation among non-academic staff (40%:36.7%) and course representatives (45%:30%).

Table 5.17 Cross tabulation of respondents' ethnic representation across five categories

Academic staff						
Ethnicity	Disagree	%	Undecided	%	Agree	%
BAME	10	33.3	5	16.7	15	50.0
White	17	42.5	6	15.0	17	42.5
Course Representative						
Ethnicity	Disagree	%	Undecided	%	Agree	%
BAME	9	30.0	12	40.0	9	30.0
White	11	27.5	11	27.5	18	45.0
Non-Academic staff						
Ethnicity	Disagree	%	Undecided	%	Agree	%
BAME	6	20.0	13	43.3	11	36.7
White	16	40.0	8	20.0	16	40.0
Students						
Ethnicity	Disagree	%	Undecided	%	Agree	%
BAME	5	16.7	7	23.3	18	60.0
White	10	25.0	8	20.0	22	55.0
Students Union Officials						
Ethnicity	Disagree	%	Undecided	%	Agree	%
BAME	5	16.7	13	43.3	12	40.0
White	11	27.5	14	35.0	15	37.5

(ii) *Factors affecting study*: This section presents descriptive and inferential statistics of findings about factors that affect students' study. It will also compare variables and investigate correlation between different groups of participants. For the most part, BAME students and white students will be the focus of the comparison. On the basis of their personal experiences, the students were asked to rate how much they agreed with a given list of factors as having had an impact on their study. Table 5.18 shows the distribution of participants according to their responses.

Table 5.18 Factors that impact students' study

Factor	Strongly Disagree (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly Agree (%)
Sense of belonging	15.7	22.9	15.7	34.3	11.4
My contributions in class are valued	8.6	14.3	21.4	48.6	7.1
Assessment methods are fair	4.3	7.1	14.3	55.7	18.6
Sufficient academic support	8.6	18.6	22.8	37.1	12.9
Negative expectation from staff and peers	20	32.8	30	17.1	0
Inclusive learning and teaching	14.3	7	32.8	38.6	4.3
Decolonization of curriculum/inclusive curriculum	27.1	10	48.6	12.9	1.4
Microaggressions	32.8	14.3	31.5	20	1.4
Role methods/mentors	10.0	17.1	35.7	35.7	8.6
Contact with tutors	12.9	41.3	25.7	35.7	11.4
Racism/unconscious bias	32.9	21.4	25.7	15.7	4.3
Good support services	11.4	11.4	28.6	42.9	5.7
Placement opportunities	15.7	12.9	35.7	24.3	11.4

Among the respondents, 74.3% said they agreed that fair assessment methods had an impact on their academic performance. This was followed by 55.7% who said that their contributions in class are valued. The two factors that were mostly disagreed with were racism/unconscious bias (54.3%) and negative expectations from staff and peers (52.8%).

The aggregate mean value of all responses in relation to factors that impact academic performance is presented in Table 5.19. The highest impactful factor is that assessment methods are fair whereas the least impactful factor is racism/unconscious bias. The aggregate means range from 2.37 to 3.77.

Table 5.19 Mean value of factors that impact respondents' study

Factors impacting study	Mean value
Assessment methods are fair	3.77
My contributions in class are valued	3.31
Sufficient academic support	3.27
Good student support services	3.20
Contact with tutors	3.19
Role models/mentors	3.16
Inclusive learning and teaching	3.09
Sense of belonging/integration	3.03
Placement opportunities	3.03
Decolonisation of curriculum	2.51
Negative expectation from staff and peers	2.44
Microaggressions	2.43
Racism/unconscious bias	2.37

The analysis goes further to compare the responses of participants based on their ethnicity to see if there is any correlation between respondents' ethnicity and their perception of factors that impact study. The ranking of the aggregate means for the sample was superimposed on that of the mean values for BAME respondents and white respondents in descending order to test for correlation. This is depicted in Table 5.20.

Table 5.20 Cross-tabulation of the ranking of mean values based on ethnicity

Statements	Aggregate mean (n = 70)	BAME (n=30)	White (n=40)
Assessment methods are fair	1	1	1
My contributions in class are valued	2	4	2
Sufficient academic support	3	3	3
Good student support services	4	5	4.5
Contact with tutors	5	6	4.5
Role models/mentors	6	7	6
Inclusive learning and teaching	7	2	9
Sense of belonging/integration	8.5	8	8
Placement opportunities	8.5	9	7
Decolonisation of curriculum	10	10	10.5
Negative expectation from staff and peers	11	12.5	10.5
Microaggressions	12	12.5	12
Racism/unconscious bias	13	11	13

The results of BAME participants and those of their white colleagues were then compared using Spearman's Rank correlation coefficient to see if there was any correlation. The statistical significance of the resulting coefficient at the confidence interval level of <0.05 was checked using the Spearman's Rank significance table to rule out any association being the result of chance. The result from the calculation of r_s was 0.81. This indicates that there is a

strong link between the factors that affect BAME students' academic performance and those that affect white students. The influences on the students are similar irrespective of their ethnicity. Using the Spearman's Rank significance table, the coefficient value of 0.81 is greater than the critical value in the table (0.484), which shows that the correlation is statistically significant and gives a high level of confidence that the outcome is not random.

(iii) *Learning environment*: The respondents' opinions about the learning environment at their universities were solicited as they were questioned about whether they thought their learning environment was positive, negative, or uncertain. The participants' responses are presented in Table 5.21.

Table 5.21 Distribution of responses about learning environment

Learning environment	Frequency	%
Positive	52	74.3
Negative	4	5.7
Not Sure	14	20
Total	70	100

It is noteworthy that 20% of the respondents were uncertain about the nature of their learning environment.

They were further asked to assess their learning environment using the following characteristics: welcoming, supportive, friendly, inclusive, positively challenging, daunting, racist, hostile, or cliquey. Fig 5.6 depicts the responses of the participants.

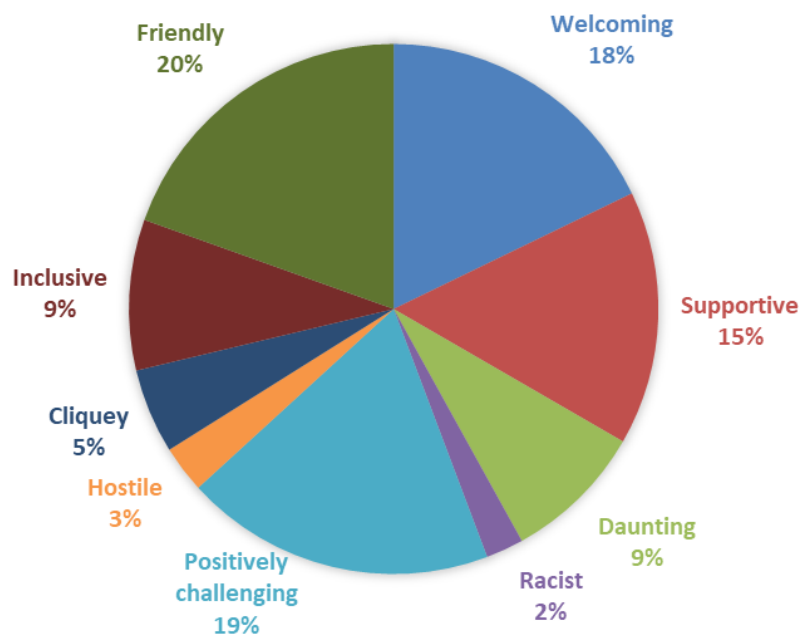


Fig 5.6 Learning environment at university

Overall, most respondents described the learning environment at their universities positively with the characteristics of being friendly, welcoming and supportive.

(iv) *Exposure to racial abuse*: This last question for the student participants sought to find out if any students had been racially abused, if and how it was resolved. The responses are presented in the Table 5.22 and show that 10% indicated that they had been victims of racial abuse and this cuts across gender and ethnicity. Of the 10%, only one stated that they reported the case but did not state if or how the case was resolved.

Table 5.22 Crosstabulation of students' exposure to racial abuse relative to ethnicity and gender

Ethnicity	Victim of Racial Abuse (VORA)				Total n = 70
	Yes		No		
	Male	Female	Male	Female	
BAME	3	2	12	13	30
White	1	1	28	10	40
Total	4	3	40	23	70
	Yes: 7		No: 63		
Percentage					
Ethnicity	Yes		No		Total
	Male	Female	Male	Female	
BAME	4.3	2.9	17.1	18.6	42.9
White	1.4	1.4	40.0	14.3	57.1
Total	5.7	4.3	57.1	32.9	100
	Yes: 10%		No: 90%		

5.2.2.2 Questionnaire for academics

The study consisted of 30 participants who were academics from the BE sector. The respondents will be categorised based on their role or positions into lecturers and senior management. For the most part, this categorisation will be the focus of comparisons in the study to see if one's position influences their perception.

a) *Participants' profiles*: The first section presents descriptive statistics of the participants' profile - gender, ethnicity, department, academic position at university and university location.

(i) *Gender*: The pie chart below (Fig. 5.7) shows the gender distribution for the academics. Among the participants, 63% were male while 30% were women and 7% preferred not to say (PNTS).

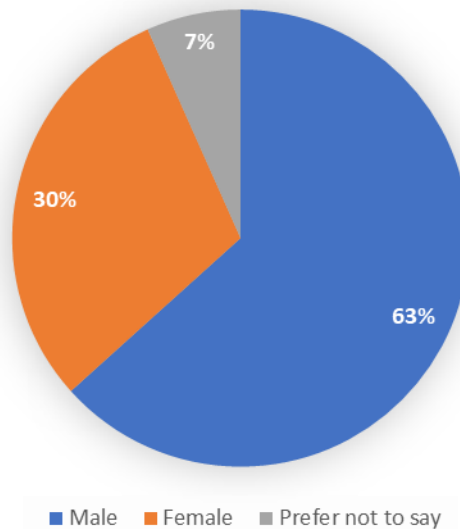


Fig 5.7 Distribution of respondents according to gender

(ii) *Ethnicity:* In terms of ethnicity, there was an equal number of participants: 50% identified as BAME and 50% identified themselves as being white.

(iii) *Department:* The responses indicated that the participants were from 6 areas of the BE (Table 5.23).

Table 5:23 Distribution of respondents according to departments

Department	Responses
Architecture	4
Building Services Engineering	4
Building Surveying	3
Civil Engineering	4
Construction Management	10
Quantity Surveying	5
Total	30

(iv) *Role/position:* This was categorised into lecturers and senior management as earlier stated and the findings indicated that out of 30 participants, 26.7% were of senior management (SMGT) level while 73.3% were lecturers (LECTR). Roles were further cross tabulated with gender and ethnicity for comparison and are presented in Tables 5.24 and 5.25 respectively.

Table 5.24 Cross tabulation of role with gender

Role	Gender			Total	%
	Male	Female	PNTS		
Senior Management	7	1	0	8	26.7
Lecturer	12	8	2	22	73.3
Total	19	9	2	30	100
Percentage (%)	63.3	30	6.7	100	

Table 5.25 Cross tabulation of role with ethnicity

Ethnicity	Role		n = 30 Total	%
	SMGT	LECTR		
BAME	6	9	15	50
White	2	13	15	50
Total	8	22	30	100
Percentage (%)	26.7	73.3	100	

(v) *Geographical location of HEI:* Findings of the study show that the majority (63.3%) of the respondents' universities were in the southern part of England while 36.7% stated that their university was in the northern part.

Table 5.26 Distribution of respondents according to HEI's geographical location

Geographical location	Total	%
North	11	36.7
South	19	63.3
Total	30	100

b) *The DAG:* The second part of the questionnaire examined academics' understanding of the DAG and its effects. This section contains the participants' responses.

(i) *Awareness and understanding of the DAG:* 29 out of 30 participants stated that they are aware of the DAG and only one indicated no knowledge of it. All senior management were aware of the gap irrespective of their ethnicity. Table 5.27 below presents a cross tabulation of the responses of participants about the DAG classified according to academic position and ethnicity. From the findings, 68.97% of all academics knew a little about the gap while only 31.03% knew a lot about it. This shows that there is a big gap within the degrees of knowledge about the DAG.

Table 5.27 Cross tabulation of academics' awareness of the DAG by position and ethnicity

Ethnicity	Awareness of DAG by position				Total
	A Little		Quite a lot		
	SMGT	LECT R	SMGT	LECT R	
BAME	4	5	2	3	14
White	1	10	1	3	15
Total	5	15	3	6	29
	A little: 20		Quite a lot: 9		
Percentage					
Ethnicity	A Little		Quite a lot		Total
	SMGT	LECT R	SMGT	LECT R	
BAME	13.8	17.2	6.9	10.3	48.3
White	3.4	34.5	3.4	10.3	51.7
Total	17.24	51.72	10.34	20.69	100.0
	A little: 68.97%		Quite a lot: 31.03%		

(ii) *Factorial explanations for the DAG:* The findings of factorial explanations for the DAG are presented in this section using descriptive and inferential statistics. In particular, it will compare and correlate variables between lecturers and senior management.

A list of 12 factors that could explain the DAG were presented and respondents asked to rank them on a five-point scale: strongly disagree, disagree, undecided, agree and strongly agree. Table 5.28 shows the distribution of respondents according to their responses.

Table 5.28 Factorial explanations for the DAG

Factors	Strongly disagree (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly agree (%)
Entry qualifications	3.3	20	20	40	16.7
Sense of belonging	0	10	16.7	60	13.3
Curriculum content and design	10	23.3	33.3	26.7	6.7
Teaching learning and assessment	13.3	26.7	36.6	16.7	6.7
Retention and progression rates	10	13.3	26.7	46.7	3.3
Inflated grades	16.7	23.3	43.3	10	6.7
Institutional racism/unconscious/bias	13.3	20	23.3	33.4	10
Institutional culture and self-delusion	6.7	20	23.3	40	10
Lack of role models and mentoring	6.7	13.3	3.3	53.4	23.3
Blame game	10	6.7	53.3	26.7	3.3
Students support services	13.3	23.3	36.7	20	6.7
Internship placement opportunities	10	16.7	30	33.3	10

Results from Table 5.28 reveal that the factor that most explains the DAG for the respondents is lack of role models and mentoring (76.7%) followed by sense of belonging (73.3%) and then entry qualification (56.7%). Furthermore, 40% disagreed that inflated grades were a factor and 40% also disagreed that teaching, learning, and assessment methods causes the DAG making those two factors the most disagreed with. Notably, there were a significant number of undecided responses for the two factors that were most disagreed with, 43.3% and 36.6%, respectively.

Table 5.29 displays the average mean value of all responses in relation to the variables that could explain the DAG in descending order. There is however a slight difference between factorial explanation for the DAG using the highest percentage as in Table 5.28 (lack of role models and mentoring 76.7%) and the highest factorial explanation using overall mean (sense of belonging 73.3%). Using the average mean, the highest factorial explanation is sense of belonging/integration (3.77) followed by lack of role models and mentoring (3.73). This is most likely a result of computer-generated estimates for decimal places. The least contributory factors were inflated grades (2.67) and teaching, learning and assessment methods (2.77) using the average means. However, looking at responses in terms of percentages, both factors had 40%. The aggregate means range from 2.67 to 3.77.

Table 5.29 Mean value for factorial explanations for the DAG

Factorial explanations of the DAG	Mean value
Sense of belonging/integration	3.77
Lack of role models and mentoring	3.73
Entry qualifications	3.47
Institutional culture and self-delusion	3.27
Retention and progression rates	3.20
Internship placement opportunities	3.17
Institutional racism/unconscious bias	3.07
Blame game	3.07
Curriculum content and design	2.97
Student support services	2.83
Teaching, learning and assessment	2.77
Inflated grades	2.67

The analysis continues by comparing participant responses according to their roles to determine whether there is a relationship between role and factorial explanations for the DAG. The ranking of the aggregate means for the sample was superimposed on that of the mean values for senior management and lecturers in descending order to test for correlation. This is depicted in Table 5.30.

Table 5.30 Cross-tabulation of the ranking of mean values based on ethnicity

Factors	Aggregate (n = 30)	SMGT (n=8)	LECTR (n=22)
Sense of belonging/integration	1	1	2
Lack of role models and mentoring	2	8.5	1
Entry qualifications	3	2.5	3
Institutional culture and self-delusion	4	11	4
Retention and progression rates	5	2.5	6.5
Internship placement opportunities	6	4	6.5
Institutional racism/unconscious bias	7.5	8.5	8
Blame game	7.5	12	5
Curriculum content and design	9	5.5	9
Student support services	10	8.5	10
Teaching, learning and assessment	11	5.5	11
Inflated grades	12	5.5	12

Spearman's Rank correlation coefficient test was performed to see if there was any correlation between the responses from senior management and the lecturers. The statistical significance of the resulting coefficient was assessed using the Spearman's Rank significance table at the confidence interval level of <0.05 in order to rule out any correlation being the result of chance.

The result from the calculation of r_s was 0.1. This indicates a weak correlation between the factorial explanations for the DAG between senior management and lecturers. So, the relationship is not very strong although both tend to go up in response to one another. This signifies that the perceptions of both categories of academics about the causes of the DAG are somewhat divergent. Using the Spearman's Rank significance table, the coefficient value of 0.1 was less than the critical value in the table (0.503) so even though there is a weak correlation between the two variables, there is no significant relationship between the two.

(iii) *Major effective interventions for closing the gap:* the respondents were provided with some of the major interventions applied by universities to reduce the attainment gap and asked to rearrange the interventions using ranks between 1 - 5 giving 1 to the least effective and 5 to the most effective in their opinion. Interventions listed were: mentoring, inclusive curriculum, value added score (VAS), diverse work workforce and inclusion of student voice. The most effective intervention according to the responses is mentoring followed by a diverse workforce and this is depicted in Fig 5.8. The valued added score (VAS) was ranked the least effective intervention.

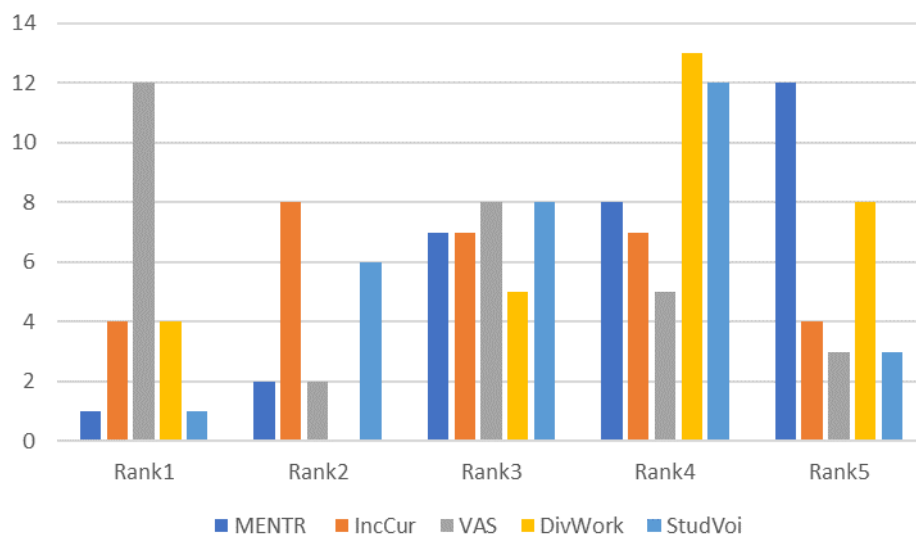


Fig 5.8 Interventions by universities to close the DAG

(iv) *Satisfaction with institution's interventions to close the DAG:* Findings show that greater percentage of the respondents (43.3%) were satisfied with interventions by their universities to close the DAG while 36.7% were neither satisfied nor dissatisfied and 20% were somewhat dissatisfied (Fig 5.9).

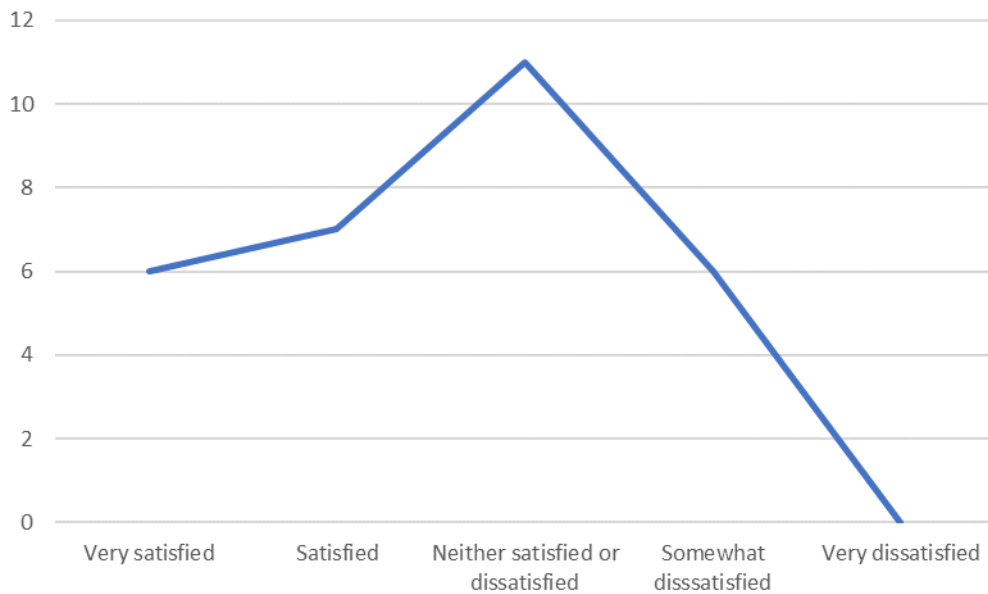


Fig 5.9 Respondents satisfaction with institution's interventions

(v) *Measures that could be influential in closing the DAG:* This next section presents descriptive and inferential statistics of findings about measures that could help to eliminate the gap. A list of 12 measures were presented and respondents asked to rank them on a five-point scale from very uninfluential to highly influential based on how important they thought the measures were in the quest to close the DAG. Results depicted in Table 5.31 reveal that the measure that respondents thought is most influential is listening to BAME students (aggregate mean value 4.27) and the least influential was anonymous marking with an aggregate mean of 3.20.

Table 5.31 Aggregate mean values for measures to close the DAG

Measures for closing the DAG	Mean value
Listening to BAME students	4.27
Institutional leadership owning and leading the change	4.17
Collaborative learning	4.00
Educating about racism and acting against racism	3.97
Cultural and social interactions	3.93
Individual institutional response	3.83
Decolonisation of the curricula and diversity	3.77
Making the DAG a Key Performance Indicator (KPI)	3.70
Provision of safe spaces	3.63
Increasing the number of BAME academics	3.63
Work placements opportunities for BAMEs	3.33
Anonymous marking	3.20

To ascertain whether there is a correlation between participants' roles and their perceptions of effective measures that can help to close the DAG, the study next compared participant responses based on their roles. The ranking of the aggregate means for the sample was superimposed on the rankings of the mean values for senior management and lecturers in descending order to test for correlation. This is depicted in Table 5.31 and shows some correlation although the lecturers were closer to the aggregate means than senior management in most instances.

Table 5.31 Cross-tabulation of the ranking of mean values based on ethnicity

Measures	Aggregate (n=30)	SMGT (n=8)	LECTR (n=22)
Listening to BAME students	1	1.5	1
Institutional leadership owning and leading the change	2	1.5	2
Collaborative learning	3	8.5	3
Educating about racism and acting against racism	4	4.5	4.5
Cultural and social interactions	5	6.5	4.5
Individual institutional response	6	10	6
Decolonisation of the curricula and diversity	7	4.5	7
Making the DAG a Key Performance Indicator (KPI)	8	3	9.5
Provision of safe spaces	9.5	8.5	8
Increasing the number of BAME academics	9.5	6.5	9.5
Work placements opportunities for BAMEs	11	12	11
Anonymous marking	12	11	12

Furthermore, to statistically determine whether there was any correlation between the results from lecturers and senior management, the Spearman's Rank correlation coefficient test was used. The outcome of the computation of r_s was 0.61. This indicates that there is a strong correlation between the perceptions of lecturers and senior management on important measures to close the DAG. Using the Spearman's Rank significance table at the confidence interval level of <0.05 , the coefficient value of 0.61 is greater than the critical value in the table (0.503), which shows that the correlation is statistically significant and gives a high level of confidence that the outcome is not random.

(vi) *Most important measure according to respondents:* Respondents were asked to suggest one action they thought HEIs should be taking to progress better in closing the DAG and the findings are presented here. Since this was an open-ended question, the responses were analysed and categorised and are shown in Fig 5.10. Three were invalid because as an example, the name of a respondent's university was given as a response, and so those

responses were excluded. There was no mode and no need to amend such responses because this was not an ordinal question.

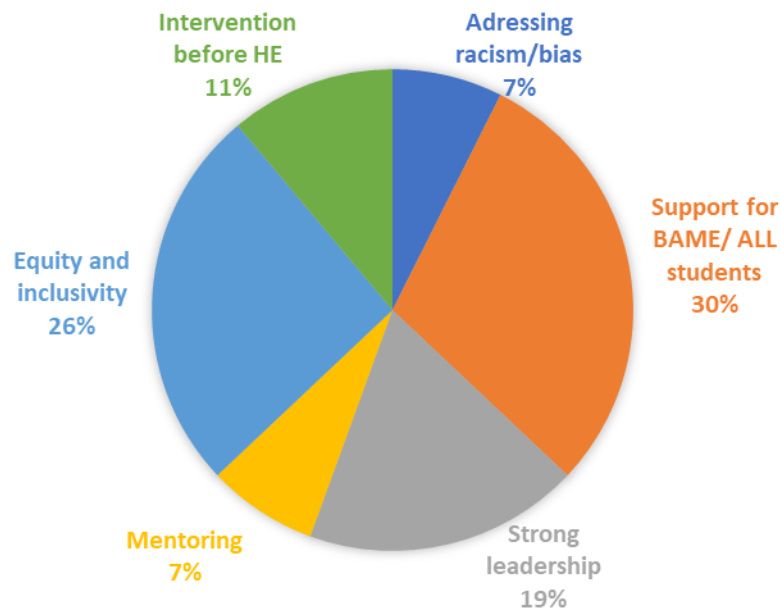


Fig 5.10 Most important measure HEIs should consider according to respondents

From Fig 5.10, respondents believed that the one thing HEIs should be doing to advance further in the effort to close the DAG should be to support BAME and indeed all students. The second action is to ensure equity and inclusivity, while the last two suggestions are mentoring and addressing racism/bias.

(vii) Personal action taken by respondents to address the gap: Participants were then requested to state any action they had personally taken to address the issue of the DAG in their subject areas. Fig 5.11 is the visual representation of the respondents' actions. The largest category was inclusive learning (39%) and actions listed under this include decolonising curriculum, providing accessible teaching materials, listening to BAME students and encouraging collaborative work. Providing extra support category (25%) had actions like more personalised approach to tutoring, seeking appropriate mentors for students and directing students with difficulties to skills learning teams. For embedding equity and justice (22%), academics employed equity in dealings, being EDI champion, positive action with all students and the likes. However, 14% acknowledged that they had not personally taken any action to address the issue of the DAG in their subject areas.

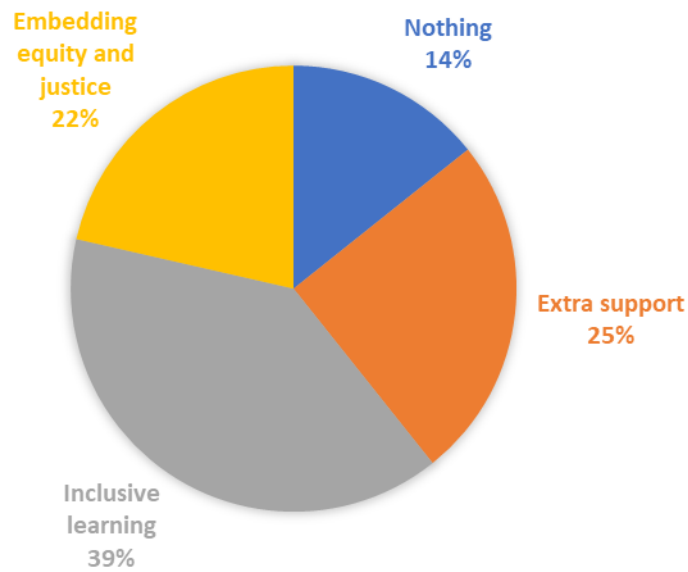


Fig 5.11 Personal interventions by academics in their subject areas

c) *Experience*: The third part of the questionnaire sought for the respondents' opinion about their experiences at their universities.

(i) *Ethnic representation*: Respondents were asked how well they agreed that their ethnic identity was reflected among the following groups at their university – non-academic staff, academic staff, and students. The overall findings show that most respondents agreed that their identity were represented among non-academic staff by 40%, academic staff by 56.7% and by students 53.3%. This is visually presented in Fig 5.12.

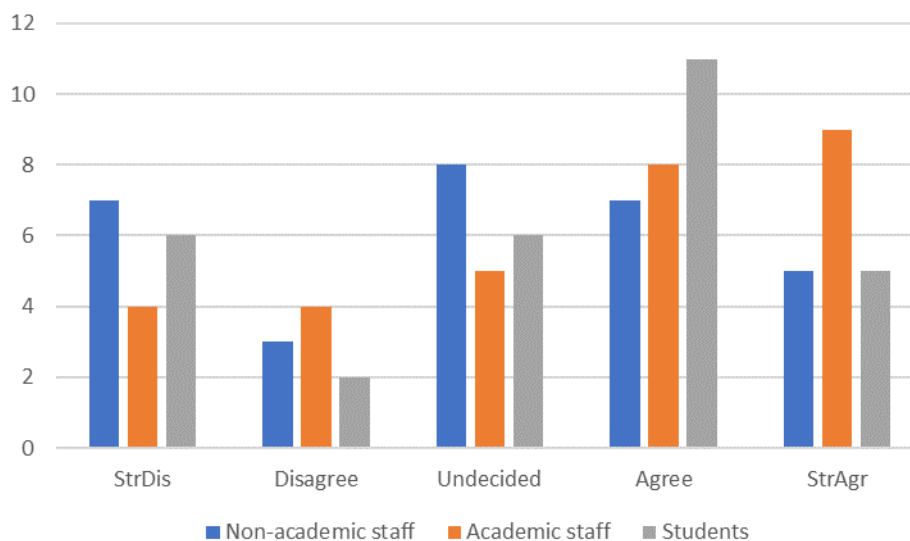


Fig 5.12 Respondents' ethnic representation across 3 categories

Table 5.32 shows the distribution of respondents based on their roles. Most respondents among senior management agreed that their ethnicity was represented at the academic staff level, half at students' level and 1 at non-academic level. Many lecturers agreed overall that their identify was reflected across the three categories. There was quite a good number who were unsure of their representation across the categories.

Table 5.32 Cross tabulation of respondents' ethnic representation based on role

Ethnic representation of senior management						
Category	StrDis	Disagree	Undecided	Agree	StrAgr	N = 8
Non-academic staff	2	2	3	0	1	8
Academic staff	0	1	2	2	3	8
Students	0	2	2	2	2	8
Total	2	5	7	4	6	
Ethnic representation of lecturers						
Category	StrDis	Disagree	Undecided	Agree	StrAgr	N = 22
Non-academic staff	5	1	5	7	4	22
Academic staff	4	3	3	6	6	22
Students	6	0	4	9	3	22
Total	15	4	12	22	13	

(ii) *DAG and university learning environment*: Respondents were provided with some statements about the DAG and learning environments and asked to rank them on a five-point scale from strongly disagree to strongly agree based on what is obtainable at their university. Aggregate means for all the statements is presented in Table 5.33 and shows the statement most true for respondents is that assessments are fair, and this was followed by the acknowledgement that the DAG has social justice implications for the BE and HE. Many respondents disagreed that there is enough information about the DAG and this is buttressed by an even higher number of respondents disagreeing that staff have a good knowledge of the gap.

Table 5.33 Aggregate means for what is obtainable at respondents' universities

Statements	Mean value
Assessment methods are fair	4.13
The degree awarding gap has social justice implications for the Built Environment and HE	3.93
Learning and teaching are inclusive	3.77
Senior management is strongly committed to closing the gap	3.77
There is sufficient academic support for students	3.67
Closing the gap should be a top priority	3.63
Positive action would be effective in addressing inequalities	3.47
Staff are committed to improving learning and closing the gap	3.43
BMEs are involved in decision-making processes for institutional and sector-wide issues	3.43
Bias/institutional racism starts early	3.37
Policies on diversity and equality are well implemented	3.37
Incidents of racism are adequately handled	3.27
Effective unconscious bias training is in place	3.23
There is credible ethnic diversity at the senior positions	3.07
BMEs value role models/mentors more than other ethnic groups	3.00
Number of BME staff reflects the proportion of BME students	3.00
Microaggressions are overlooked	2.93
BMEs in academia find it very difficult to progress in their career as a result of systemic barriers	2.80
There is enough information about the gap	2.63
Staff have a good understanding of the gap	2.47

The analysis goes further to compare the responses of participants based on their roles to see if there is any correlation between respondents' roles and their perception of what is obtainable at their university based on the given statements. The ranking of the aggregate means for the sample was superimposed on the rankings of the mean values for senior management and lecturers in descending order to test for correlation. This is depicted in Table 5.34. Findings indicate that respondents who were lecturers were closer to the aggregate means than the senior management in most instances.

Table 5.34: Cross-tabulation of the ranking of mean values based on ethnicity

Statements	Aggregate (n=30)	SMGT (n=8)	LECTR (n=22)
Assessment methods are fair	1	2	1
The attainment gap has social justice implications for the Built Environment and HE	2	1	4.5
Learning and teaching are inclusive	3.5	6.5	2.5
Senior management is strongly committed to closing the attainment gap	3.5	6.5	2.5
There is sufficient academic support for students	5	12.5	4.5
Closing the gap should be a top priority	6	3	6
Positive action would be effective in addressing inequalities	7	5	8.5
Staff are committed to improving learning and closing the attainment gap	8.5	6.5	8.5
BMEs are involved in decision-making processes for institutional and sector-wide issues	8.5	12.5	7
Bias/institutional racism starts early	10.5	10.5	10.5
Policies on diversity and equality are well implemented	10.5	10.5	10.5
Incidents of racism are adequately handled	12	6.5	13
Effective unconscious bias training is in place	13	4	14.5
There is credible ethnic diversity at the senior positions	14	20	12
BMEs value role models/mentors more than other ethnic groups	15.5	16.5	16
Number of BME staff reflects the proportion of BME students	15.5	18.5	14.5
Microaggressions are overlooked	17	12.5	17
BMEs in academia find it very difficult to progress in their career as a result of systemic barriers	18	12.5	18
There is enough information about the gap	19	18.5	19
Staff have a good understanding of the attainment gap	20	16.5	20

Furthermore, to statistically determine whether there was any correlation between the results from lecturers and senior management, the Spearman's Rank correlation coefficient test was used. The outcome of the computation of r_s was 0.65 indicating a strong positive correlation between the perceptions of lecturers and senior management. Using the Spearman's Rank significance table at the confidence interval level of <0.05, the coefficient value of 0.65 is greater than the critical value in the table (0.414), which shows that the correlation is statistically significant and gives a high level of confidence that the outcome is not random.

(iii) *Learning environment*: The respondents' opinions about the learning environment at their universities were solicited as they were questioned about whether they thought their learning environment was positive, negative, or uncertain. Their responses are presented in Table 5.35.

Table 5.35 Distribution of responses about learning environment

Learning environment	Frequency	%
Positive	27	90
Not sure	3	10
Negative	0	0
Total	30	100

They were further asked to assess their learning environment using the following characteristics: welcoming, supportive, friendly, inclusive, positively challenging, daunting, racist, hostile, or cliquy. Fig 5.13 depicts the responses of the participants. It is note worthy that even for respondents who stated that their learning environment was daunting or cliquy, they still were positive about the environment.

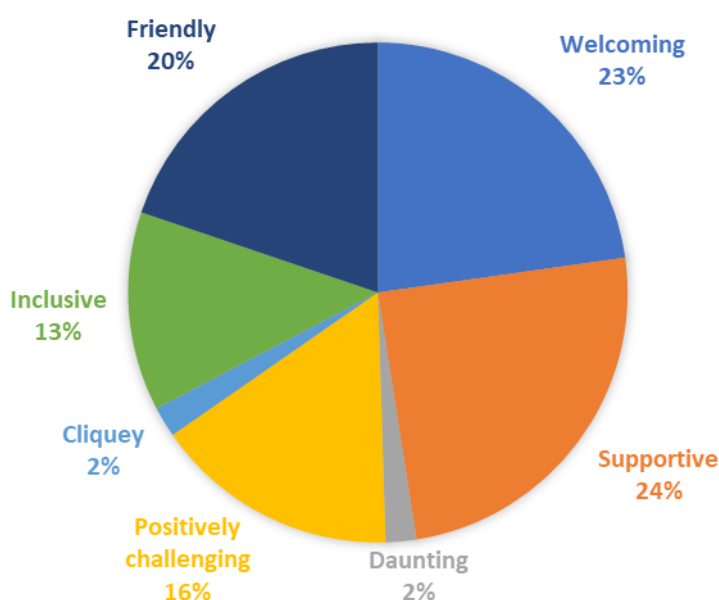


Fig 5.13 Learning environment at university

(iv) *Exposure to racial abuse*: This question sought to find out if any academic had been racially abused and if yes, how it was resolved. The responses are presented in the Table 5.36 and show that 7 out of 30 indicated that they had been victims of racial abuse and this cuts across gender and ethnicity. Of the 7 victims, 4 did not disclose the nature of abuse while one took place at a previous place of employment and the 7th outside the UK. Only one stated that the case was resolved.

Table 5.36 Crosstabulation of academics' exposure to racial abuse based on ethnicity and gender

Ethnicity	Yes			No		
	Male	Female	PNTS	Male	Female	PNTS
BAME	10%	0%	3.3%	26.7%	10%	0%
White	6.7%	0%	3.3%	20%	20%	0%
Total	16.7%	0%	6.6%	46.7%	30%	0%
	Yes: 23.3%			No: 76.7%		

d) *BAMEs in the Construction Industry*: There is a glaring underrepresentation of BAMEs in the BE industry, as was already mentioned in this study. This section sought academics opinions on some of the issues around this underrepresentation.

(i) A list of eleven statements was provided and respondents asked to rank them on a five-point scale from strongly disagree to strongly agree with the middle ground of being undecided. Aggregate means for all the statements is presented in Table 5.37 and show the statement most true for respondents is that informal associations aid progression in the industry, and this was followed by the acknowledgement that BAMEs are grossly underrepresented in the industry. Many respondents disagreed that BAMEs lack necessary skills and qualifications or that racism/unconscious bias is properly addressed.

Table 5.37 Aggregate means for responses about BAMEs and the BE industry

The BE industry	Mean value
Informal associations aid progression	3.87
BAMEs are grossly underrepresented	3.73
BAMEs face employment barriers	3.70
BAME progression is very slow	3.47
Retention of BAMEs is improving	3.40
A 'good' degree is essential for senior management	3.40
BAMEs have good training opportunities	3.17
Information dissemination is just and fair	2.90
Many BAMEs are at senior management levels	2.77
Racism/unconscious bias is properly addressed	2.47
BAMEs lack necessary skills and qualifications	2.40

To ascertain whether there is a correlation between participants' roles and their perceptions of BAMEs and the BE industry, the study next compared participant responses based on their roles. The ranking of the aggregate means for the sample was superimposed on the rankings

of the mean values for senior management and lecturers in descending order to test for correlation. This is depicted in Table 5.38 and shows some correlation although the lecturers were closer to the aggregate means than senior management in many instances.

Table 5.38: Cross-tabulation of the ranking of mean values based on roles

The BE industry	Aggregate mean	SMGT mean	LECTR mean
Informal associations aid progression	1	5	1
BAMEs are grossly underrepresented	2	1.5	2.5
BAMEs face employment barriers	3	3	2.5
BAME progression is very slow	4	4	5
Retention of BAMEs is improving	5.5	6	4
A 'good' degree is essential for senior management	5.5	1.5	6
BAMEs have good training opportunities	7	7	7
Information dissemination is just and fair	8	8	9
Many BAMEs are at senior management levels	9	11	8
Racism/unconscious bias is properly addressed	10	10	10
BAMEs lack necessary skills and qualifications	11	9	11

Additionally, the Spearman's Rank correlation coefficient test was utilised to statistically establish whether there was any association between the results from lecturers and senior management. The outcome of the computation of r_s was 0.74. This indicates that there is a strong positive correlation between the perceptions of lecturers and senior management about BAMEs and employment within the BE industry. The coefficient value of 0.74 is higher than the critical value (0.536) in the Spearman's Rank significance table at the confidence interval level of <0.05 , demonstrating that the correlation is statistically significant and providing a high level of confidence that the result is not random.

(ii) *Qualities BAMEs bring to the industry:* Respondents were asked to state in their opinion qualities that BAME background employees bring to the industry. The open-ended question generated many answers which were analysed and categorised into 6 groups. Fig 5.14 illustrates these views. 50% of the respondents stated that BAMEs provide a diverse workforce bringing diverse perspectives, experiences, talents, and opportunities while 16.7% said they bring in qualities same as everyone else. 10% opined that they bring in commitment and strength, and 3.3% controversy. 13.3% were unsure and for 6.7% they bring nothing.

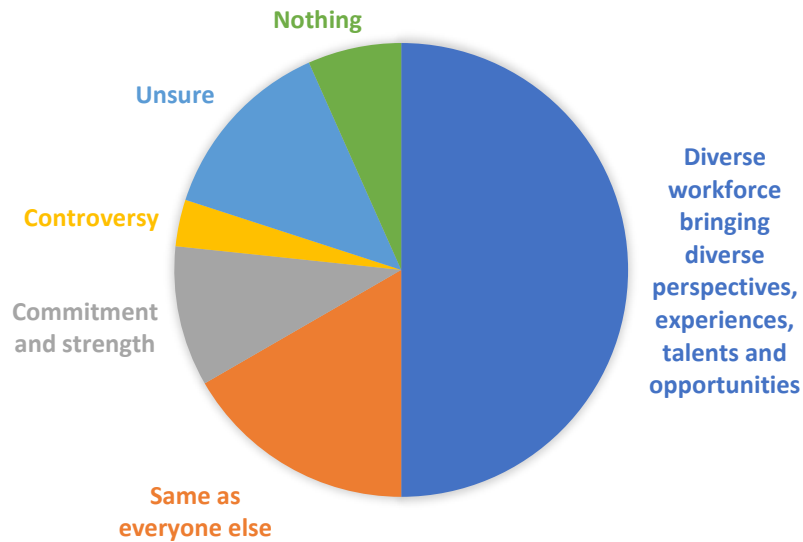


Fig 5.14 Qualities BAMEs bring to the BE industry according to respondents

5.2.2.3 Questionnaire for professional bodies

Participants from 7 BE professional bodies' educational departments or similar structures took part in the survey. They provided responses on behalf of their organisations rather than individually.

a) *Background information:* The first section presents descriptive statistics of the organisation's background. Data such as the organization's sector of the BE has been anonymized for confidentiality purposes and so the organisations would simply be addressed as professional body1, professional body2 and so forth. The results show that PROFBOD1 had 11.5% representation, 11.5% were from PROFBOD2, 23.1% PROFBOD3, 15.4% PROFBOD4, 11.5% PROFBOD5, 19.2% PROFBOD6 and 7.7% from PROFBOD7.

(i) *importance of degree classification for membership:* Respondents were asked to what extent degree classification is a factor for the admission of members into their professional body. The analysis (see Fig 5.15) shows some striking variations for example, for professional body 2 it is clearly important while for professional body 3, it is largely unimportant. For professional body1, there was a mixture of uncertainty and importance.

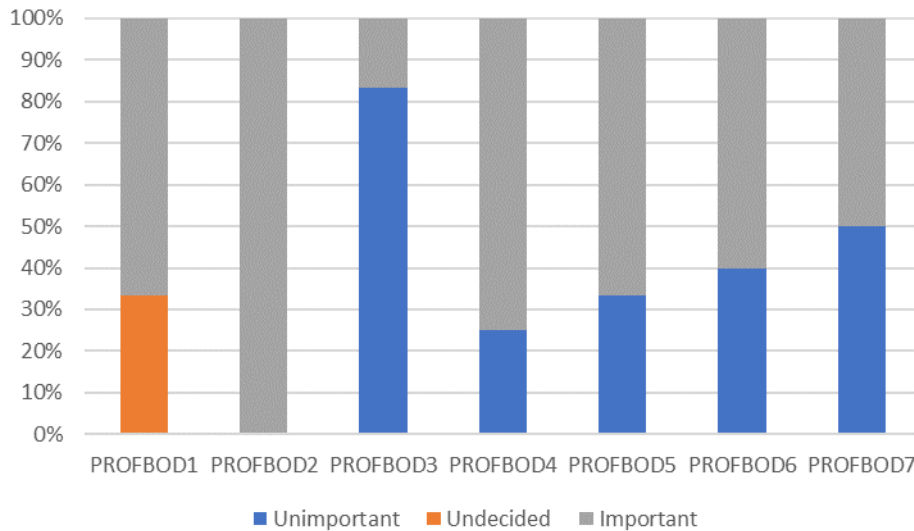


Fig 5. 15 Importance of degree classification for membership

(ii) *Percentage of BAME membership*: Participants were asked to estimate the percentage of their organisation’s membership who are BAME using the following ranges: 0 -10%, 10 – 20%, 20 – 30%, 30 – 40%, above 40% and not sure. Almost all (92.3%) stated that they had BAME membership of between 0-10% while 7.7% had BAME membership between 11-20%. There were no responses for the other categories.

b) *The DAG*: The second part of the questionnaire investigated the knowledge of the DAG and its effects among students and this section presents the responses of the participants.

(i) *Awareness and understanding of the DAG*: From the findings, most respondents were aware of the DAG (73.1%) and only 26.9% were unaware. Respondents were further asked to describe how much knowledge they had and the findings are shown in Table 5.39. The table shows that while 31.6% knew quite a lot about the gap, 68% knew very little about it.

Table 5.39 Respondents knowledge of the DAG

Professional body	A little (%)	A lot (%)	Total (%)
PROFBOD1	5.3	0.0	5.3
PROFBOD2	5.3	5.3	10.5
PROFBOD3	15.8	0.0	15.8
PROFBOD4	15.8	5.3	21.1
PROFBOD5	5.3	5.3	10.5
PROFBOD6	10.5	15.8	26.3
PROFBOD7	10.5	0.0	10.5
Total	68.4	31.6	100

(ii) *Factorial explanations for the DAG*: This next section presents descriptive and inferential statistics of findings about factorial explanations for the DAG. It will also compare variables and test for correlation between respondents from the 7 professional bodies. A list of 14 factors that could explain the DAG were presented and respondents asked to rank them on a five-point scale: strongly disagree, disagree, undecided, agree and strongly agree. Aggregate means for all the responses are presented in Table 5.40 and show that the explanation most true for respondents are opportunities for work placements, and this was followed by the socio-economic factors. Less respondents agreed that mode of study and entry qualifications explained the gap.

Table 5.40 Aggregate means for factorial explanations of the DAG

Factorial explanations of DAG	Mean value
Work placement opportunities	4.31
Socio-economic factors	4.23
Sense of belonging	4.19
Conscious or unconscious bias/racism	4.19
Institutional culture	4.08
Role models and mentoring	4.00
Relationships with teachers and peers	3.54
Student support services	3.42
Curriculum content and design	3.38
Course of study	3.15
Teaching, learning and assessment	3.04
Age	2.96
Entry qualifications	2.92
Mode of study	2.38

To ascertain whether there is a correlation between participants' organisations and their perceptions of factors that might explain the DAG, the study next compared participant responses based on their organisations. The ranking of the aggregate means for the sample was superimposed on the rankings of the mean values for each professional body in descending order. This is depicted in Table 5.41 and shows some similarity in the perceptions of the different professional bodies about the explanation for the DAG. In some instances, there is a major deviation from the aggregate mean by an organisation as in entry requirement being a cause of the DAG in which case the aggregate mean rank was 13 but for ORG7, it was 3.5.

Table 5.41 Cross-tabulation of the ranking of mean values based on organisation

Factors	Aggregate	ORG1	ORG2	ORG3	ORG4	ORG5	ORG6	ORG7
Work placement opportunities	1	1.5	3.5	1.5	2.5	4.5	1.5	3.5
Socio-economic factors	2	4.5	3.5	3.5	1	2.5	3	3.5
Sense of belonging	3.5	1.5	1.5	1.5	6	4.5	6.5	1.5
Conscious or unconscious bias/racism	3.5	4.5	8.5	6	2.5	2.5	1.5	1.5
Institutional culture	5	1.5	8.5	3.5	4.5	4.5	4.5	3.5
Role models and mentoring	6	7.5	1.5	7.5	4.5	1	4.5	8.5
Relationships with teachers and peers	7	7.5	11.5	3.33	7.5	4.5	6.5	8.5
Student support services	8	4.5	3.5	7.5	9	10.5	12.5	8.5
Curriculum content and design	9	7.5	11.5	3.5	13.5	8.5	10.5	11.5
Course of study	10	12.5	3.5	11.5	7.5	10.5	8.5	3.5
Teaching, learning and assessment	11	10.5	7	10	10.5	8.5	12.5	11.5
Age	12	10.5	8.5	11.5	10.5	10.5	10.5	11.5
Entry qualifications	13	12.5	11.5	13.5	10.5	10.5	8.5	3.5
Mode of study	14	12.5	11.5	13.5	13.5	10.5	14	14

The basis for respondents' views on factorial explanations for the DAG was further explored using the Kruskal Wallis Test in Excel to see if the organisations differ in their perceptions. The test showed a H statistic value of 6.08 (6 df, $p < 0.05$), Chi-Square value of 12.59, and the critical value (p -value) of 0.415. The H value is less than the Chi-Square value so the H_0 hypothesis of the means being the same cannot be rejected. This means that there is not

enough evidence to suggest that the individual means of the organisations are unequal. The organisations' perceptions of the factorial explanations for the DAG are concluded as being similar.

(iii) *Intervention by HEIs to eliminate the DAG faster:* The respondents were asked an open-ended question about what they thought HEIs should be doing to make better progress in closing the DAG. Fig 5.16 shows the visual presentation of their responses (ensuring equity and justice, better support for placements, more diverse workforce and so on) which were first categorised to reduce the number and avoid repetition.

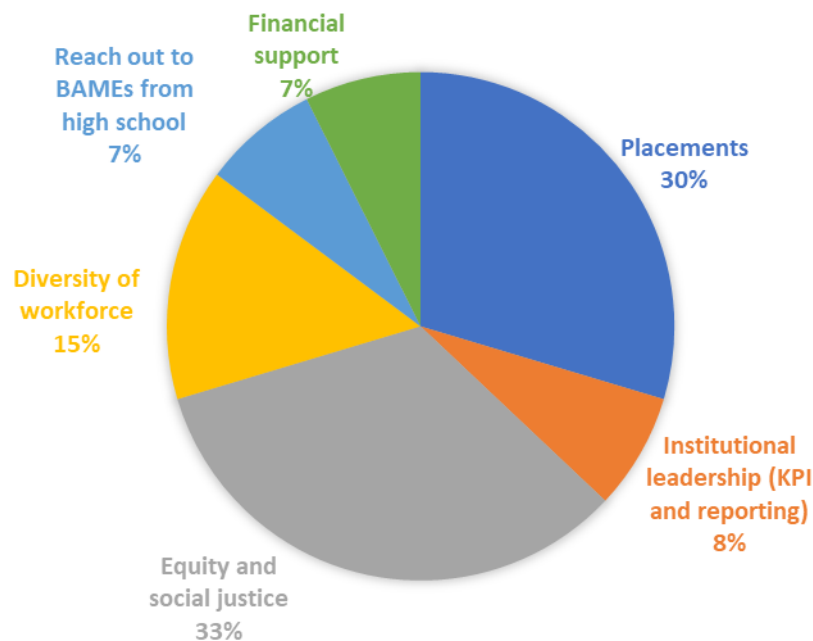


Fig 5.16 Respondents' perceptions of important interventions by HEIs to close the DAG

From the responses, most respondents felt that matters about equity and social justice were very important, and this was followed by placements for students. Fewer numbers thought that financial support and reaching out to BAMEs from high school were important.

(iv) *Assistance from professional bodies to HEIs in addressing the gap:* Next the participants were asked what role professional bodies like theirs could play in assisting HEIs to address the gap. Once more, this was an open-ended question to provide for a deeper level of insight by allowing participants to respond freely.

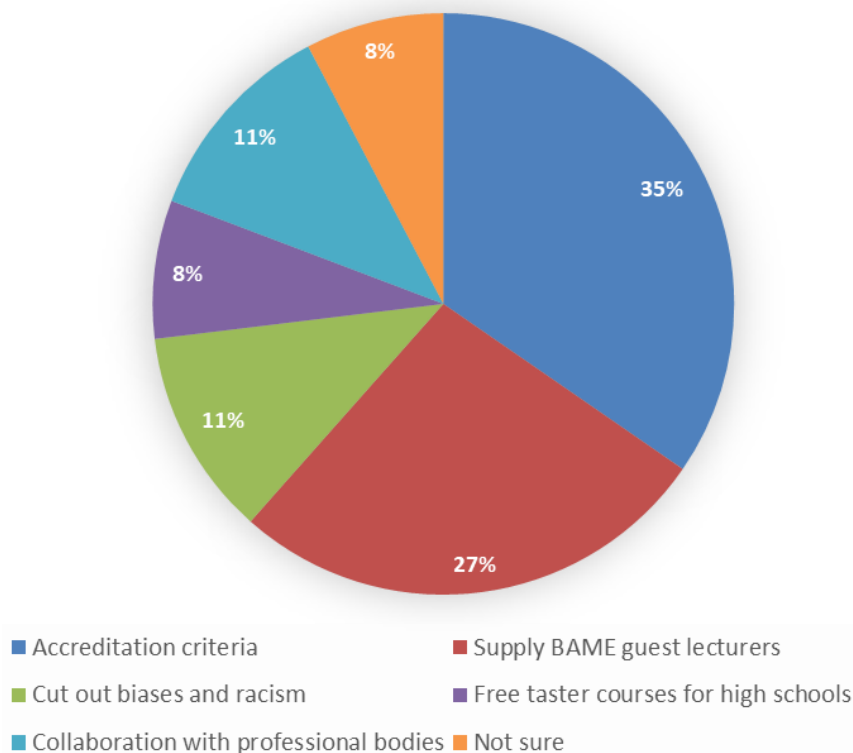


Fig 5.17 Assistance professional bodies can provide to HEIs to close the DAG

Responses were put into 6 categories as is shown in Fig 5.17. A greater percentage 35% felt that the organisations can help by making the elimination of the gap one of the criteria for the accreditation of BE courses. A further 27% said the organisations could supply BAME guest lecturers to HEIs especially where they are not ‘visible.’

(v) *Criteria for accrediting BE courses and measures to hold HEIs accountable for closing the DAG:* The researcher also sought to know if the organisations had criteria in place for accrediting BE courses and if any was related to the closure of the DAG. Additionally, did the organisations have any measures in place to hold HEIs accountable to closing the gap?

Table 5.42 Cross tabulation of criteria for accreditation and accountability

Criteria for evaluating HE courses?	
Yes	100%
No	0%
Criteria related to DAG?	
Yes	3.8%
No	96.5%
Measures for holding HEIs accountable for closing the DAG	
Around EDI	7.7%
Removal of accreditation	3.8%
Policy statements	3.8%
None	50%
Not sure	34.7%

Table 5.42 indicates that 50% of the respondents stated that their professional bodies do not have measures to hold HEIs accountable for eliminating the gap while 34% were unsure of any measures in place. Furthermore, although 100% of the organisations had accreditation criteria only 3.8% had any related to the DAG.

c) BAMEs and BE professional bodies: Some concerns regarding BAME membership in professional bodies were examined in this section of the questionnaire.

(i) *Membership*: Respondents were given a list of nine statements about BAMEs and professional body membership, and they were asked to evaluate their agreement with each one on a scale of strongly disagree, disagree, disagree, undecided, agree, and strongly agree. The distribution of respondents is shown in Table 5.43 and shows the statement most agreeable to respondents is that BAMEs are able to access Continuing Professional Development (CPDs), and this was followed by the acknowledgement that there is a lack of BAME representation in the organisational structure. All respondents disagreed that BAMEs face barriers to full chartered membership and 65.4% were unsure whether membership fees discourage BAMEs from becoming members.

Table 5.43 Aggregate means for BAMEs and membership of professional bodies

BAMEs and membership of professional bodies	Mean value
BAMEs are able to access Continuing Professional Development (CPDs)	4.23
There is a lack of BAME representation in the organisational structure	4.08
BAMEs are less likely to become members	3.92
Mentorship and information for membership are widely available to BAMEs	3.81
BAMEs are grossly underrepresented	3.62
BAME progression rate from membership to fellowship is very low	3.62
Racism and unconscious bias are taken seriously	3.50
Membership fees discourage BAMEs	2.77
BAMEs face barriers to full chartered membership	1.73

After that, the results were examined to see if there were any disparities based on the participants' organisations. The ranking of the aggregate means for the sample was superimposed on the rankings of the mean values for each professional body in descending order. The perceptions of the various professional bodies regarding BAMEs and their membership of professional bodies are depicted in Table 5.44 and demonstrate considerable similarities.

Table 5.44 Cross-tabulation of the ranking of mean values based on organisation

Statements	Aggregate	ORG1	ORG2	ORG3	ORG4	ORG5	ORG6	ORG7
BAMEs are able to access Continuing Professional Development (CPDs)	1	1	1.5	1	1.5	4.5	2.5	5
There is a lack of BAME representation in the organisational structure	2	2.5	1.5	3.5	3.5	2.5	1	6
BAMEs are less likely to become members	3.5	5.5	1.5	3.5	5	1	2.5	1.5
Mentorship and information for membership are widely available to BAMEs	3.5	2.5	1.5	7	1.5	7.5	2.5	1.5
BAMEs are grossly underrepresented	5	2.5	7.5	2	6	2.5	6.5	8
BAME progression rate from membership to fellowship is very low	6	5.5	5.5	5	7	4.5	5	1.5
Racism and unconscious bias are taken seriously	7	7	5.5	6	3.5	4.5	6.5	1.5
Membership fees discourage BAMEs	8	8	7.5	8	8	7.5	8	7
BAMEs face barriers to full chartered membership	9	9	9	9	9	9	9	9

The aforementioned finding using the means was further explored using the Kruskal Wallis Test in Excel. The test showed a H statistic value of 4.58 (6 df, $p < 0.05$), Chi-Square value of 12.59, and the critical value (p -value) of 0.598. The H value is less than the Chi-Square value so the H_0 hypothesis of the means being the same cannot be rejected. This means that there is not enough evidence to suggest that the individual means of the organisations are unequal. The organisations' views about BAMEs and membership of BE professional bodies based on the provided statements are concluded as being similar.

(ii) *BAME underrepresentation in the BE industry:* The next question in the questionnaire sought the professional organisations' opinions on the potential barriers causing the gross underrepresentation of BAMEs in the BE industry, which was discussed in the literature review chapter. The questionnaire listed fifteen potential barriers, and respondents were asked to rate their agreement with each one on a scale from strongly disagree to strongly agree. The distribution of respondents is shown in Table 5.45. All the organisations except for ORG1 and ORG3 agreed that the major barrier causing the underrepresentation of BAMEs in the industry was the non-implementation of equality and diversity policies. Additionally, all the organisations disagreed that not having necessary qualifications was a barrier for BAMEs. It is noteworthy that though there is good similarity among the groups, in some instances, one or two groups could differ greatly from the other groups for example, while most organisations ranked unconscious/implicit bias highly as a barrier, ORG2 and ORG3 ranked it much lower.

Table 5.45 Cross-tabulation of the ranking of mean values based on organisation

Barriers	Aggregate	ORG1	ORG2	ORG3	ORG4	ORG5	ORG6	ORG7
Non-implementation of equality and diversity policies	1	9.5	1.5	9	1	1.5	1	1.5
Perceived hostile environment	2	1.5	9.5	4.5	2.5	1.5	2.5	1.5
Unconscious/implicit bias	3	1.5	9.5	7.5	2.5	1.5	2.5	1.5
Restricted opportunities for BAMEs	4.5	1.5	9.5	7.5	6.5	1.5	2.5	5.5
Lack of work experience placements at school	4.5	1.5	4.5	1.5	2.5	5.5	6.5	9.5
Senior management's lack of commitment to a diverse workforce	6	1.5	1.5	4.5	6.5	5.5	6.5	9.5
Limited knowledge among BAME communities of opportunities	7	1.5	4.5	1.5	2.5	12.5	11.5	9.5
Image of the industry	8	1.5	1.5	4.5	10.5	12.5	11.5	5.5
Racial discrimination	9	9.5	9.5	11.5	6.5	5.5	6.5	1.5
Recruitment procedures e.g. the use of word-of-mouth	10.5	9.5	4.5	1.5	10.5	10.5	14	9.5
BAMEs having to work harder than their White counterparts to be recognised	10.5	1.5	13.5	10	6.5	5.5	6.5	13
Systemic barriers to BAME progression	12	9.5	4.5	13	13.5	5.5	6.5	5.5
Relevant experience	13	14	4.5	14	10.5	10.5	2.5	5.5
Training and development opportunities	14	9.5	13.5	11.5	13.5	12.5	11.5	14
Necessary qualifications	15	15	15	15	15	15	15	15

Using the Kruskal Wallis Test, the result was further investigated. The test showed a H statistic value of 11.32 (6 df, $p < 0.05$), Chi-Square value of 12.59, and the critical value (p -value) of 0.078. The H value is less than the Chi-Square value so the H_0 hypothesis of the means being the same cannot be rejected. This indicates that there is not enough evidence to suggest that the individual means of the organisations are unequal. This means that the organisations' views about barriers that are possibly responsible for BAME underrepresentation in the industry are similar.

(iii) *Interventions to attract BAMEs*: This open-ended question explored respondents' opinions on the initiatives their organisations have implemented to attract BAMEs. The responses were divided into five groups and covered topics such as promoting diversity, EDI policies.

In Fig 5.18, the results show that half of the respondents' organisations had EDI policies in place while 31% were promoting diversity and 11% promoting BAME role models.

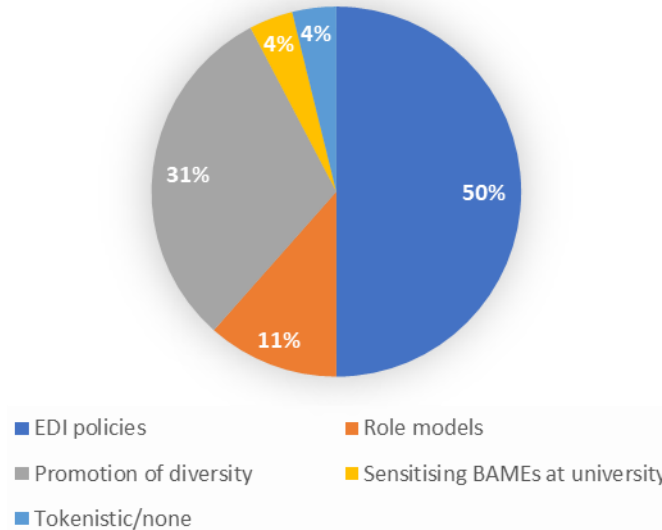


Fig 5.18 Interventions to attract BAMEs to professional bodies

Respondents were further asked how to indicate how satisfied they were with these interventions. 3.8% were very satisfied, 38.5% somewhat satisfied and 34.6% neither satisfied nor dissatisfied. Furthermore, 3.8% were somewhat dissatisfied while 19.2% were very dissatisfied.

(iv) *BAME graduates in the industry*: Following findings from literature review, the study sought to find out why most BAME graduates do not end up in the industry. Responding to an open-ended question, respondents gave several factorial explanations which has been broadly categorised and illustrated in Fig 5.19.

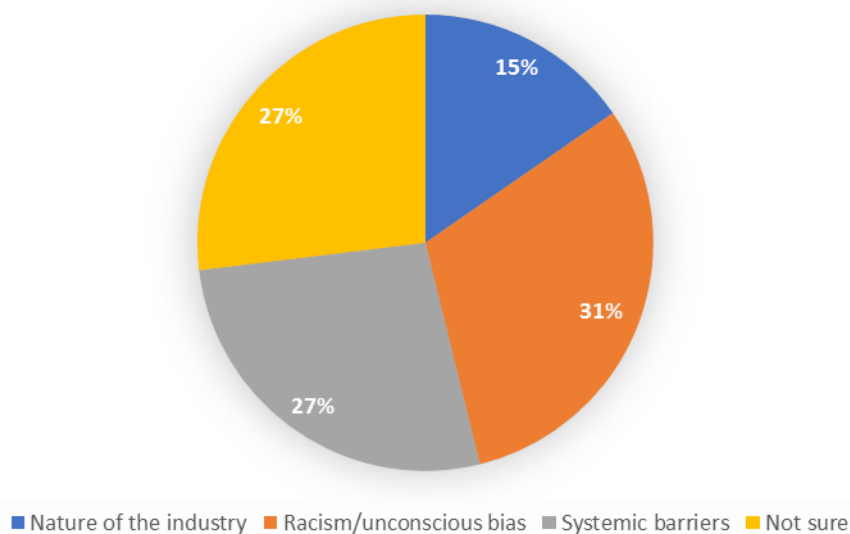


Fig 5.19 Why most BAME graduates do not end up in the industry

(v) *Benefits of BAME wider participation in the organisations:* The last question for the organisations was what good a wider participation from BAMEs would do to professional bodies. Again being an open-ended question, there several responses which were categorised into 6 groups and are presented in Fig 5.20. More than a half (53%) stated that it would ensure diversity and inclusion, 13% opined that it would more truly reflect UK demographics and 13% were not sure.

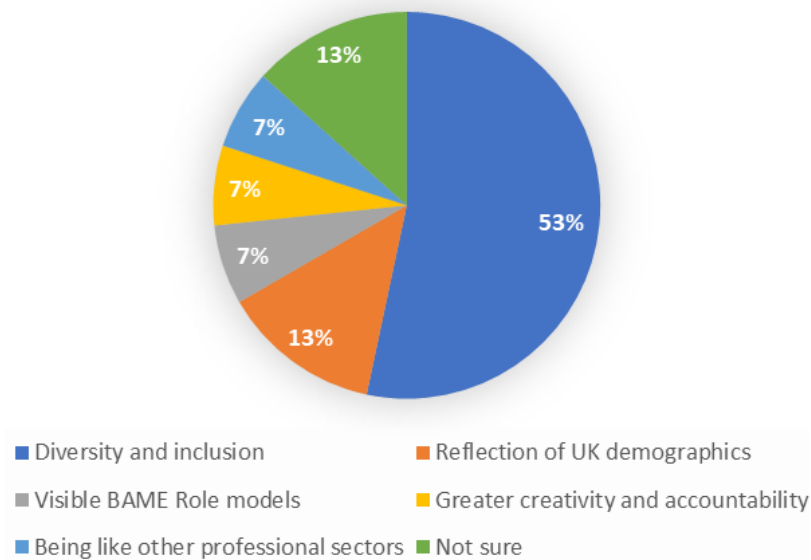


Fig 5.20 Benefits of increased membership of BAMEs in BE professional bodies

5.2.3 Triangulation of data from questionnaires

The data gathered from the three questionnaires were triangulated in this section of the thesis, specifically to categorise them by themes prior to discussion of the findings. Several themes were identified and will be presented here. The themes will also be used later to compare and integrate the findings from the MM and to interpret the results and address the objectives of the study.

5.2.3.1 Theme 1 Factors contributing to the DAG

All three questionnaires included responses about what the participants saw as being factors that contribute to the DAG. Using the ranking of aggregate mean values for these responses, some implied meaning was deduced for each group – students, academics, and professional bodies. These will then be compared to see if there is any corroboration. Table 5.46 shows the ranking and implied meaning of student responses.

Table 5.46 Students' explanations for the DAG and their implied meaning

Factors	Rank	Implied meaning
Lack of role models and mentoring	1	Changing the culture and embedding issues of race in strategic goals
Institutional culture	2	
Sense of belonging/integration	3	
Institutional racism/unconscious bias	4	Need for equity and social justice
Relationships with teachers and peers	5	
Internship placement opportunities	6	
Entry qualifications	7	Need for diverse and inclusive environments
Student support services	8	
Teaching, learning and assessment	9	
Curriculum content and design	10	

Similarly, Tables 5.47 and 5.48 present the rankings and implied meanings of responses from academics and professional bodies respectively.

Table 5.47 Academics' explanations for the DAG and their implied meaning

Factors	Rank	Implied Meaning
Sense of belonging/integration	1	Changing the culture and embedding issues of race in strategic goals
Lack of role models and mentoring	2	
Entry qualifications	3	Need for strong leadership and getting evidence through data
Institutional culture and self-delusion	4	
Retention and progression rates	5	
Internship placement opportunities	6	Need for equity and social justice
Institutional racism/unconscious bias	7.5	
Blame game	7.5	
Curriculum content and design	9	Importance of diverse and inclusive environments
Student support services	10	
Teaching, learning and assessment	11	
Inflated grades	12	

Table 5.48 Organisations' explanations for the DAG and their implied meaning

Factors	Rank	Implied meaning
Work placement opportunities	1	Need for equity and social justice
Socio-economic factors	2	
Sense of belonging	3.5	Changing the culture and embedding issues of race in strategic goals
Conscious or unconscious bias/racism	3.5	
Institutional culture	5	
Role models and mentoring	6	
Relationships with teachers and peers	7	
Student support services	8	Importance of diverse and inclusive environments
Curriculum content and design	9	
Course of study	10	
Teaching, learning and assessment	11	
Age	12	Deficit modelling
Entry qualifications	13	
Mode of study	14	

From the above tables, all three groups' responses indicate the need for

- Changing the institutional culture and embedding issues of race in strategic goals
- Equity and social justice
- Diverse and inclusive environments which will be orchestrated by strong leadership that gets evidence through data and avoids deficit modelling.

5.2.3.2 Theme 2: Effective interventions

This section compares the responses from the three groups again to seek for corroboration or divergence. The most effective interventions among the five listed interventions employed by institutions to close the DAG as ranked by the students who responded, are a diverse workforce, mentoring, and listening to student voice. Inclusive curriculum came in second on the students' list of less successful interventions, while the Value added score (VAS), which Kingston University popularised was ranked as the least effective.

Mentoring was found to be the most effective of the five interventions by HEIs according to academics' ranking, followed by a diverse workforce and listening to the student voice. Except for the order of mentoring and diverse workforce being switched as first and second, this is congruent with the students' viewpoint. Once more, the VAS was ranked as the least effective, followed by an inclusive curriculum.

While the professional bodies were not asked to rank the five interventions, they were asked to give what they thought as most important interventions HEIs should be applying. Most respondents opined that placements are a priority. This was followed by interventions

bothering on equity and justice in all practices. A diverse workforce was next which had a high ranking for the students and academics.

5.2.3.3 Theme 3: Learning environments

The responses of student and academic participants, who function within the learning environments, are compared in this section. Majority of the students saw their learning environments as being positive which meant that they found it friendly, welcoming, supportive, positively challenging and the like. This is consistent with the views of the academics. However, while none of the academics saw their learning environments as being negative, a few of the student respondents felt their environment was negative (racist, cliquey, daunting or hostile). A good number of respondents from both groups (20% students and 10% academics) were unsure how to describe their environments.

Furthermore, these two groups of participants ranked some statements about their learning environments on a five-point scale from strongly disagree to strongly agree. Even though the statements weren't exactly the same for both groups (since the groups aren't identical), they nevertheless give insight to the concerns surrounding the phenomenon being investigated, the DAG. Using the ranking of aggregate mean values for these responses, some implied meaning was deduced for each group. These will then be compared to see if there is any corroboration. Table 5.49 shows the ranking and implied meaning of students' responses.

Table 5.49 Implied meaning of students' responses about their HEI

Statements	Rank	Implied meaning
Assessment methods are fair	1	Inclusive learning environment
My contributions in class are valued	2	
Sufficient academic support	3	
Good student support services	4	
Contact with tutors	5	
Role models/mentors	6	Equity and social justice
Inclusive learning and teaching	7	
Sense of belonging/integration	8.5	
Placement opportunities	8.5	
Decolonisation of curriculum	10	
Negative expectation from staff and peers	11	
Microaggressions	12	
Racism/unconscious bias	13	

From the table, statements indicating an inclusivity in the learning environment were ranked highest by the students. The second part of the table, revolved around equity and social justice with more students ranking mentoring, inclusive learning and teaching, a sense of belonging

and placement opportunities more highly than decolonisation of curriculum, negative expectations, microaggression and racism/bias.

Table 5.50 presents the ranking of the aggregate mean values of academics' responses and their implied meaning.

Table 5.50 Implied meaning of academics' responses about their HEI

Statements about university	Rank	Implied meaning
Assessment methods are fair	1	Inclusive learning environment
The attainment gap has social justice implications for the Built Environment and HE	2	
Learning and teaching are inclusive	3.5	
Senior management is strongly committed to closing the attainment gap	3.5	Strong leadership
There is sufficient academic support for students	5	
Closing the gap should be a top priority	6	
Positive action would be effective in addressing inequalities	7	
Staff are committed to improving learning and closing the attainment gap	8.5	
BAMEs are involved in decision-making processes for institutional and sector-wide issues	8.5	
Bias/institutional racism starts early	10.5	Equity, inclusivity and social justice
Policies on diversity and equality are well implemented	10.5	
Incidents of racism are adequately handled	12	
Effective unconscious bias training is in place	13	
There is credible ethnic diversity at the senior positions	14	
BAMEs value role models/mentors more than other ethnic groups	15.5	
Number of BME staff reflects the proportion of BAME students	15.5	
Microaggressions are overlooked	17	
BAMEs in academia find it very difficult to progress in their career as a result of systemic barriers	18	
There is enough information about the gap	19	Poor knowledge or awareness
Staff have a good understanding of the DAG	20	

In corroboration with the student respondents, the top of the ranking by the academics indicate that inclusivity is vital in learning environments. The importance of strong leadership is revealed in the next set of statements which are for academics. This is followed by statements that have equity and social justice implications and both groups disagreed with racism and microaggressions as having much bearing to their learning environment. The academic respondents also mostly disagreed that there is enough information about the DAG and that staff have a good understanding of the DAG.

5.2.3.4 Theme 4: BAMEs and the BE industry

Responses from the academic participants and the professional bodies were examined and the ranking of aggregate mean values for questions relating to BAMEs in the BE industry, was used to show some implied meanings for the two groups. Table 5.51 shows the ranking and implied meaning of the responses from the academics about BAMEs and the industry.

Table 5.51 Academics responses about BAMEs and the BE industry

The BE industry	Rank	Implied meaning
Informal associations aid progression	1	Lack of diversity and inclusivity
BAMEs are grossly underrepresented	2	
BAMEs face employment barriers	3	
BAME progression is very slow	4	
Retention of BAMEs is improving	5.5	Progress
A 'good' degree is essential for senior management	5.5	Glass ceiling in the industry
BAMEs have good training opportunities	7	Equity and social justice
Information dissemination is just and fair	8	
Many BAMEs are at senior management levels	9	
Racism/unconscious bias is properly addressed	10	
BAMEs lack necessary skills and qualifications	11	

According to the information in the table above, there is a lack of diversity and inclusivity in the BE industry, which is demonstrated for example, by the underrepresentation of BAMEs, barriers to employment and slow rate of progression. There has been some improvement in the retention of BAMEs, as indicated by the respondents, but a good proportion agree that there is a glass ceiling in the industry. The last set of statements about the industry are related to equity and social justice. Respondents mostly disagreed that BAMEs lack necessary skills and qualifications and that racism/bias is properly addressed.

Table 5.52 Organisations' responses about BAMEs and the BE industry

BAMEs and the BE industry	Rank	Implied meaning
Non-implementation of equality and diversity policies	1	Non-inclusive environment
Perceived hostile environment	2	
Unconscious/implicit bias	3	
Restricted opportunities for BAMEs	4.5	
Lack of work experience placements at school	4.5	Leadership
Senior management's lack of commitment to a diverse workforce	6	
Limited knowledge among BAME communities of opportunities	7	
Image of the industry	8	
Racial discrimination	9	Equity and social justice
Recruitment procedures e.g. the use of word-of-mouth	10.5	
BAMEs having to work harder than their White counterparts to be recognised	10.5	
Systemic barriers to BAME progression	12	
Relevant experience	13	Deficit profiling
Training and development opportunities	14	
Necessary qualifications	15	

Table 5.52 demonstrates that participants from professional bodies and academic participants both agree that there is a lack of diversity in the industry. This has been noted for the academics from Table 5.51. For professional bodies, lack of inclusivity is shown by limited opportunities for BAMEs, unconscious or implicit bias and the failure to implement equality and diversity policies (Table 5.52).

Again, for matters of equity and social justice, both groups concur that there is lack of training and development opportunities for BAMEs in the industry. They also agreed that racial discrimination exists within the industry, and this is apparently not properly addressed.

Moreover, respondents from the organisations disagreed that BAMEs lack necessary qualifications, and this is congruent with responses from the academics.

Looking at the qualities BAMEs bring into the industry, overall, most respondents opined that BAMEs make the industry diverse bringing in diverse perspectives, experiences, talents, and opportunities. Some respondents on both sides were unsure of what qualities BAMEs bring in. A few academics felt that BAMEs bring controversy and nothing to the industry with regards to qualities.

5.3 Qualitative data analysis

Qualitative data are characterised by their richness through which meanings can be explored. The study as stated earlier in the research methodology has an abductive approach and so

employed both inductive and deductive approaches and combined their elements. The deductive approach allowed the analysis to start from the existing body of knowledge and provide an initial analytical framework – the use of the conceptual framework described in chapter two and used earlier in this chapter to analyse quantitative data and produce themes. The inductive approach involved the exploration of data for new themes.

This section drew on Braun and Clarke’s (2006) 6-step framework which has arguably become the most utilised framework to analyse qualitative data generated from semi-structured interviews and focus group discussions and is illustrated in Fig 5.21.

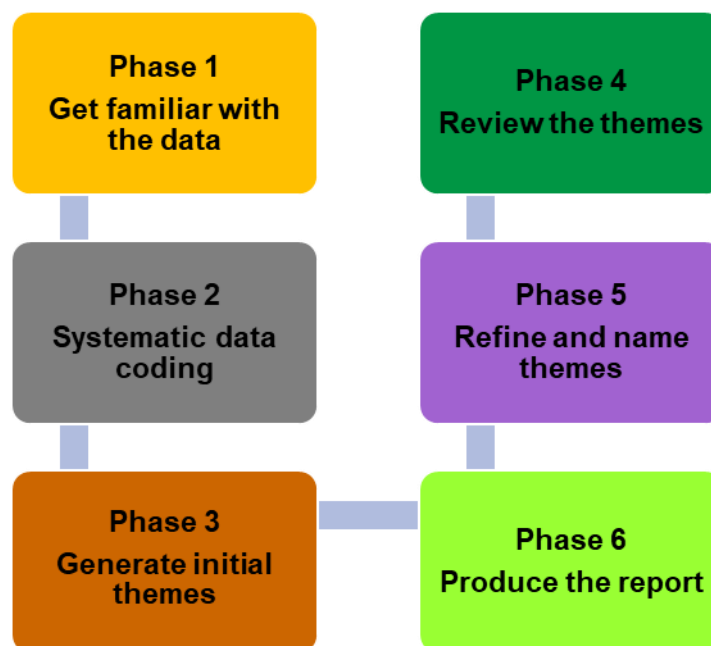


Fig 5.21 Phases of thematic analysis based on Braun and Clarke (2006)

Phase 1 involved the thorough reading of the transcribed data to get familiar with the data. Interviews and focus group discussions which were audio taped and some recorded on Teams were transcribed verbatim and had to be listened to severally and thereafter cleaned before being exported into NVivo for analysis.

At Phase 2, the systematic coding of data was done for each of the sources of qualitative data – interviews and focus group discussions. This involved identifying segments of data that were relevant to the research questions and objectives and coding them in a systematic way.

Phase 3 was about generating initial themes - grouping the data. The conceptual framework for this study emanating from a critical literature review considered recurring factors that influence degree outcomes, and these were: leadership and institutional culture, belonging

and student experience, mentoring/role models, curriculum, teaching and assessment methods and racism and biases. These factors served as the foundation for the direction of the analysis of data including the identification of themes. More themes were identified and added as the codes were grouped together.

At Phase 4, the themes were reviewed. The themes from Phase 3 were particularly long, and to reduce data, subthemes were identified within the main themes. Grouping data out into main themes and subthemes helped to make meaning-based connections between the data for better coherence.

Phase 5 involved further refining the themes and naming them in preparation for the next phase which is the writing of the report and will be carried out in chapter of this thesis.

5.3.1 Interviews

Interviews are often audio-recorded before being transcribed verbatim. For this study, almost all the interviews were done on MS Teams which was popularised during the pandemic, so this involved video recording as well and participants were free to turn off their cameras. The use of video also helped the researcher not only to capture what was said but how it was said and the body language of the interviewees.

The interviews generally lasted about one hour each. The interviews were recorded on multiple devices with the permission of the interviewees and were then transcribed using the software Otter as well manually. Because the researcher's school did not enable the transcription feature for meetings on Teams even after inquiry about it being turned on, some of the interviewees kindly provided a copy of the transcript for their interview sessions to the researcher. Transcription errors were corrected while data cleaning.

5.3.1.1 Interviews outline

There were two sets of interviews conducted to get a deeper understanding of the DAG in the BE. One set of interviews involved the heads of BE divisions/departments or faculties or their nominated representative from purposively selected HEIs. A total number of 13 interviews were conducted individually for this first set. For the second set of interviews, a select group of 3 experts in the DAG discourse including someone from beyond the BE but within HE, were individually interviewed. Questions used were carefully framed to cover related research questions for the study. A copy of the interview questions is included in the appendix.

5.3.1.2 Analysis of interviews based on themes

This section presents the analyses of the findings for the two sets of interviews conducted based on themes. As noted earlier in section 5.3, there emerged a number of themes and

subthemes which were classified into high level, mid-level and low-level themes and show the relationships between them.

5.3.1.2.1 Heads of department/faculty interviews

Table 5.53 shows the thematic framework developed from the analysis of data from the interviews using NVivo 12.

Table 5.53 Thematic framework for all levels of themes from 13 interviews within the BE

Themes and sub-themes	No of Codes	No of Contributors
1 BE Sector	79	13
1.1 Culture of the industry	9	5
1.2 Barriers to BAMEs in the industry	18	6
1.3 BAME lecturers	29	12
1.4 BAME students	23	11
2 DAG	235	13
2.1 Definition	28	12
2.2 Knowledge	48	13
2.3 Classification of Degrees	10	4
2.4 COVID and DAG	22	9
2.5 Disaggregating BAMEs	19	7
2.6 Grade Inflation	31	13
2.7 OfS DAG Closure Deadline	33	12
2.8 Percentage point of DAG	44	12
3 Factorial Explanations for DAG	291	13
3.1 Access to BE courses	24	10
3.2 Belonging	22	8
3.3 Curriculum	22	9
3.4 Deficit Model	33	10
3.5 Institutional structure, culture and leadership	18	8
3.6 Lack of Support	6	5
3.7 Mentoring and Role Models	9	6
3.8 Placements	42	11
3.9 Racism and unconscious bias	43	12
3.10 Retention and progression	30	11
3.11 Teaching and assessment methods	42	11
4 Measures to close the DAG	396	13
4.1 Assessment	39	10
4.1.1 Anonymous marking	12	6
4.1.2 Exams vs Coursework	16	5
4.1.3 General methods	11	5
4.2 Evaluation of interventions	35	12
4.3 Institutional leadership	74	13
4.3.1 BAME lecturers and role models	16	6
4.3.2 Disaggregation of BAME Students	23	11
4.3.3 Strong leadership	35	11
4.4 Learning environment	84	11
4.3.1 Blended learning	5	3
4.3.2 Collaborative and active learning	4	1
4.3.3 Decolonisation of curriculum	51	11

4.3.4 Engagement with the BE industry for BAMEs	4	2
4.3.5 Mentoring	15	7
4.3.6 Safe Space	5	4
4.5 Placements	17	9
4.6 Race conversations	9	3
4.7 Student voice	14	5
4.8 Support	30	9
4.9 Unconscious bias – understanding and training	37	11
4.10 Challenges or barriers to implementing measures	57	13
Overall	1001	13

The 13 interviews produced a total of 1001 codes categorised into 4 main themes: BE sector (Theme 1), DAG (Theme 2), Factorial explanations for the DAG (Theme 3) and Measures to close the DAG (Theme 4). Theme 4 had the highest number of codes (396) followed by Theme 3 (291), then Theme 2 (235) and lastly Theme 1(79).

a) Theme 1: BE sector

The BE sector (industry and HE) was looked at under this theme. Participants’ responses relating to the culture of the BE industry, barriers to BAMEs in the industry and representations of BAMEs among lecturers and BAMEs among students were categorised under this theme and so formed the subthemes. Representation of BAMES among lecturers and students had the highest references by almost all the interviewees while the culture of the industry received the lowest references by the lowest number of interviewees. Barriers to BAME representation in the industry received a moderate number of responses from about half of the interviewees. This distribution is illustrated in Fig 5.22.

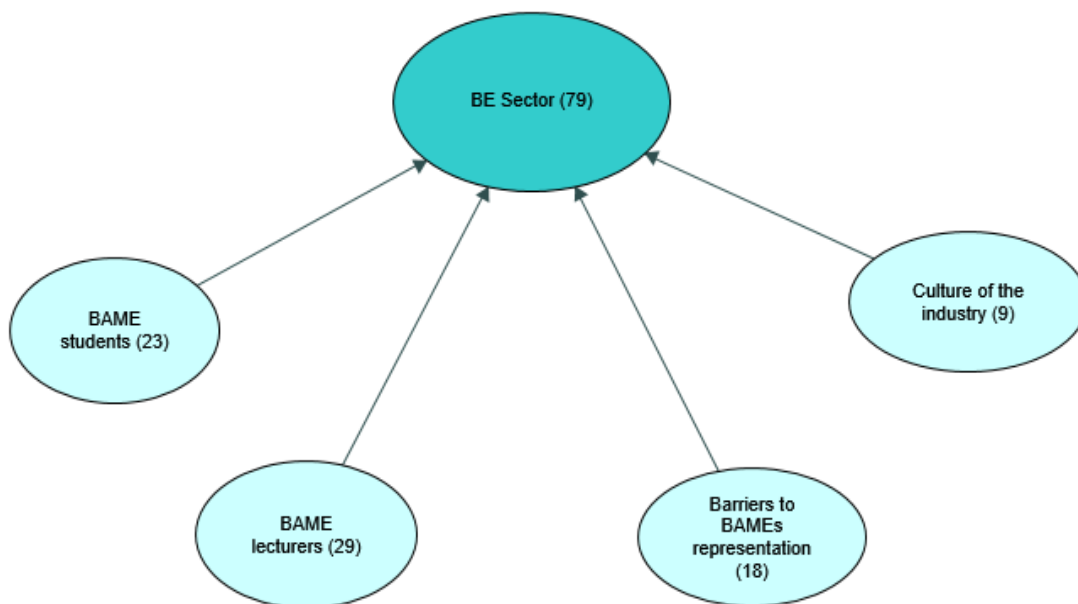


Fig 5.22 Structure of the codes for the BE sector

b) Theme 2: DAG

A graphical presentation of Theme 2 is shown in Fig 5.23 and gives details of the participants' views on the definition of the DAG and how much is known about it in their sector. Other related subthemes include the classification of degrees, COVID and the Dag, disaggregation of BAMEs, grade inflation, OfS' DAG closure deadline and percentage point of the DAG in their department or school.

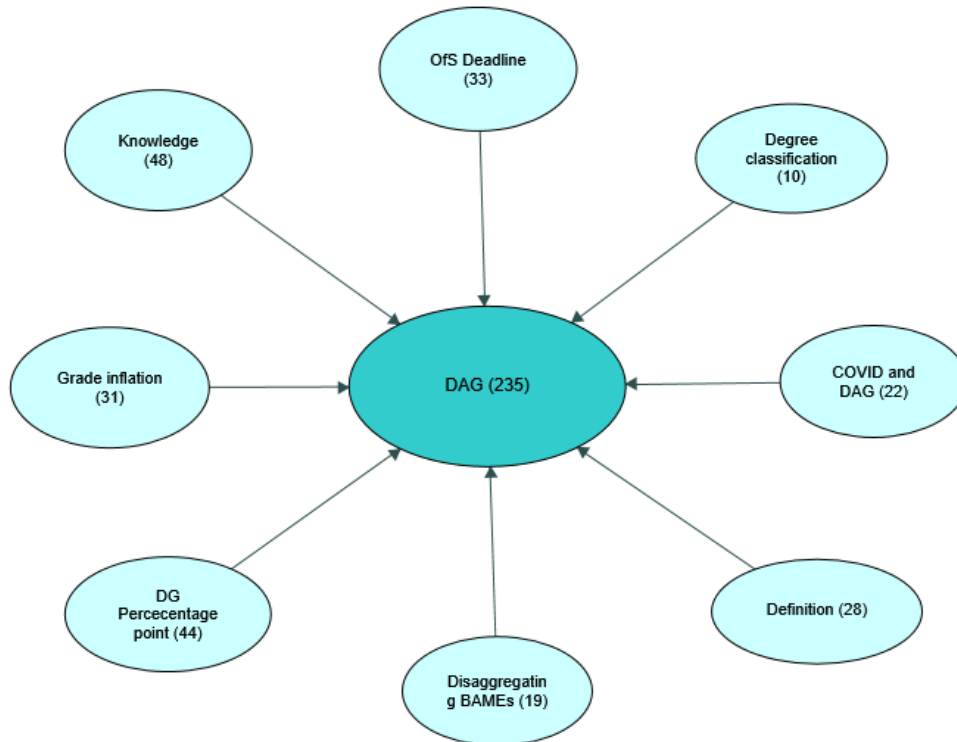


Fig 5.23 Structure of the codes for DAG

The subthemes knowledge and percentage of DAG had the highest number of references (48 and 44 respectively) from the participants for the theme DAG and this implies that they are significant when discussing about the gap. Classification of degrees which dealt with the system of g=degree classification had the least the number of references perhaps signifying that this system was not a very major issue.

c) Theme 3: Factorial explanations for the DAG

This theme had the second largest number of references among the four themes, and this is not surprising considering that this is one of the major points in the quest to close the gap. Of the 11 subthemes, racism, placements and teaching and assessment methods had the highest references (43, 42 and 42 respectively). Lack of support and mentoring/role models had the

least references (6 and 9 respectively). Fig 5.24 is an illustration of the references for this subtheme.

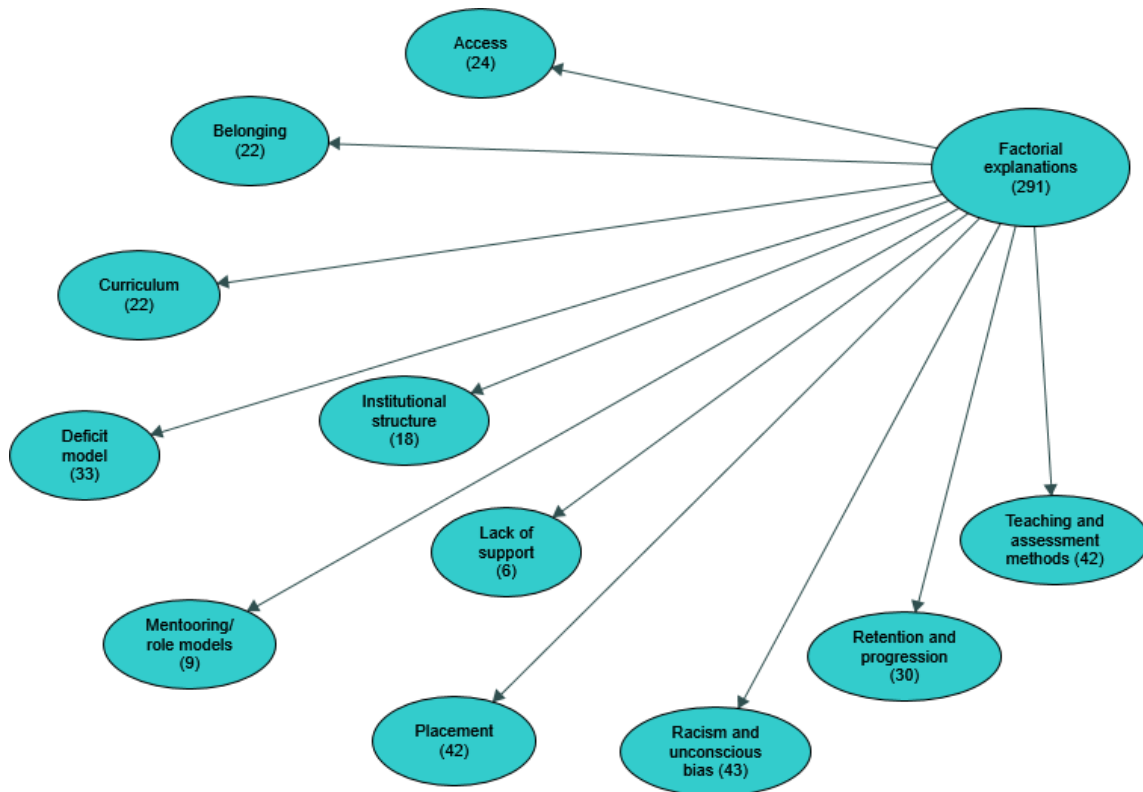


Fig 5.24 Structure of the codes for factorial explanations of the DAG based on interviews

d) Theme 4: Measures to close the DAG

It can be observed from Table 5.53 that measures to close the DAG had the highest number of references (396) signifying the importance of the closure in the views of the 13 participants and the fact that they had a lot to say about it. It also has subthemes further classified at mid and low levels. This theme is very significant as it is the major focus of this study and similar studies. Fig 5.25 shows the graphical illustration for this theme.

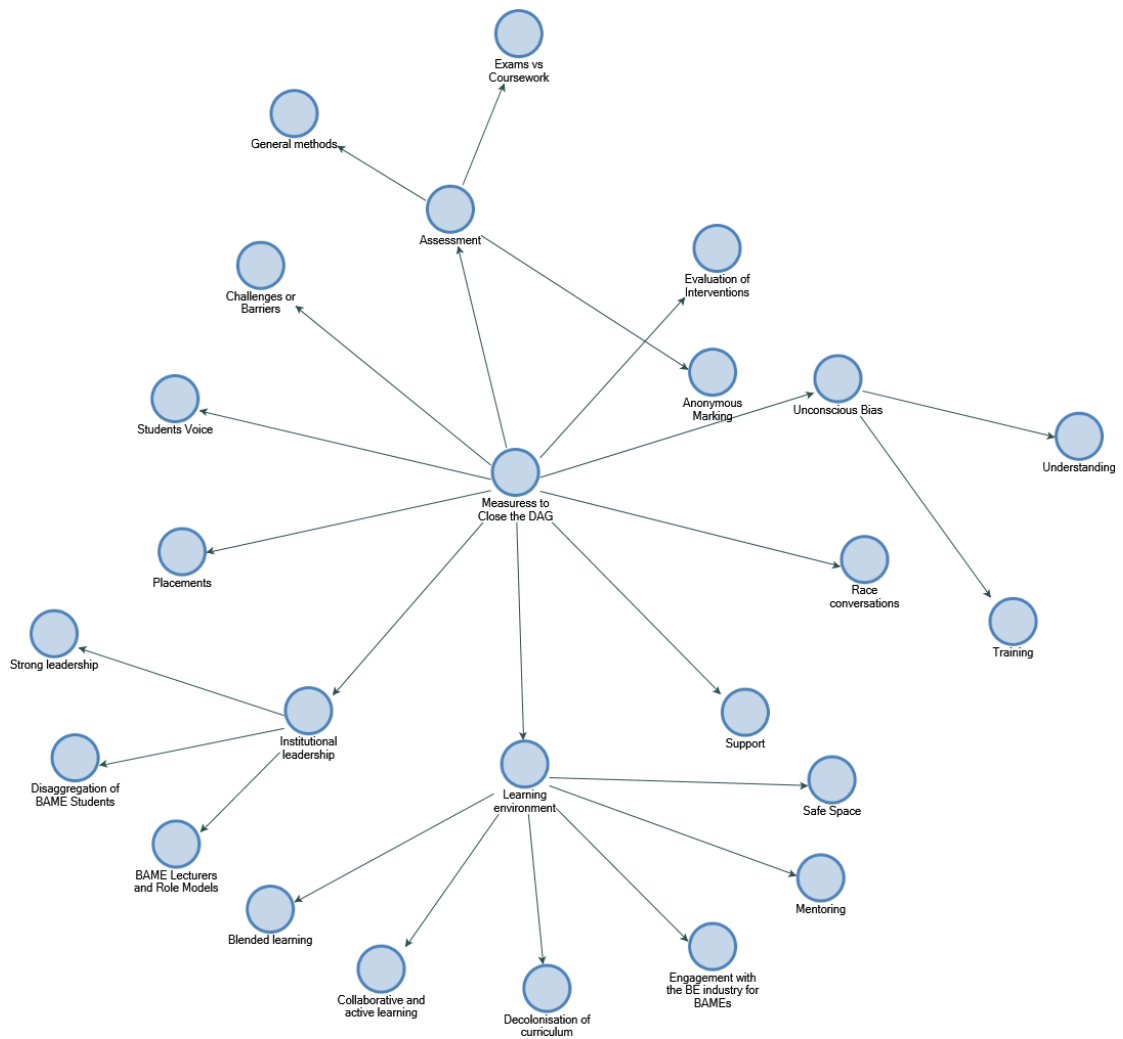


Fig 5.25 Structure of the codes for measures to close the DAG according to BE leadership

5.3.1.2.2 Experts interviews

Table 5.54 shows the thematic framework developed from the analysis of data from the expert interviews using NVivo 12.

Table 5.54 Thematic framework for all levels of themes from 3 expert interviews

Themes and sub-themes	No of Codes	No of Contributors
1 Acronym BAME	3	2
2 BE Sector	14	3
2.1 BAMEs in the BE industry	2	2
2.2 Barriers to BAMEs in the industry	12	3
3 DAG	15	3
3.1 Definition	6	3
3.2 Knowledge	3	1
3.3 Classification of Degrees	1	1
3.4 Grade Inflation	5	3
4 Factorial Explanations for DAG	40	3
4.1 Belonging	2	1
4.2 Curriculum	4	3
4.3 Deficit model	1	1
4.4 Institutional culture and leadership	3	1
4.5 Not listening to student voice	2	1
4.6 Inequitable learning environment	4	3
4.7 Racism and unconscious bias	17	3
4.8 Retention and progression	1	1
4.9 Teaching and assessment methods	6	3
5 Measures to close the DAG	41	3
5.1 Academic staff	10	3
5.1.1 Teaching and assessment	8	3
5.1.2 Unconscious bias training	2	2
5.2 Decolonisation of the curriculum	14	3
5.3 Strong leadership	12	3
5.3.1 Criterion for staff CPD for staff	1	1
5.3.2 Diverse workforce	1	1
5.3.3 Learning environment	3	2
5.3.4 Making it a KPI	1	1
5.3.5 Organisational culture	5	3
5.3.6 Safe spaces	1	1
5.4 Placements	2	2
5.5 Race conversations	1	1
5.6 Value added score	2	1
Overall	113	3

The 3 interviews produced a total of 113 codes categorised into 5 main themes: Acronym BAME (Theme 1), BE sector (Theme 2), DAG (Theme 3), Factorial explanations for the DAG (Theme 4) and Measures to close the DAG (Theme 5). Theme 5 had the highest number of codes (41) followed by Theme 4 (40), Theme 3 (15), Theme 2(14) and lastly Theme 1(3).

a) Theme 1: Acronym BAME

The acronym BAME has been a major cause of ‘debate’ in recent times, and it was not unexpected that this came up in the interviews. Although it was mentioned by 2 contributors about 3 times, this was nevertheless classified as a theme because of its significance in the

discourse of the phenomenon DAG. The contributors had a lot to say particularly in illustrating the use of the term.

b) Theme 2: BE sector

The BE industry was looked at under this theme. Participants' responses relating to BAMEs in the industry and barriers to BAMEs getting into the were categorised and formed the subthemes. The barriers encountered by BAMES had a high number of references (15) from all 3 interviewees while BAMEs in the industry received the 2 references by 2 interviewees.

c) Theme 3: DAG

Table 5.54 depicts the number of references to participants' views regarding the definition of the DAG and how much is known about it. Other related subthemes include the classification of degrees and grade inflation. These have been categorised as Theme 2. The 3 participants expressed their perspectives on what the DAG is, and this was referenced 6 times. They had the least to say about the system of degree classification as only one interviewee mentioned it. This is understandable as questions in a semi-structure interview can lead to further questions and the system of classification was not on the original list of questions.

d) Theme 4: Factorial explanations for the DAG

Like with the interviews with the BE heads, this theme had the second largest number of references (40) among the five themes emanating with from the interviews with 3 experts in the DAG discourse. Of the 9 subthemes, racism/unconscious bias had the highest references (17) by far from the 3 interviewees. Teaching and assessment methods had 6 references by the participants. Remarkably, sense of belonging, not listening to student voice, institutional culture and leadership and retention and progression each were referenced by only a participant (not necessarily the same for all factors). One participant also provided a deficit model factorial explanation for the gap. Fig 5.26 is an illustration of the references for this subtheme.

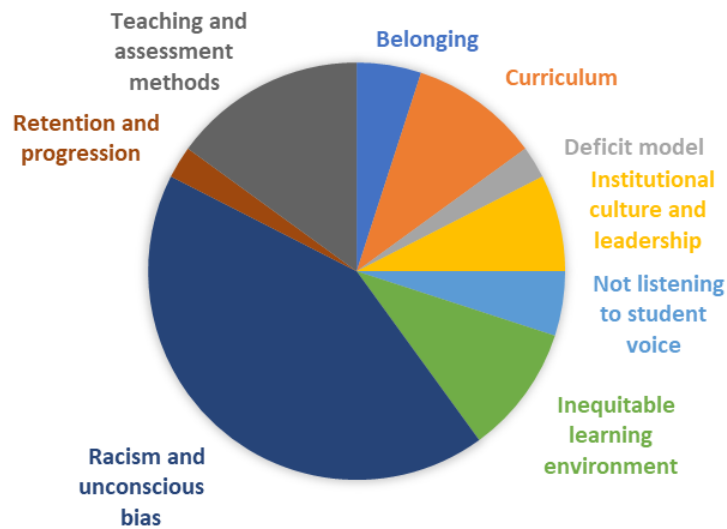


Fig 5.26 Distribution of codes for factorial explanations for the DAG by 3 participants

e) Theme 5: Measures to close the DAG

The measures to close the DAG had the highest number of references (41) as can be seen in Table 5.54, indicating the importance of the closure in the eyes of the three participants. It also features subthemes that are further divided into mid and low levels. Given that the closure is the major focus of this study and similar studies, this theme is very significant. The graphical representation of this theme is shown in Fig. 5.27.

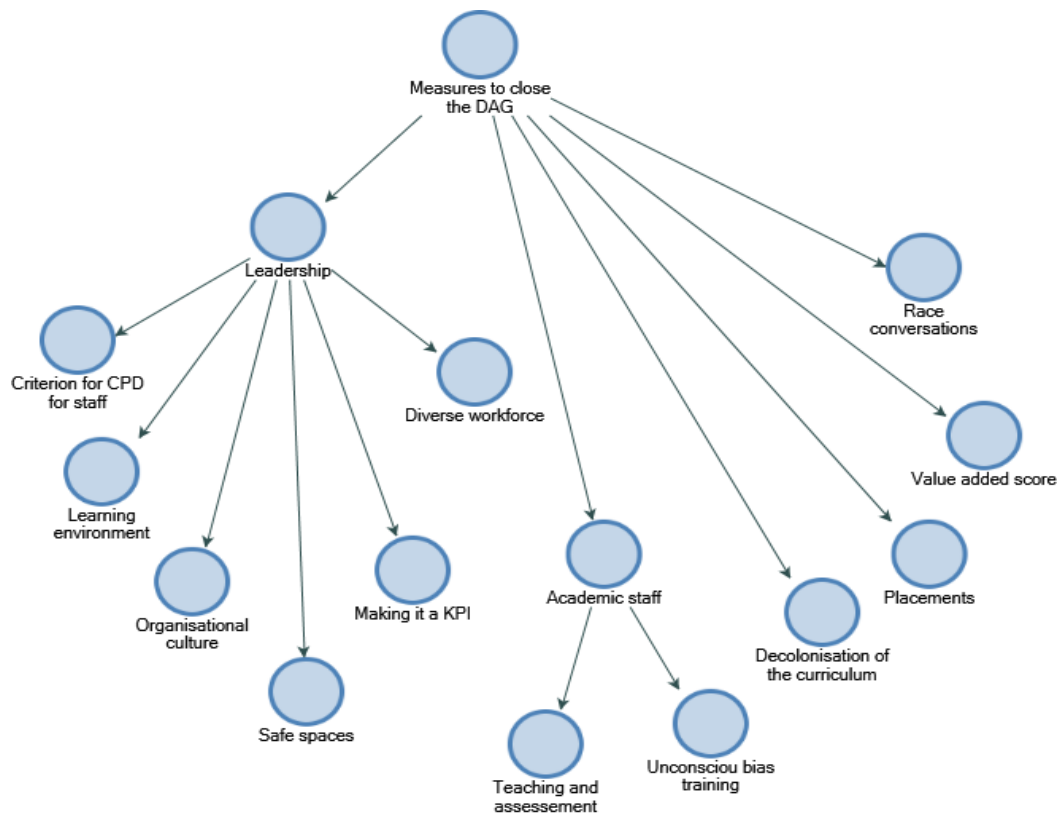


Fig 5.27 Structure of the codes for measures to close the DAG according to the experts

5.3.2 Focus groups discussions

This section presents the findings from 4 focus group discussions with BAME students from the BE sector. The discussions were recorded on MS Teams and so involved video recording as well as audio and participants had the option to turn off their cameras. The use of video also helped the researcher in capturing not just what was said, but also how it was said and the participants' body language. In addition, with the participants' consent, the discussions were recorded on multiple devices in case one failed to record. They were then transcribed verbatim. It was important while transcribing the discussions to distinguish between the interviewer and the interviewees. The discussions generally lasted about one hour each and were transcribed using the software Otter as well manually. The data were cleaned, and transcription errors corrected before being imported into NVivo 12 for analysis.

5.3.2.1 Focus groups discussions outline

A total number of 16 students participated in the 4 focus group discussions. Questions used were carefully framed to cover related research questions for the study. A copy of the questions is included in the appendix.

5.3.2.2 Analysis of the discussions based on themes

This section presents the analyses of the findings for the discussions based on themes. As was mentioned before in section 5.3, a number of themes and subthemes emerged. To illustrate the relationships among them, these themes were divided into high level, mid-level, and low-level themes. Table 5.55 shows the thematic framework developed from the analysis of data from the focus group discussions using NVivo 12.

Table 5.55 Thematic framework for all levels of themes from focus groups

Themes and sub-themes	No of Codes	No of Contributors
1 Acronym BAME	1	1
2 BE Sector	35	14
2.1 Culture of the industry	4	3
2.2 Barriers to BAMEs in the industry	6	5
2.3 BAME lecturers	25	12
3 DAG	8	8
3.1 Definition	3	3
3.2 Knowledge	5	5
4 Experiences of BAME Students	147	14
4.1 Challenges and barriers	41	9
4.2 Motivation	17	11
4.3 Racism and unconscious bias	42	12
4.4 Support from universities	47	14
5 Factorial Explanations for DAG	176	14
5.1 Belonging	19	13
5.2 Curriculum	18	11
5.3 Deficit model	8	6
5.4 Institutional culture and leadership	14	8
5.5 Lack of support	2	2
5.6 Mentoring and role models	15	12
5.7 Racism and unconscious bias	35	10
5.7.1 Mental health issues	3	3
5.8 Retention and progression	23	12
5.9 Teaching and assessment methods	39	13
6 Measures by universities to close the DAG	97	13
6.1 Anonymous marking and second marking	7	7
6.2 BAME lecturers and role models	10	10
6.3 Mentoring	19	11
6.4 Placements	8	8
6.5 Safe space	1	1
6.6 Strong leadership	3	3
6.7 Student voice	21	10
6.8 Support	28	10
Overall	464	16

The four focus group discussions produced a total of 461 codes categorised into 6 main themes: Acronym BAME (Theme 1), BE Sector (Theme 2), DAG (Theme 3), Experiences of BAME students (Theme 4), Factorial explanations for the DAG (Theme 5) and Measures to close the DAG (Theme 6). Theme 5 had the highest number of codes (176) followed by Theme 4 (147), Theme 6 (97), Theme 2(35), Theme 3 (8) and lastly Theme 1(1).

a) Theme 1: Acronym BAME

There was only one participant who referred to the acronym BAME and with great distaste. This sole reference probably might be because others did not mind or could not be bothered about terminology.

b) Theme 2: BE Sector

There were 35 references to the BE sector (HE and industry) by 14 participants and these were categorised into 3 subthemes: culture of the industry, barriers to BAMEs in the industry and BAME lecturers. The subtheme BAME lecturers had the greatest references (25) by 12 participants, and this was followed by 6 references to barriers BAMEs face by 5 participants and lastly the culture of the industry (4) referenced by 3 participants.

c) Theme 3: DAG

This theme had 2 subthemes – definition and knowledge which investigated how knowledgeable the students were about the phenomenon. The few references coded for this theme signify that the students might not be very knowledgeable in this regard and the findings showed 3 references by 3 participants for the definition of DAG and 5 references by 5 participants for the subtheme knowledge.

d) Theme 4: Experiences of BAME students

This theme was categorised into 4 subthemes: challenges and barriers, motivation, racism and unconscious bias, and support from universities. 47 references from 14 participants had to do with support received from their universities while 42 from 12 participants were related to racism and unconscious bias. Challenges and barriers attracted 41 references from 9 participants while motivation had 17 references from 11 participants. Fig 5.28 illustrates the references graphically.

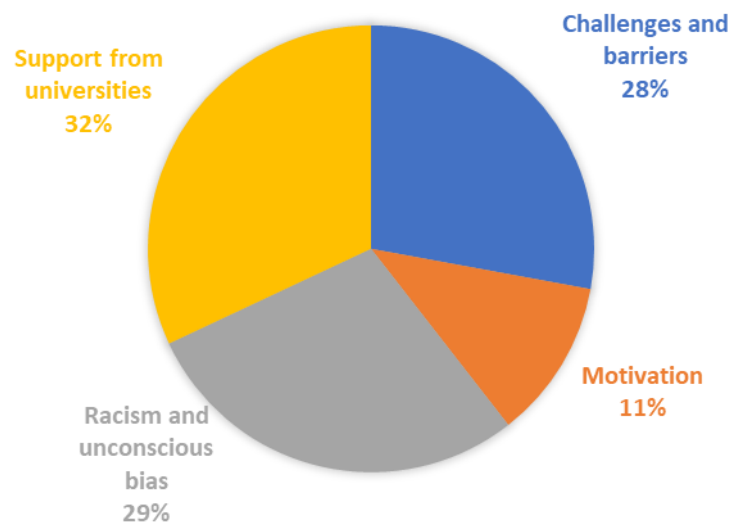


Fig 5.28 Distribution of codes for experiences by focus groups participants

e) Factorial explanations for the DAG

Given that this is one of the focal points in the effort to close the gap, it was not surprising that this theme received the most references out of the six themes. Out of its 9 subthemes,

teaching and assessment methods had the highest number of references (39) followed by racism and unconscious bias (35). The subtheme with the lowest references was lack of support. Fig 5.29 is an illustration of the references for this subtheme.

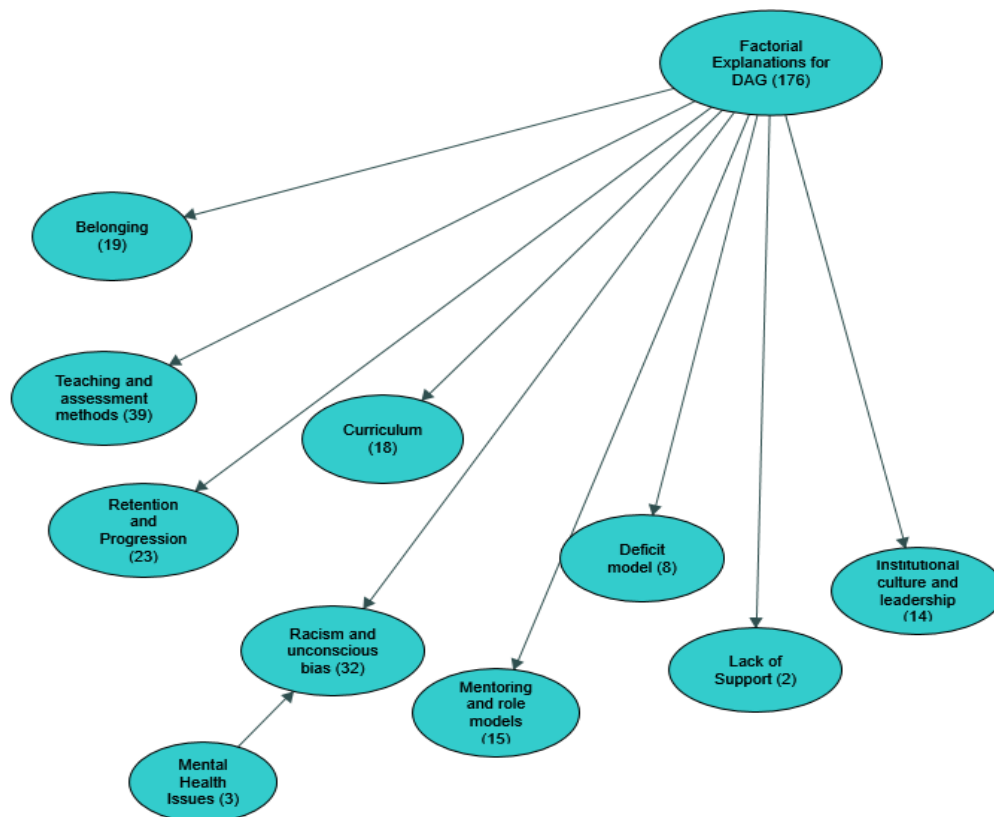


Fig 5.29 Structure of the codes for factorial explanations of the DAG based on focus groups

e) Theme 6: Measures to close the DAG

It can be observed from Table 5.55 that measures to close the DAG had 97 number of references in the views of 13 participants. It also has 8 mid-level themes. Participants had more references to support (28) than any other subtheme and this is followed by student voice (21). This theme is very significant as it is the major focus of this study and similar studies. Fig 5.30 shows the graphical illustration for this theme. Fewest number of references was made to having a safe place and perhaps this may signify a lack of awareness of such an opportunity or a lack of trust of its 'safety.' An illustration of the number of references made to potential measures for closing the DAG according to the participants is presented in Fig 5.30.

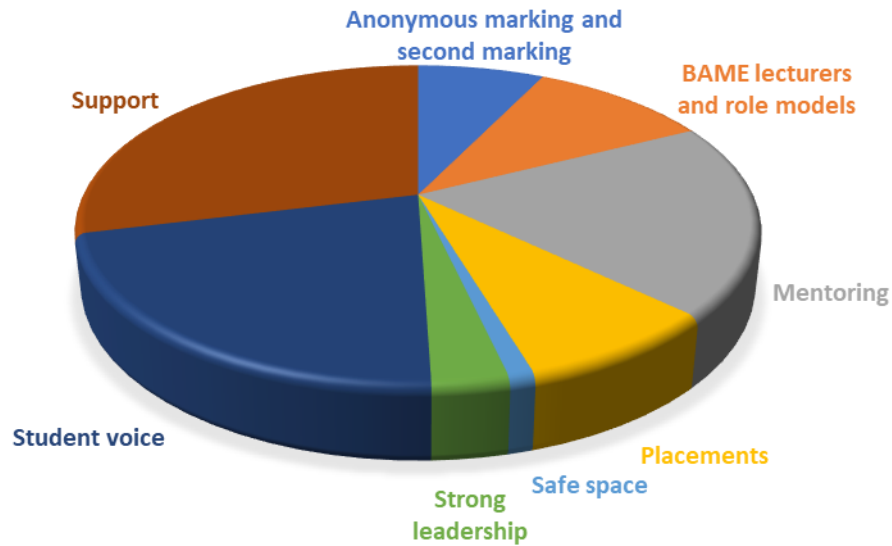


Fig 5.30 Distribution of codes for measures to close the DAG by focus groups participants

5.3.3 Triangulation of data from interviews and focus groups

The data gathered from the two sets of interviews and four focus group discussions are triangulated in this section of the thesis prior to discussion of the findings. The themes will also be used later to compare and integrate the findings from the MM and to interpret the results and address the objectives of the study.

5.3.3.1 The BE sector

BAME staff representation at HEIs, where the participants for the interviews and focus groups came from, was considered to be good at some universities but could be better at others, especially when compared to the BAME students. Some however stated that the issue usually is not just about the number of BAME staff but BAME staff in strategic management positions. There was consistency among the participants that more BAME staff is needed in HE for diversity, but BAME student participants particularly noted that such staff should not be for the just a tick box exercise. Many of the HEIs had a good proportion of BAME students; some more than proportionate when compared with the white students, and some less than.

For the BE industry, all participants across the board agreed that the industry is not inclusive, and some saw the sector as being worse than other sectors in the country as it is very traditional. Barriers to BAMEs getting into the industry and progressing within the industry included good degrees, racism, lack of mentors and lack of placement opportunities. However, some noted that there are noticeable changes for better diversity and inclusion particularly among the younger generation in the industry.

5.3.3.2 DAG

This theme emerged from participants responses to questions about the definition of and their degree of knowledge about the DAG. Among student participants, the understanding of the DAG as a term was more limited than those of the BE sector leaders in HEIs and the DAG experts interviewed but the issues nonetheless were well understood. Student awareness is on the increase though. Within the BE departments/schools, there has been a greater awareness about it because of the OfS 'shouting about it' as one participant put it and universities are now required in their Action and Participation Plans (APP) to state how they are addressing the gap. The degree of knowledge about it though is still limited among BE staff as there needs to be a relationship between an increased awareness and knowledge as some participants stated.

5.3.3.3 Factorial explanations for the DAG

This theme got a lot of references from all data sources signifying that participants had a lot to say about it. Teaching and assessment methods and racism/unconscious bias were the most referenced across participants as explanations for the gap. Retention and progression were also a very important factor for students and BE leadership participants but only one out of three expert interviewees referenced it. Sense of belonging and the BE curriculum was also recognised as a major explanation by most participants. Another explanation posited by many participants from all categories was institutional culture and leadership at HEIs. They felt that HEIs have a great role to play but many seem not to be taking it very seriously.

There were also many references to deficit model explanations from student and BE leadership participants but not so from the expert participants. Perhaps this indicates that the latter are more knowledgeable about the shift from deficit model explanations to HEIs having to look within themselves since controlling for these factors have failed to eliminate the DAG.

5.3.3.4 Measures to close the DAG

Participants stated quite a good number of measures that HEIs are adopting and should adopt to close the DAG. Top measures had to do with the learning environment and strong leadership according to the responses from all three categories of participants. Providing a more diverse workforce who will also serve as role models and mentees, making the closure of the DAG a KPI, providing safe spaces and listening to the student voice were part of the measures that a strong HEI leadership should be undertaking. The learning environment according to participants needed measures like the decolonisation of the BE curriculum, collaborative learning, more support to students and engagement with the BE industry for BAMEs, to be more inclusive and equitable. Other important measures across the board were assessment methods, placements and having race conversations.

5.4 Triangulation of data from primary data sources

The data gathered from the MM are triangulated in this section based on themes and will be used for the interpretation of the results and to address the objectives of the study in the next chapter. Looking at themes emerging from section 5.2 (analysis of quantitative data) and section 5.3 (analysis of qualitative data), four themes have been adopted for this section and they are discussed below.

5.4.1 The built environment

The BE is the primary sector under investigation in this research. While the BE in HEIs are the primary focus, progression of BAMEs into the industry has also been considered as the DAG is a major factor in BAME underrepresentation in the industry. The findings from analysing quantitative and qualitative data show that while participants agree that there are some representations of BAME students and staff in BE courses in UK higher education, more needs to be done to have a more inclusive and equitable sector.

Findings also show that the BE industry lacks diversity and that there are barriers that prevent greater participation and progression of BAMEs in the industry even though these have social justice and equity implications. Things are however changing albeit slowly.

5.4.2 Experiences of BAME students in the BE

Comparing the findings from all the primary data sources, experiences of BAME students was triangulated based on 2 questions from the questionnaire for students (factors that impact students' study and another about their learning environment) and several questions for BAME students involved in the focus groups. Using the Spearman's Rank Correlation test, findings from the questionnaire for students showed that a group of listed factors (sense of belonging, curriculum, role models, racism/bias, teaching and assessment for example) similarly impacted students irrespective of their ethnicity. Responses from the participants in the focus group discussions however threw more light on the impact of these factors on BAME students. These were categorised as challenges and barriers, motivation, racism/unconscious bias, and support from the universities.

5.4.3 Factors contributing to the DAG in the BE

All the participants in the study were asked the question of what they thought were factorial explanations for the DAG. While there is some consistency in some of the responses for example, sense of belonging and lack of role models/mentoring were rated as one of the top factors by many participants across the board, there is some divergence in the rating of some factors. It was interesting to note that while the BE curriculum and teaching and assessment

methods were definite top contributory factors for participants on the qualitative side, both were rated medium and lower respectively by the quantitative side.

5.4.4 Measures to close the DAG in the BE

Most participants across the boards cited a diverse workforce as an important measure which HEIs need to be implementing to close the DAG. Having a more diverse workforce will also provide role models and mentees and both were also good measures from the point of view of the participants. Although the professional bodies had placements opportunities for BAMEs as the top measure, other participants did not rate it as highly. Measures that are related to an equitable learning environment provided by strong leadership such decolonised/inclusive curriculum, listening to the student voice were also perceived to be good measures HEIs should be implementing.

5.5 Chapter summary

In this chapter, the findings and analyses of primary data gathered through questionnaires, interviews and focus group discussions were presented and analysed to provide a detailed exploration of the DAG. These were then compared and integrated together to arrive at four themes – the BE sector, experiences of BAME students in the BE, factors contributing to the DAG in the BE and measures to close the DAG in the BE.

The next chapter provides a discussion of these findings.

6. Discussion on findings

6.1 Introduction to chapter six

The research methodological choice adopted for this study as stated in Chapter Four (4.4) is mixed methods (MM) involving the use of questionnaires, interviews and focus groups for data collection and analysis. In Chapter Five, the findings were presented, compared, and integrated leading to the formation of four themes. This chapter discusses the research findings from these data sources with particular focus on the conceptual framework, the four emerging themes, research questions and previous contextual research.

6.2 Initial conceptual framework

As stated in Chapter One, the aim of this research is to develop a conceptual framework for UK higher education institutions that will address the retention, progression, learning experience and degree outcomes of BAME students in the BE courses thereby significantly narrowing and possibly eliminating the persistent awarding gap.

The literature review carried out in Chapter Two identified some recurrent factors that affect degree outcomes and because of how frequently they were mentioned in the literature, these factors were identified as key and influential and most appropriate for this research. The initial conceptual framework of the research was therefore based on these significant recurring factors and excluded any factor attributable to the student that would have been influential according to the deficit student theory even if they were mentioned by the participants in the study. These key factors were:

- Leadership and institutional culture
- Belonging and student experience
- Mentoring/role models
- Curriculum
- Teaching and assessment methods
- Racism and biases

These key factors served as a framework for the investigation into the phenomenon called the DAG and were embedded in the design of the questionnaires and the questions for the interviews and focus group discussions. Having done the analysis of all data collected for this study, these were also embedded in the four emerging themes that will be used in this section for interpreting the findings.

6.3 Emerging themes

It is worthwhile to reiterate the four themes that emerged from the triangulation of data from all primary sources for this study and were described in Chapter Five (5.4). The themes are:

- The built environment
- Experiences of BAME students in the BE
- Factors contributing to the DAG in the BE
- Measures to close the DAG in the BE

While most of the discussion about the BE will be around the HEIs, the BE industry will also receive consideration because one of the major implications of the DAG as noted across disciplines (discussed in Chapters Two and Three) is that it hinders graduate-level employment as well as the pursuit of further studies for BAME students who come out without a 'good' degree.

Experiences of BAME students in the BE sector of HEIs are very important in the discourse about the elimination of the DAG because experiences have a great impact on students' sense of belonging and attainment. The questionnaire and particularly the focus group discussions gave insight to some of these experiences.

From the review of literature, recurring factors thought to contribute to the DAG were outlined and used to develop the conceptual framework. They were then used as the basis for quantitative and qualitative investigation in the BE. The impact of these and other factors within the BE was rated by the participants.

Participants in the study had quite a lot to say about measures to close the gap within the BE. Some of these measures were already set up in their HEIs or were offered as possible solutions to closing the gap.

6.4 Discussion of the findings based on research questions

The aim of this study was outlined in Chapter One, along with the objectives that would help achieve it. Four research questions were also posed in order to properly address the objectives. The results of the study based on these research questions are discussed in this section.

6.4.1 Research question 1: Is there really a gap between BAME students' degree outcomes and their white peers in the BE courses and if so, what accounts for the awarding gap?

The above question can be linked to theme 1 (the BE) and theme 3 (factors contributing to the DAG in the BE) that emerged from the triangulation of all data for the study. To answer the

question, the discussion will link findings based on the themes with existing knowledge found in literature.

6.4.1.1 The built environment

Results from the analysis revealed quite a variation in the DAG for the BE sectors of participants' HEIs from a reverse gap (negative percentage) to as high as 30-35%. For most HEIs, a gap had been identified between BAME students and their white counterparts over the years. Again, for most, the gap has been reducing through the years and has even disappeared in some places. This continuous reduction in the gap is consistent with what is obtainable in other disciplines (OfS, 2022). According to one of the participants who is a leader within the BE sector in a HEI,

It is a significant gap, but it is reducing because of the intervention we put in place. It's been narrowing down in the last five years quite speedily.

A major observation was that the fewer the number of BAME students, the lower the DAG and vice versa. Thus, HEIs with a higher number of BAME students had a higher percentage of differential attainment and where there were no BAME students in the sector, there was 0% DAG. The 0% DAG for a HEI with no BAME students is understandable as there would be no groups to compare although this raises a question of access for BAMEs into the BE courses of such HEIs. However, this was not the case for one of the leaders interviewed; in their HEI, the proportion of BAME students to white students was 50:50, but as a result of their intervention, the gap became much narrower – less than 2%. For those with a few number of BAMEs and a low DAG, the indication according to an interviewee was that the number of BAMEs was too low to be statistically significant.

There was also a significant amount of variance between courses in the sector, but the gap is always because of BAME students achieving less and never in the opposite direction. One may wonder why this is always the case. This is interesting because according to one of the leaders interviewed,

in terms of attainment, according to statistics though the Blacks and Asians are in minority, they tend to do very well in terms of grade attainment. In fact, they are the highest scorers in most of the modules I have taught.

The leader clarifies that in terms of overall grading, the BAMEs tend to perform very well, obtain the highest grade in class, but in terms of average performance, the BAME students perform less well than the whites. So, a BAME student obtaining the highest score in a module

does not mean all BAMEs have the highest grade. For some HEIs, there is a year in year out variance with the DAG within the BE courses depending on the course. An example is Quantity Surveying which seemed to have a bigger gap than other BE courses at some HEIs according to the findings. This variance in the DAG across disciplines has been acknowledged in literature (Dhanda 2010; Richardson 2015 and Advance HE, 2021) and discussed in Chapter Two.

Another variation in the gap for the BE is the way some HEIs measure it. For example, for one university according to a participant, it was not just a matter of a good degree (a 1st or a 2:1) but more

about attainment than achievement of degrees. So, we particularly measure against achievement of a good degree – a 2:1 or a first, and that's where the gap is.

This is consistent with literature that the biggest gap is between the number of BAMEs who achieve a 1st and their white counterparts who achieve same.

Findings from the interviews with leaders in the BE sector of HEIs further reveal that though the DAG had been coming down for almost all those HEIs, the reduction for most was more prominent during the pandemic years. According to one participant,

It's gotten better and part of this I think is some of the interventions that happened during COVID.

This is in line with the assertion by the OfS (discussed in Chapter Two) that though the number of graduates receiving a 1st or a 2:1 has steadily increased over time, the highest increase occurred during the pandemic and more specifically with the issuance of first-class which greatly impacted the DAG's reduction (OfS 2022). Most of the participants agreed that there was a correlation between the reduction of the DAG and the pandemic period but couldn't be certain of the causation. They opined that causes could include learning styles, alternative assessment methods, no detriment policies, virtual spaces, and flexibility and at some HEIs, the BE had some of the best outcomes.

The findings also lend credence to findings from literature that the DAG is widest between Blacks and whites and one of the BE sector leaders who was interviewed used this to justify targeted intervention in that range because if the gap is reduced between Blacks and whites, ultimately the overarching DAG will be reduced. He stated that,

the awarding gap was less for Asian students that is why the work is being done in the first instance for black students because that is where the gap was greatest.

Overall, the study showed that there is indeed a DAG between BAME students and their white counterparts in the BE and this varied greatly across institutions and courses. However, many institutions noticed some reduction in the percentage point of this difference. Whether the difference had something to do with the pandemic period will be seen when the measures introduced during the pandemic have been totally removed and everything back to normal.

Having the evidence of statistically robust data and working with them is very crucial in the quest to close the DAG. To fully understand what is happening and what works, the BE must maintain its own data. Quite a good number of the participants did not have specific official DAG data for the BE and others were unable to give out this information due to its sensitivity. In one institution, the BE sector leader stated that the data is collected centrally and that one year the BE was provided a DAG figure that had decreased by 17% from the previous year for no obvious reason.

6.4.1.2 Factors contributing to the DAG in the BE

As noted earlier, the conceptual framework for this study was based on significant recurring factors from critical literature review and excluded any factor attributable to the student that would have been influential based on the deficit student theory even if they were mentioned by the participants in the study. These were embedded in the design of the questionnaires and the questions for the interviews and focus group discussions and the following factors were deduced from the study as being influential:

- Role models/mentoring
- Curriculum content and design
- Sense of belonging and integration
- Student experience
- Leadership and institutional culture
- Racism and unconscious bias
- Placement opportunities for BAMEs
- Teaching and assessment methods

Role models/mentoring

Mentoring and role models were seen by participants across the board to have very significant influences on the DAG in the BE. Role models make big impact on BAMEs even just by being

visible and as a participant said, role models are important 'so that the student can anticipate what is at the end for them.' They need to be sure that they have a future in the sector, or they might be wasting their time there. Similarly, another participant – a leader noted,

So, in terms of role models, it must have an impact. And I suppose if you're looking at it from an individual student's perspective, the only role models they going to see are the people who happen to walk into their classroom. And so, I suppose, having some level of diversity in your workforce is a good thing because you can see yourself in your teachers.

This visibility of 'people like me' is both important not just in the HEIs but in the industry as well. People want to see people like them, so when there is a lack of or inadequate representation of a group of people in an industry, it can be difficult for a member of such a group to have the confidence to go there, according to another participant within the leadership.

The above statements are in line with findings from literature review in chapter two which showed that BAME students (and arguably all students) like to have mentors/role models from the same ethnic background (Dhanda, 2010) and this is important because mentoring has the potential to be a very effective tool for inspiring, guiding, and supporting BAME students. It should involve more than just offering advice and should be centred on the student's experiences, which are better understood by mentees of the same ethnicity. Yet another participant commented on an observation by some BAME students in their HEI that,

the tutors teaching us in this module are all Caucasians, they don't look like us. We went to the site, none of the people there looked like us so we are wondering if we are on the right course.

This was buttressed by another BAME student stating that someone who has been in one's situation before are can better assist a student and relate to them because they share a similar cultural background and training. For them, discussing with someone who does not understand where the student is coming from can be challenging.

The study found that while some participants' HEIs had a good representation of BAMEs in the BE, others had few. This paucity of role models as confirmed by literature reduces the sense of belonging for BAMEs and consequently affects their retention and academic success as some wonder why they are even on the course. This was particularly evident in the

discipline of Architecture as several participants noted. According to one of the participants in the leadership cadre,

There is little representation of BAMEs in the Architecture industry for example, so students don't have role models. Because we have very few architects in the industry that are BAMEs, that reflects in the intake or application of BAME students into Architecture.

The above statement is congruent to observations made by some BAME student participants and lends credence to the importance of role models within the BE sector. The students stated that they always felt more comfortable to go to BAME lecturers for help when they did not understand what was taught. They could communicate any issues to the BAME role models or mentors for relevant advice and as a result, they got good grades. The role models were relatable to such students and shared their own experiences and struggles and understood how to support the students. In the words of one of the students,

I found that having a mentor is useful especially when they are BAME mentors because they are able to relate with one and provide relevant advice.

It was interesting to note from the focus group discussions with BAME students that they found student and industry mentorship very helpful which was not mentioned by any of the interviewees. However, this is understandable because not everything can be covered in a semi-structured interview. It also demonstrates the MM's capability of bringing out rich and diverse insights for comprehending a complicated phenomenon like the DAG. The participants stated that they found student mentoring quite impressive, and some had been mentors to other BAME students.

The students also benefited greatly from the experience of having an industry mentor. One of the participants who had a mentor in civil engineering received good guidance about practising in the industry as well as assistance with writing a strong resume.

A student participant in the discussion about the value of mentorship and role models shared their experiences at their HEI at different levels, and they summarised it as follows:

Mentoring also boosts confidence. We do two years of mentoring. In the first year, we had students from a higher level mentoring us. Second year we had someone from the industry and in the third year we had to mentor others. This was arranged by the university.

Curriculum content and design

Discourse about curricular and their contents particularly with reference to decolonisation has been ongoing in most disciplines in UK higher education as discussed in Chapter Two of this thesis. While some prefer to use 'inclusive' rather than 'decolonisation' there is an indication whatever the term used that there are some deficiencies which marginalise some group(s) of people.

Findings from data analysis show that according to the participants, decolonising the curriculum for the BE may not be as straightforward as in some disciplines like history. Many in fact did not see much problem with the curriculum for example, more than 50% of student respondents in the survey disagreed that the curriculum had any impact on the DAG. About 25% of them were uncertain of the influence of the curriculum on the gap leaving only less than 25% in agreement that the curriculum had an impact. Of the 25% in agreement, just more than half were BAMEs. This was contrasted by the responses of the BAME participants in the FG discussions all of whom agreed that the curriculum was influential, and something needs to be done. This is particularly important because the BAME students are UK domiciled and not international students. Below are some of their responses from the FG discussions.

A lot of white lecturers don't really teach anything that's a bit broad. They don't cover everything. I personally think a lot of the white lecturers only teach things that are 'very white.'

Most white lecturers make references to or use examples that are familiar or representative of the white society which might not be very relatable to BAME students. So that is why I think there is the introduction of the internationalization into the curriculum. Internationalizing the curriculum means for example, that when one is teaching project management, they don't only use examples from the UK. They need to include examples from other perspectives so that all students can relate, have a sense of inclusion, and understand what is being taught.

Some participants added a different perspective, contending that the curriculum is not diverse enough, and as part of decolonization, the curriculum needs also to be relevant to what happens in the industry and that knowledge helps them to get good grades in their studies. One participant reasoned that if they relied on what they were taught, they one would not get employment. They opined that,

The curriculum is not white. It is just that it is not related to the industry. Curriculum is not relatable to what is on the site. After almost three years at the university, what I see on site is different from what I am taught. Only about 10% of what is taught is relatable on sites, so what is the point?

Echoing the same sentiments expressed by students about curriculum being relatable to the industry as exemplified by the above statement, a participant representing BE leadership of an institution stated that,

Exposure to the industry, professional awareness informs one's ability to perform in school. The BE is not History, it's not English. It is a practical oriented course and professionally driven. If one has a good inclination of professional standards, professional awareness, and professional way of working, you are 100% likely to graduate with a good grade.

Interviews with some leaders from BE sector of the HEIs demonstrated convictions varying from seeing the curriculum as being the same over so many years despite all the changes around to what can and cannot be decolonised. One participant argued,

As far as I know curriculum is the curriculum that it was 25 years ago. I don't think that much modernisation happened at that level. Certainly not these issues have been brought into the thinking when designing a curriculum.

For some others, there was less clarity about what decolonisation of the BE curriculum meant as can be illustrated in the words of one of the leaders,

I'm less sure what it might mean in the built environment. I can see that there might be some work to be done in terms of visual representation for the built environment, representing a diversity of people working in the built environment. But apart from that, I am not entirely sure of what decolonizing the curriculum would mean in the built environment context. It might mean having case studies from elsewhere around the world but that is more like internationalizing the curriculum rather than decolonizing it.

Many from the BE sector leadership in HEI, agreed that decolonisation of the curriculum has been topical in recent times. This includes argument from some sectors that the books,

literature, drawings, and the systems are skewed to the white way of learning. Some participants stated that the curriculum delivery and design are the foundation of what is done in the BE and can eliminate around 50% of problems around the DAG. Such argued that curriculum design and delivery play a crucial role in the DAG and if they favour one group, then issues arise. A few participants agreed that this was true in some respects but not true in others. According to one participant,

A building is a building anywhere; it has a foundation, substructures, superstructure, and a roof, but the fabric might be different. Decolonisation in History is more evident unlike say in Construction Management. Foundation footing, loading axial loading is same everywhere. The concept of decolonisation in all respects does not significantly apply to the built environment.

Although the leaders' views on what decolonization of the BE curriculum means or involves varied, all agreed that it is important that students can relate to the curriculum, and that how the curriculum is framed or delivered should not disenfranchise students. Students need to see themselves within the curriculum and feel connected to it or they might want to leave. This can then exacerbate lower retention rates especially for BAME students who through the review of literature have been noted to have a higher attrition rate than their white counterparts. In the words of one of contributing leaders,

There is a need for the pedagogic styles of education to be much more understanding of lived experience. That is an important contribution to someone who will go out into the profession. The pedagogy overall needs to change to enable those students. It needs a more structural conversation about techniques of teaching, techniques of developing knowledge and the production of expertise in the community.

From the point of view of experts on the DAG interviewed, if all that is being taught is Eurocentric and sometimes taught by just whites (particular reference again to Architecture), it is not a diverse learning environment, and this impacts the curriculum. One of the participants went further to say that the BE,

Can make them feel like they're non-existent in the curriculum (their own identity, background, culture, what they represent), that there is a kind of erasure so they always feel that they're imposters and maybe could suffer from what's called impostor syndrome.

The following statement from one of the DAG experts highlights the findings about the influence of curriculum on the DAG:

The heart of the curriculum is important. The curriculum should be such that each of our students see themselves in it and feel part of the curriculum whether from a historical positioning, or examples that people give, or the case studies people give, or whether students see some of the voices that speak to them within the curriculum. All these are why decoloniality is an issue so important.

Sense of belonging and integration

In Chapter Two, findings from literature demonstrated that academic success and a sense of belonging are correlated (Cousin and Cureton, 2012; UUK and NUS, 2019) and that BAME home students are less likely than white students to feel 'at home' at UK HEIs than they have felt previously in the society. A possible explanation was that the DAG mirrors the racial inequality and injustices that are obtainable in all facets of life in the UK and so BAME students are familiar with that. The results from the analysis confirmed the impact a sense of belonging had on attainment to which most participants across the board agreed.

BAME students involved in FGs whose universities were diverse felt they belonged because they saw people like them, and it made them feel comfortable able to give their studies the focus it needed. An evaluation of the responses from leaders within the BE in HEIs gave more insight to the huge impact a sense of belonging makes. Unlike those who felt a sense of belonging, students who feel alienated do not do as well and constantly feel that they are outsiders to what is being studied or that the environment is the problem. In many instances, this can lead to attrition. One of the respondents said that they had to leave their previous HEI because they did not feel that they belong. They were few BAMEs in the class which caused a challenge, and the student did not feel a sense of inclusion within the course community. However, getting to another HEI, they felt like that was where they belonged and were doing well. Below are examples of the responses from some participants who are leaders in the BE sector of their HEI:

One of the biggest things behind the level of attainment from what I've seen, the biggest challenge that I see is the degree to which BAME students if you allow me to just use the acronym, tend to experience a more segregated university experience than those of their white classmates.

Our courses are predominantly white; white students tend to be predominantly from family background of parents who work in the construction industry and their reasons for coming into the course are to do with that sort of family history. So, there is a culture of whiteness in that group which I think the BAME students find quite hard to integrate into.

The above perspectives are consistent with those of the experts in issues around the DAG that were interviewed one of who said,

Where the minoritized students don't have a sense of belonging and they don't have the confidence that staff that teach them take them seriously, all this then leads to a very poor sense of belonging. Some then get into complexes, that no matter what they do anyway, perhaps they won't be as good in front of the assessors as you would imagine.

In summary, findings from both previous studies and this study show that the degree of sense of belonging students have, has an impact on how the students respond to classes, how they interact with tutors and other students, and how successful they are academically.

Experiences of BAME students

A major factor that affects BAME students' sense of belonging in HEIs and consequently contributes to the DAG are the experiences that the students have had. For BAME students this is very vital. Majority of the BAME students in the survey stated that their learning environment was positive but the nature of open-ended questions in questionnaire could not give much insight into what the experiences of those students were. Through the FG discussions however, greater insight was provided. This section deals with such experiences.

Whereas the students shared both good and bad experiences only the ones that negatively impacted them will be discussed here as contributory to differential attainment. Most of the students had not experienced racism overtly and agreed that within the university environment it would be difficult to be openly racially abused. However, they spoke about institutional and systemic racism that influences performances. Many of them never complained about such incidents but noted that it makes one not to be at their best but do to do just enough to get by. Many were of the opinion that the whites believe that BAME students rarely complain about injustices done to them and therefore can treat BAME students in ways that they would not treat white students. According to the students, BAMEs typically do not complain because, 'it will never get a good outcome. It will just go the usual way of being inconclusive.' Unlike the BAME students however, a white student can take out time to write pages of complaints.

Some of these experiences are voiced out in the following quotations from different participants in the four FG discussions.

the white teachers that we get, some of them can be quite condescending. Some of them probably don't expect you to have any questions as a black student. They just speak over you.

I had an experience once when I went to a lecturer's office. He was there, seated, but he told me that because I didn't have an appointment to see him, I could not see him. I had a very important issue, so what did I do? I left him, went to a colleague who is English, and I told him, "Let's go and see this lecturer." On seeing this colleague, he opened the door and he attended to us. I felt dehumanized.

When we work with our white peers, they tap the knowledge that we share but will not share their knowledge with us.

Some students who took part in the discussion said that when they observed a lecturer systemically discriminating against them, it had a significant negative impact on both their attendance and their grades. Two students stated,

If a lecturer is not nice to me, I don't like his attitude. I don't feel good around that lecturer, and I will not attend the lectures.

That can affect someone academically as they wouldn't want to be in class to be embarrassed. I would not want to be embarrassed all the time. I would lose interest in attending the class.

Although the participants in the FG discussions acknowledged that BAME most often do not complain about injustices, one stated that this was wrong. They said,

I will basically say that we are treated differently and can be given lower grades because we don't complain when we should. We are partly

responsible. We don't ask questions or complain so that people will not think that we are rude or shouting as we have been stereotyped.

One student cited a case with a lecturer that did not like them and would not recognise them if they raised their hand in class. The lecturer did everything for the student to fail so the student had to complain and threatened not to continue with the course. The student said they realized that if they did not do something about the lecturer's behaviour, they would probably not graduate.

A rather surprising finding about BAME students' experiences was the fact several participants had reservations about some BAME lecturers. They argued that universities sometimes simply hired BAME lecturers to fill diversity positions without evaluating the quality of the lecturers. So, in as much as they wanted to have BAME lecturers, they wanted those that will pass knowledge on to them. The quotations below help to illustrate this.

A lot of my tutors that are BAME, I don't feel like they really teach me. They dictate and speak to you as if your dad is speaking to you. And I don't think this is professional.

The university don't really care about their background, they just want to get these people in to say that they have hired BAME lecturers.

I don't need to feel like my dad is schooling me. I need to be like, he's a BAME lecturer that's educating me, empowering me as a BAME student.

Leadership and institutional culture

Another factor that the study found contributes to the DAG is leadership and institutional culture. This impacts BAME students' sense of belonging to the institution and consequently attainment according to the UUK/NUS (2019) study. The elimination of the DAG in HEIs calls for institutional commitment which can only be attained by senior leadership accepting the responsibility of developing strategies, policies and initiatives judged pertinent to removing attainment differentials, and making sure they are implemented and sustained (Sing, 2011; UUK/NUS, 2019; Berry and Loke, 2011). This is congruent with findings from the surveys and interviews. The majority of questionnaire respondents thought that leadership and institutional culture play a significant role in the DAG. Interviews showed that senior management in HEIs

were predominantly white and in most instances were not totally committed to eliminating the gap perhaps because they did not have the lived-in experience that BAMEs have. This is indicated through such statements from some interviewees within the leadership cadre as the following:

By and large without any reservation, organisational structure of universities is skewed favourably towards the whites. Institutions need to work on this to bridge that gap of inequality. Looking at strategic management in the built environment across the UK it is about 99:1. Most of the people that occupy management positions and run the schools are whites. This is why the gap remains; because there is no serious strategic drive to solve the problem.

I think it's fair to say that in some institutions, these are not looked into as well as we would want them to be looked into. The universities perhaps are not doing as much as they would need to do.

Participants also indicated that the DAG is not just about the university structure but about its operations. They reasoned that when the top management is diverse, it encourages people but sometimes, the structure itself allows the gap to exist. They contend that it is all about how the senior management want things to go. Some would rather leave things the way they are and believe that somehow, things will sort themselves out. However, these participants believe that things will never sort themselves out; they need to be confronted. One leader stated that,

Senior leadership in universities is still predominantly white. It's only recently that there was the first black Vice Chancellor. There are issues I think around senior management and the culture at the top of some of these universities.

It may be difficult for persons from different ethnic backgrounds to relate to the experiences of those from BAME backgrounds (Nagel, 2020) and this can limit their understanding or willingness to address issues around the DAG. Another participant commenting on leadership and lived-in experienced said if there was a greater number of BAMEs among senior management in universities,

there might be a deeper understanding of that experience and interventions available to prevent student attainment gaps and progression gaps and the retention of students.

Findings from study align with the UUK/NUS (2019) assertion that vice chancellors and senior staff need to own and be accountable for the closing the DAG by driving institutional change and providing needed resources to remove racial inequities. It should be permanently ongoing and permanently embedded in the work of the institution.

Racism and unconscious/bias

HEIs are perceived as liberal environments seemingly committed to racial equality, but the histories and structures of universities have aided institutional racism and systemic injustice (as seen in Chapter Two) including the DAG. Previous research have demonstrated that the status quo needs to be challenged and social justice must be prioritised. Treating everyone equally (as in some EDI policies) has little impact on building an equitable society because the DAG bothers on racial inequality and injustices have been deeply ingrained in our twisted world over time as a result of colonialism, slavery, and capitalism (Singh and Kwhali, 2015). This is validated by the findings of this study as participants across the categories and MM data sources rated racism and biases as contributory to the DAG.

Responses from the FGs and interviews give more details into this than the ranking in the Likert questions in the questionnaires and show that racism is an important factor and is perpetrated by students as well as staff and the students stated that there is no need denying it. The difference many of them said is that these days, racism is mostly covert, and people try to be nicer albeit superficially. Two BAME students had these to say:

I think even when we talk about second marking of scripts, that is an acknowledgement of racism or unconscious bias. It shows that things are not going well, and the authorities know it. We all know that. So, it's a problem. It's there. We see it. We face it.

They mark BAME students down and maybe a BAME student did an assignment with a white colleague, but the white colleague gets a first while the BAME student gets a 2:2.

Among leaders from the BE in HEIs interviewed, there were subtle differences in their views abouts racism in HEIs. Some felt that it was mostly unconscious bias while others felt strongly that it was racism in many instances. The quotations below reflect both perspectives.

I just don't believe that we've got that kind of level of racism in our staff, but maybe I'm wrong. Maybe we do have that. I think people generally try to be fair, consciously try to be fair when they're marking people. But whether they succeed, I don't know.

A student once told me that a lecturer said to him, 'I don't know what you are doing here studying Architecture. I don't think Architecture is for you.' A lecturer's approach to two students might be different. Some are rude to some students like a white lecturer saying to a black student that university is not for everybody. This is a strong racial statement irrespective of the student's challenge in their study. There are such issues in universities.

Some lecturers believe certain students should excel while certain students should not excel. Staff have different perspectives about how to relate to students.

I suppose if you are unconscious probably how it manifests is in terms of a heightening of expectation of somebody from a particular background. You would give person A the benefit of the doubt because of some reason, person B you don't give them the benefit of the doubt because oh, they should have known it or they didn't listen or they've got a funny name. I really would hope that people don't do it for that latter reason, but it's probably more likely what happens. If it happens, it's that people give the benefit of doubt to people who are like them. And they don't give the benefit the doubt to people who are not like them. So rather than the kind of being an active 'I'm going to do you down, it's more like a positive, 'I'm going to lift you up.' I suspect it's how it might work.

One of the leaders interviewed further explained that sometimes even white students acknowledge that a lecturer favoured them above a BAME student. According to him, white

students are more outspoken, adept at voicing grievances, and capable of telling people what they really want to say directly. As a result, most staff members prefer to avoid dealing with such issues or challenges. In his view, the biases exist - conscious and unconscious biases. Another participant discussed the nature of systemic or institutional racism in HEIs and illustrated this as follows,

An example is a scenario where white students were struggling with exams and complained, and the exams' weightings were reduced. Why should the weighting be reduced? A lot of students who have voices complain and there are module evaluation boards to review things.

The views from the experts interviewed aligns with that from literature (in studies carried out by Advance HE and UUK for example and highlighted in Chapter two) and reveals that racism and biases do exist at universities both at the conscious and unconscious levels and there is a link between white privilege and educational outcome. The experts stated that it may be debatable, but organisations close to universities assert that there is still a high level of racism in HEIs with some being structural and others being institutional. Therefore, even though no one wants to be labelled as a racist, it is evident that there are racial undertones when examining the factors contributing to the DAG. Three quotes below from experts that were interviewed help to illustrate this.

Institutions are designed by humans to perform certain functions so those who designed them are maybe racist because they have those intentions. There are structures in institutions that adversely impact on students for example in universities, the academic regulations seem to be so complicated that even most academics don't understand them – the rules and the regulations. This means that there is an arbitrary nature to how you get justice in those institutions and therefore those with the most power clout backing them will be able to manipulate those arbitrary kinds of rules in order to win their case while those with less power will not be able to do that. In that sense, it can lead to discrimination.

I think that there's still a big racialisation of non-white students which means that they are treated with suspicion, maybe with pity, with lacking urgency; maybe they are seen as irrational and often their cultural mannerisms would be seen as evidence for that. African students might be

seen as loud and that's associated with not being reasonable in a philosophical sense. These are the remnants if you like of slavery, of imperialism, of European colonialism and the racism that was developed to justify the mistreatment of the black and colonised people. So, what happens within institutions, is that those will be playing out in the relationships.

People can undermine them, but I've talked to black and Asian colleagues, senior colleagues like professors who feel that they are still positioned like that. They are victims of structural racism and biases. I think it is worse when you go to league institutions like Cambridge and Oxford and the colleges. In some of those places, they are probably stuck back in colonial times.

There is clear indication from the data analysis and review of previous studies that racism and biases (conscious and unconscious) exist in the sector and have a significant impact on the DAG.

Placement opportunities for BAMEs

Placements play an important role in BE courses and help students acquire connections for employment on completion of their courses. For BAMEs, finding work placements has been noted as being difficult because of barriers and the image of the BE industry (CABE, 2005; Caplan *et al.*, 2009). The effect of lack of placements opportunities however are not limited to employment. Findings from the study suggest that the effects include differential attainments. Interviewees revealed that placements improve degree outcomes by transforming students and allowing them to return to the classroom with a deeper understanding of the course and the industry. Additionally, they stated that students who participate in placements typically perform better than those who do not as indicated by these responses:

If you go down the results from students on placement, it's rare that you get somebody who's not at least a 2:1. They tend to be first class.

Experience shows that placement plays a major role because the built environment is vocational and not theory based. Students need to see exactly what is being done. One can teach the students but when they

practice it, they can be sure of what the course is all about and builds confidence. Placements play a role.

Despite the acknowledgement that placements enhance degree outcomes, BAMEs are disadvantaged because as findings show from previous studies and data analysis, BAMEs find it difficult to secure placements and so lose its benefits. So even though placements are open to all students irrespective of their ethnicity in most HEIs, racism in the society is still a reality and some organisations do not accept BAME students for placements. According to two of the sector leaders in HEIs interviewed,

BAME students are disadvantaged partly by the system. Even when they are sent to the university partners, because they have a 'BAME name,' the partners reject them. White students many times do not wait for recommendations for placements; they come forward with the names of the places where they want to go for placements.

It can also be negative if the student goes to the industry and encounters a culture that is not good. That can be quite discouraging.

Sometimes however, not going on placements can be as a result of BAME students choosing not to participate even when the university is willing to assist in securing places for students. Certain responses from the interviews suggest that this may be the case because such students are interested in graduating and view placements as an extension of their time at the university. This is exemplified by the following statement from a participant,

At the undergraduate level, some BAME students don't want to go on placements even though it is to their advantage. BAME students usually want a quick fix – go to university and graduate.

In summary, work placements are beneficial for obtaining a good degree. They contribute to the DAG, however, because of the barriers that BAMEs encounter in gaining access to placement opportunities, consequently missing out on its benefits, or because BAMEs sometimes refuse to go on placements because they do not want to 'waste' time doing placements.

Teaching and assessment methods

Teaching and assessment methods are very important in HE and as demonstrated from literature, both impact the DAG (Singh, 2011 and Richardson, 2015). As a result, academic staff need to understand the DAG and strive to embed race equality in their teaching and interactions with students. It was surprising to note from the analysis of quantitative data in chapter five that 44% of students and 40% of academic respondents disagreed that teaching and assessment methods contribute to the DAG. A further 29% and 37% respectively were uncertain about the impact. Only 27% of student and 23% of academic respondents agreed that the DAG was impacted by teaching and assessment methods. Perhaps this is because of the notion that universities operate in meritocracy and traditional teaching and assessment methods have been in place for a very long time and there is no segregation of students according to ethnicity in classes. This may indicate that although the awareness of the DAG has improved especially with organisations like the OfS and UUK 'shouting' about it, many are yet to really understand what it is and what it entails.

The advantage of the use of MM gives greater insight to this factorial explanation for the DAG. Several of the BE sector leaders were of the opinion that teaching methods may not have impact on BAME students' attainment because the teaching methods are basically the same for all students as students are not segregated in classes and the students have come through the same educational system. There shouldn't be any difference. However, one interviewee stated that although teaching methods are the same for everyone, from what he had observed over the years, the problem may be with the lecturer's instincts about particular students.

BAME students involved in the FG discussions however indicated that teaching methods can have an impact because how one is taught makes a lot of difference. Some teachers they stated do not know how to explain things so that all students can understand but they need to be that inclusive and make time for students in workshops. One gave an illustration of a particular module that students were doing badly in although the students got firsts in other modules. When the lecturer was changed, the new one was better, and students understood the module and passed well. In addition, attainment would be better if more practical work was involved and not just theory. They would also like lecturers to teach students without the assumption that the students have a prior knowledge of the subject and while being technical, there should be a limit to that technicality. This was particularly important to some of them because they were reticent to ask questions in class to clarify issues. As one student said about some lecturers,

Some of them probably don't expect you to have any questions as a black student. They just speak over you. It looks like they're always pushing us

to the back. Whenever we speak up, it is not taken seriously. In one of my level 2 lectures when the lecturer is teaching and I raise my hand, he will ignore me and call other names because I am outspoken and black; because I speak the truth and I am not supposed to be heard.

Furthermore, one of the BE sector leaders asserted that teaching and learning need to be improved for all students. Traditional teaching and learning methods for example, tend to be quite didactic and so can be very boring and unengaging. Since people respond basically in the same way irrespective of their ethnicity, if lectures are delivered in a positive way, all students will attain better. Consistent with this, other participants argued that,

Delivery is across diversity and should be done without targeting one person or one ethnicity. It helps to bridge the gap. The teaching method is not only for the BAME community. It improves all students' learning. There are different learners and so the same style should not be used. There should be a variety so that people can learn differently. There are people who are doers, others are visuals.

Teaching should change from being teacher centred to student centred as their learning becomes priority. Delivery is for the students to learn not for the teacher to teach. In teaching, the students are talked at but now, it doesn't work. Students pay a lot of money and don't want to be taught; they want to learn. Teaching methods should achieve learning that is across the classroom. One can target the minority group and then the whites lag creating another problem. Teaching should cut across board capturing everybody in their learning.

A major area of concern was assessment methods. While assessment methods are not standardised and can vary across HEIs and even departments in the same HEI, there are major similarities as findings indicate. Participants were in agreement that there should be changes made to assessment methods to reflect the changing times. For one institution, assessments involved lots of essay and they noticed that BAME students struggle with essay-based assessments. This was not because they did not know English as most were home students, but because of poor English language skills. This therefore impacted their attainment. On the other hand, as another participant argued, while white students tend to do well in critical writing and referencing from his experience, they do poorly where analytical skills are required. BAME students however, tended to do better in the use of analytical skills.

It was also noted that it is very crucial that pedagogic styles of education have more understanding of lived experience as one interviewee stated. Instead of dismissing what people bring to the table through their experiences, these are incorporated into the assessment process and will be a vital input for people who will go out into the profession. Using Architecture as an example the participant further argued that,

There are different kinds of pedagogic understanding of what is being assessed in students and how students can actually produce a presentation whether it is in physical design work or written form. It is the design work that students mostly struggle with, and it has the largest percentage of activities that are undertaken in Architecture degree. It can be be very, very tough experiences for students when they have an incredibly negative critique. And you can have professionals who can comment on students work in a really negative way, without any due concern for people's experiences.

Where a university or BE department or faculty did not make use of anonymous or blind marking, there was the indication that that could disadvantage BAME students. Some BAME students noted that lecturers can judge by names, the way the assignment or examination is structured and identify that a student is from a BAME background and mark them down. It is not uncommon as a DAG expert confirms that,

There's certainly some truth in the fact that students consistently from minority backgrounds complain that they are being marked down and there's some research that would support that view. Various studies have been done where maybe the same assignments have been marked, where one marker has been told that these are from certain ethnic background and another not and then you get different outcomes.

Another consensus among most participants was that one mode of assessment should not be employed because some people are good at writing, some people are not. The nature of the module should determine the assessment method. They argued that examinations might not be the best form of assessment for some students and that some students preferred coursework. They would therefore like the combination of both in assessment. One participant among the sector leaders observed that lecturers sometimes do not like to use more than one method of assessment because,

It creates problems. We have some lazy staff who like to use course work only. When they prepare the course work, they don't have to prepare the answers and need to mark only once. Whereas with the 50/50, one needs to prepare the course work as well as the exam and mark twice and enter the marks into the system twice. If any student fails, both have to be done again. So, they adopt the 'make life easy for yourself' method of only coursework which puts the students at a disadvantage.

Anothe stated,

I think exams just test one aspect of one's ability. But if you have variety of different assessments, and you have a variety of different teaching methods, then you're more likely to create something that everybody can excel in.

Findings also show that many participants would prefer assessments to involve mixing students from diverse ethnic groups so they can learn from each other and see how things can be done from different perspectives. BAME students however observed that even when students are mixed for group work, racism comes into play and students form groups according to their ethnicity. One student had this to say,

Racism comes to play when students are given group work. We discover that students flow according to their ethnicity That's my experience as a student. You will discover that all the white boys who are working in the industry, who have valuable experience to share with the BAME students will not want BAME students in their group. It's the reality of the situation.

So, racism is an issue that should be addressed. How it should be addressed, don't ask me. The lecturers have a role to play, but honestly I have been in situation as a student and I see students being allocated to different groups for group course works, and it just flows according to ethnicity, which shouldn't be.

Another student in that FG added that,

The lecturer may try to mix them up but still they will work according to how they want to work. For example, we have seen situations where the lecturer puts five students - two Blacks, one Asian, two whites in a group.

The white boys will take the part they want to do, the Asian will take the part they want to do, the Blacks will take the part they want to do and at the end they would jam it together and submit. They have not actually worked together.

It was also noted that assessments need to be fair, concise and measure what they are supposed to measure, and that everyone should be able to understand the assignment so that no one is hindered from achieving their best. A participant in the semi-structured interviews for example stated,

I am a strong proponent that building measurement, quantity surveying measurement should be 100% course work because in real life, nobody will tell someone to take those measurements in 2 hours.

6.4.2 Research question 2: What is the impact of institutional understanding (within the BE) of the DAG, teaching and assessment methods, curriculum and organizational culture on BAME student progression and attainment?

Understanding within the BE

According to the findings from the survey, there is a great institutional awareness of the DAG in the BE as almost all the academic respondents knew about it. Only one respondent did not know about it. However, most people who were aware of it knew very little about it, and less than a third knew a lot about it. This demonstrated that there is a significant disparity in the levels of understanding of the DAG issues and the related lived experiences. Findings from the interviews were quite similar as most of the leaders from the HEIs agreed that staff were now more aware of the gap, but majority were yet to understand it. There was a very uneven awareness. Some were treating the DAG in the same way they treat EDI issues, with no special emphasis on it. For some institutions, they were just beginning to address the gap. However, a few indicated that their staff had good understanding as well because of the education about it that had gone on. Below are excerpts from what some of the participants had to say:

I don't think they understand it particularly well. I just recently challenged them on the degree awarding gap because I don't think they understood the data..... I don't think that there is the awareness that there should be amongst academic staff.

I think there is a long way for the British universities to go in relation to making colleagues and staff aware of these issues and train them in these issues and to be able to deal with these issues much more effectively.

Awarding gaps are not just taken as a sort of a single sort of assessment criteria. They are clearly part of an EDI process of critical assessment and improvement.

I have decided to talk about it within my team to know that this is there, and it is not something that we can hide from. But we all can play our part.

So, I think our staff are aware because I have I have done a lot of education on it.

The relationship between the level of awareness and knowledge can be examined using the responses academics gave about personal interventions to close the gap in their subject area. Majority of the responses were categorised under 'inclusive learning' and 'embedded equity and justice' while some academics had done nothing. This is interesting as 68% of those who were aware of the DAG knew little about. Sometimes the interventions mentioned were institution-wide or department-wide and not solely for the academic's subject area. It is obvious that there is some disparity between the degree of knowledge and the interventions put in place by the academics.

So, there is an increase in the awareness about the DAG, which is commendable, but this needs to be translated into knowledge and as one of the experts in the DAG discourse said,

The APP is forcing us to do more, and our students are now being more aware, student unions are being more aware of this. And the Board of Governors of Universities and Senates are being more aware of this, but it hasn't translated to that real improvement in the positive direction.

Teaching and assessment methods

As noted in section 6.4.1.2, most academic respondents in the survey disagreed that teaching and assessment methods had an impact on BAME students' attainment whereas the interviews indicated that many BE sectional leaders opined that teaching methods would be

the same for all students as there are no segregated classrooms (there might be problem may be with lecturer's instincts about particular students) but acknowledged that assessment methods had impact on the DAG. One of the participants in the expert category argued that lecturers need to personalise a student's journey to bridge the gap between a teacher and the learner in the learning process for example, assessment deadlines have to be reflective of all students. Some BAME students have to work in addition to their studies. He asks,

Why must all 30, 40, 50 students in the class bring their assessment to the teacher at the same time? Are all marked same day? Why should a student stay 3 hours in an exam hall writing an essay? Is that what is done in Architecture or Building? Sit down at a desk and write for the next 3 hours? If someone fails just one section when they must answer a question from each section, then they have to repeat. Why? Do we really understand the learning outcomes we are expecting from the students?

One participant from the experts interviewed was quite radical in his suggestion which is probably true. For him,

Assessment practices, I certainly think that traditional exams have no use whatsoever. Not quite sure why we still take them. The argument for those exams is that that's the best way to measure what the student knows. Well, I'm not sure it is because if you look at most research, when you put people under exam conditions they don't perform as well as they would if they weren't under exam conditions, and the only time you experience exam conditions is in exams.

Assessment methods also affect students' retention and progression. It affects their grades in school. Another participant in the interview stated that,

When you have somebody who is not happy, who feels that their best is not recognized who perhaps, rightly or wrongly, feels (and part of this is how people position themselves as students) that they're not getting the kind of assessment marks they have to get, and you put them in the situation where they wonder whether there's something going on, it affects their progression. And of course, if people are not progressing from one year to another, and even if they are progressing, they are barely, barely passing, then their attainment, the final degree outcome will not be what they want it to be.

Some BAME students according to findings, just get overwhelmed, decide either to drop out of school, or just carry on in order to pass without giving their best. In other cases, the student may fail and be withdrawn by the school board.

Curriculum

Curriculum design and content has been discussed in section 6.4.1.2 as a contributory factor to the DAG. This section looks at the understanding of its impact on BAME students' progression and attainment. Responses varied evenly among academics in the survey as one third agreed it has some impact, one third disagreed, one third were uncertain of what impact it made. Interviews with some leaders from BE sector of the HEIs also demonstrated varying convictions not with the impact per se but with what can be done to make the BE more equitable and inclusive. So, the interviews generally showed that there is the understanding among leaders in the BE sector of HEIs that are issues with the curriculum that affect BAME students' progression and attainment. If the students do not see the curriculum as relatable, they may not wish to continue with the course. The following quotations from two participants express this,

I think how you frame curriculum, what you include in the curriculum can disenfranchise the student, if they can't see themselves within that curriculum then they don't feel connected to it.

The curriculum delivery and design in itself matter because how you design and deliver it actually can eliminate around 50% of some problems. It is the foundation of what we do. It plays a major role. If the students understand what they do, they build confidence out of it, enjoy what they are doing throughout, and one can see them progressing. But if the curriculum is designed to favour one side, then it becomes difficult.

The fact that only one third of the academics saw a relationship between the curriculum and BAME students' attainment or progression indicates that more needs to be done if the needed change is to happen.

Institutional culture

Under the literature review, it was noted institutional culture involves the way an institution acts and thinks, unwritten rules of common values, language and norms that shape people's actions and attitudes on an individual and group level. The culture of an institution affects the organisational structure as actions including employment and admissions are shaped by its

culture. The organisational structure affects the decision that are taken within the institution. As noted earlier, many HEIs have very few BAME staff at strategic positions and this invariably affects the degree of attention given to the DAG and the impact it has on BAME students. An example from the findings, is a case where a BAME student failed a few times and was asked to withdraw but in the same department a white student had the same problem and authorities wanted something done to help the student.

Institutional culture plays a vital role in student progression as well as in attainment and one way it can do that is in the provision of an environment in which the student can thrive. This is highlighted by the following responses of participants in the interviews.

one of the key factors that's consistently emerged in terms of what affects the awarding gap is whether the student feels a sense of belonging; whether the student feels part of the institution, feels comfortable, feels that they're able to trust. I think that organisational culture is critical there to make them feel safe and to belong.

Universities perhaps are not doing as much as they need to do. We are not taking account of the student voices as perhaps we would want to do, and we are not drawing from lived experiences and taking that seriously and wanting that to guide us in our assessment regime and in how we put forward our strategy on learning, teaching and assessment. The cultural positioning of the university is important, setting clear targets are important, finding those who are leading and holding people accountable and responsible are important.

6.4.3 Research question 3: What interventions if any have been put in place in the BE sector to enhance equality of opportunity and outcomes and what impact have the interventions had on differential outcomes?

Findings from the study using MM identified several interventions or measures put in place by HEIs to eliminate the DAG. The levels of these interventions varied, as did the stages at which HEIs were, which is consistent with the findings of UUK and NUS (2019). The interventions from the findings could be classified under five categories:

- Assessment methods

- anonymous marking and second marking
- examination and coursework
- general
- Institutional leadership
 - strong leadership
 - diverse workforce
 - disaggregation of BAMEs
 - Race conversations
 - unconscious bias training
 - making it a KPI
 - support
- Learning environment
 - corroborative
 - decolonisation
 - engagement with the BE industry for BAMEs
 - mentoring
 - safe spaces
- Placements
- Student voice

6.4.3.1 Assessment methods

According to the findings, several institutions had improved their assessment methods by adopting anonymous marking and/or second marking as a means of enhancing equality of outcomes. Anonymous marking gave BAME students more confidence of the fairness of the assessment although some cited that the style of writing could still give away the ethnicity of the student. The system of double marking is also used to enhance fairness and reduce unconscious bias. A participant gave an illustration of how anonymous marking mitigates unconscious bias.

What definitely can happen with staff is they can kind of build some rapport with students in their class and they like that student who turns up every week and asks all the questions and keeps the energy up. But if they're also really rubbish, then really to be fair you shouldn't be giving them marks just for turning up and being happy and engaging because that's not what they're getting their degree on. And probably that kind of person will be screened out by anonymous marking because you wouldn't know who they were, so you would just have to mark everybody the same.

As discussed earlier, the use of more than one assessment method to be fair to everyone was seen to be effective for HEIs where this was practised as exemplified by the following statements from interviewees:

Those students that come from Asia and Africa seem to have good mathematical foundation. And that helps them to do very well in terms of analytics, in terms of problem solving, in terms of courses that are technically inclined. In most of my assessments for modules I teach, I make sure the overall assessment is 50/50 - 50% coursework and 50% exam. The whites tend to do very well in writing, in terms of referencing, critical writing and the like; but when it comes to analytical skill, they tend to do poorly.

When I do assessments, I actually allocate teams randomly and as a result, that's something that I hope reduces that effect where you have students then working with a broader pool of classmates and meeting more people, expanding their networks within their cohorts, and hopefully they're learning improves as a result of it. We also are making conscious effort to randomize group work in general, so not allowing students suggest cluster themselves within their coursework, along the same friends they've already met from halls and who are already living close to campus.

So I prefer randomized group work.

We have some part time students, we have some full-time students and some degree apprenticeships. When you put them in a group, the support that is available is often very good. It allows full time students (the 18-year-olds) to benefit from the experience of those who are working in the industry, who are more mature, and at the same time to make sure that those who are more mature and more experienced are not disadvantaged because they're in a particular group.

The study also found that certain HEIs from where the participants were drawn had other beneficial assessment practises. One of the leaders pointed out that when assessment practices are modified because they do not seem appropriate, other students benefit as well, not just BAME students, since the practices are being improved on and are made more inclusive. The following statements from some of the leaders illustrate this:

To ensure clarity of assessment, we do have all sorts of processes which are kind of working to make sure the briefs are properly verified; so pre checked before they go out to students to sort of check, are they are testing the right things? Are they clear enough? Are they not too complicated? Unnecessarily complex? And that is working to some extent, and it will benefit students from all backgrounds including BAME students.

We do what we call feed forward. So, when you have a curriculum and assessment, you have to tell the students what the expectations are. What do you (the lecturer) want to achieve? In that case, you don't have one person who understands it in one way and another student who understands it in a different way.

We are looking at our assessments to see which modules and which assessments have more of a gap than others and then to figure out why and what we can do about that.

6.4.3.2 Institutional leadership

Interventions undertaken under this category were strategic and had to come from senior management.

Strong leadership: findings show that many leaders in the departments who were interviewed indicated that they had strong leadership at the university level and or department level who have bought in to the call to eliminate the DAG and so conversation about it are held at the leadership level. This is consistent with the advice from UUK and NUS (2019) to HEIs on how to close the gap. At one HEI a participant informed,

We have an annual successful plan that we report on for example, an appraisal objective around closing the awarding

gap. We've rolled that out to all of our heads of departments and principal lecturers who are responsible for student experience. So that's devolved right down, and everyone knows. We get the data on an annual basis.

Other examples of good leadership practices are indicated below.

This is from the top, and it is one of the Pro Vice Chancellors leading the initiative. In our school it sort of meets in the middle. It's come top down, but we had already started at grass roots level, had EDI group locally and had staff to have their own discussions and events about responsible metrics and decolonising the curriculum. So, it sort of fit in together.

There should be a target for every department and how they want to achieve the target. What are the objectives to achieve the target? So we set objectives for ourselves and set the ways we plan to meet the target.

The university takes it very seriously and we have been working very seriously on that and it is evidenced by the fact that in the past five years the DAG has been narrowing down, reducing steadily.

Diverse workforce: The majority of participants across the boards mentioned a diverse workforce as a critical factor that HEIs must implement in order to close the DAG. A more diverse workforce will also provide role models and mentees, both of which were deemed beneficial by the participants. Some student participants indicated that they already had good number of BAME lecturers, and this has helped them although some as noted earlier, said that the hiring of BAME lecturers was sometimes tokenistic. The following statements made by participants attest to the effectiveness of a diverse workforce as an intervention to close the gap in the participants' HEIs.

The BAME Network has a lot of people who are BAME staff who also help the students and students can relate to them about other stuff.

If someone has been in those shoes, they can help the students, they can align to it because they have the same cultural training, cultural background. It is hard if one is speaking to someone who does not understand where the student is coming from.

It was mentioned earlier in this chapter that some participants argued that diversity was not just about having more BAME staff but having them in strategic positions. It is noteworthy that some HEIs were already working to have more BAMEs in strategic management positions as indicated by one participant's submission:

There has been a surge in the minority staff not only in lecturing, but also in the realms of leadership.

Disaggregation of BAMEs: This is very desirable from review of previous literature as BAMEs are not homogenous so that interventions can be more effective. Very few of the HEIs whose staff were participants were disaggregating BAME students and for some, the interventions were generic for all students. For one institution, the interventions were individually targeted as the BAMEs were very few. Similarly, another institution with not so low number of BAMEs equally target BAMEs who are seen not to be doing well, find out what the problem is and give necessary intervention and it works. One participant stated that,

If it was academic, we had drop-in surgeries where they could go. The surgeries were resourced mainly with BAME staff because it was targeted, and the students could feel more comfortable to share some of their experiences.

According to one participant from one of the institutions that disaggregate BAMEs, that is done at the university level, but the disaggregation is into Blacks and Asians for the meantime. They observed that although the DAG applied to Asian and Black students, it was more significant between the Black students and the white students. This is consistent with previous studies on the DAG across disciplines as noted in Chapter Two. Quoting the participant,

On the issue of success, we look at the Blacks, we look at the Asians. It is about the blacks more.

Another participant noted that,

Disaggregating is done at university level and not at the school level.

That analysis and segregation has been done to ensure that interventions work.

Conscious and unconscious bias training: Findings showed that although many of the staff in the institutions from which participants came had an understanding of what these biases mean and how they can affect students' grades, several participants stated that they were not yet well understood among their staff. A participant called it work in progress. Another participant observed that there has been a greater understanding and appreciation of the challenges that visible minorities face especially after the George Floyd protests in 2020.

All the institutions had compulsory unconscious bias trainings for staff, some just starting and others well underway with it. In some places, they had a requirement of an online professional development training for all staff related to unconscious bias and others had the training as an annual programme. While this is laudable, some participants were a bit cautious about the effectiveness of the trainings as can be seen from a few quotations below.

How those trainings play out is what I cannot tell. I cannot tell how they influence decisions.

Unconscious bias training is mandatory, but it would be difficult to measure how it is put into practice.

We did an unconscious bias course by someone from professional development, but I think we should do it again.

Colleagues were actually surprised by some of the examples of unconscious bias he showed. It was an eye opener for most of them but they walked away forgetting.

6.4.3.3 Inclusive learning environments

This section discusses some of the interventions being deployed by BE sectors of HEIs revolving around creating an inclusive learning environment.

Blended learning: As mentioned in Chapter Two of this thesis, universities used online learning as a result of the pandemic, but after the pandemic, face-to-face learning returned. Although most learning is no longer online, some universities have used the 'gains' from the pandemic for a more equitable learning by employing blended learning, such as having large theatre lectures online. One of the participants from such universities observed,

There are some benefits that we saw during the pandemic, and we want to build on them. One of the things we are looking into is with large lectures. Why bring everybody together physically? This can be done online but supplemented with small group discussions or workshops.

Corroborative and active learning: The use of SCALE-UP an innovative intervention was reported by one university. SCALE-UP is an acronym for student-centred active learning environment with upside-down pedagogies and refers to learning environments that have adopted active, collaborative learning in a way that differs from standard classroom processes and layouts. The participant further explains that the BE were introducing SCALE-UP across all of their courses and such good, inclusive, active and collaborative teaching helps everyone. He states,

The evidence of the research here shows that more active and collaborative learning as opposed to traditional didactic lectures reduces the awarding gap. So, we've got a target as a university to see an increase in active and collaborative learning Scale-Up teaching. So, we have been doing that as a school. We have a strategy to see 50% of our courses have scale-up delivery probably in the next 5 years. So, we think it does make a difference.

Decolonisation: Decolonisation of the BE curriculum is an area that is shrouded with less clarity than in some other disciplines. Many academics find it difficult to understand what aspects of the curricular need to be decolonised except perhaps for Architecture which literature and many participants have demonstrated is profoundly ingrained in exclusivity and racism. Interventions therefore for many participants revolved around inclusivity rather than decolonisation. Many were still trying to understand what is needed. For the ones who had started to work decolonisation, an illustration is provided by a participant who stated that,

One of the things that we're also trying to do is decolonising the curriculum where we are trying to have a much more inclusive curriculum than we currently do and think about the sources that people rely on. One of the things that we're trying to do – is to be much more exposed, aware of the biases in how we present things. There's some basic things one can do - some very simple things I suppose, which like use examples that are more global for obviously construction goes on everywhere. Drawing examples from around the world so that people can see themselves reflected in the course materials is an important part.

The participants go further,

Also, it's looking at the range of authors that we're using to see that we're not all only using white authors. I think that's not always going to be easy to do because some of the well, some of the main thinkers in this field are XY and Z, and they happen to be white. But I think there's more digging to be done because it's easy for people to say that, but there's probably lots of people whose work has not been properly recognized. So that must be part of it as well.

Another participation argues however that,

Much of the literature in the built environment sector are written by western authors. I can argue that those from the BAME background have not done enough to propagate literature from our perspective. It is important that minds are decolonised.

While one can argue that authors from BAME backgrounds have not done enough to propagate literature from their perspectives, it is also arguably true that the onus is not on them to propagate their literature because in a world where education is Eurocentric, such attempts to propagate a different perspective can be 'drowned' by those who determine what is acceptable knowledge. As previous studies suggest, where such authors are 'invisible,' they need to be sourced out.

Mentoring: Mentoring was one of the top-rated effective interventions to close the DAG by all participants across all methods for data collection and analysis. Findings also indicate that this is going on at different institutions at different levels. One hindrance in some places was the lack of sufficient BAME staff to mentor BAME students and as previous studies have indicated, BAME students understandably like to be mentored by BAMEs.

Many participating leaders in the BE stated that they used BAME-to-BAME mentoring that informed the students about some of the challenges to expect. To facilitate this, some ran leadership and mentoring programmes. BAME students indicated that mentoring is very good and boosts confidence. Even a few who had had no mentors acclaimed its effectiveness and shared how they had been to others despite not having had mentors.

Apart from having mentors from among the academics, both staff and students in the study further stated that student mentorship was also very good. According to one staff participant,

Every student in level 4 (first year) will have a mentor, somebody from level 5 or 6 will be their mentor to be able to support them.

From the students' perspective, mentoring is good as is evidenced by the following statement:

There is a lady I know on apprenticeship degree course. Whenever I go into a new year, I would ask her, 'what do I need to watch out for?' So before starting one of modules, she told me I needed to work really hard, because it was not the easiest course. So, I get that heads up from her and that's really good. I have so many people in my company who graduated from our school, and I go to them all the time. One told me that construction planning is very hard, and I need to work hard.

It is noteworthy that one of the students' observations was consistent with what one of the leaders interviewed stated about BAME students being less critical than white students in writing. As a remedy, having good mentors from the start of HE for BAME students helps to address this as indicated by this response,

BAME students should be giving better mentoring opportunities, from the day of arrival at the university. Critical analysis is very important, and one has to question everything: in your write-up, the way you answer questions for example. If BAME students are given

mentors: lecturers and other students, it helps to smoothen the opportunity of understanding what critical analysis is all about.

So, mentoring does a good job.

Some students also said that they created mentors for themselves from their circle of friends that helped them to succeed as is exemplified in these statements:

I have a group of friends. I kind of see them as mentors in a way because a lot of the time I don't understand things, but they'll sit me down and explain in a basic way totally different from how the lecturer has explained it, in a way they know that I will understand.

So, I have mentors within my circle of friends.

I miss my third-year students. I had a group of people that I was with through the whole journey. It was about seven of us and we were just all amazing, young, youthful black people. And within that group, we would talk about our experience during the day, and I've always been a mentor to my university friends. It helps through university, if you have somebody that you can go to, sit down and just have a general chat with.

Another mentoring perspective which was adopted in some institutions was industry mentors. Some professional bodies also indicated that this was one of the ways that they gave assistance to what the HEIs were doing to close the DAG. However, some students stated that their universities were more focused on staff mentoring than combined mentoring which included mentors from the industry. They opined that having mentors from the industry is also very important and very useful to BAME students. This helps to get BAME students into the industry.

Safe spaces: Another intervention used by many institutions is the provision of informal and confidential safe spaces where students and staff can talk freely about issues they are having and ask questions and be informed.

6.4.3.4 Placements

Placements are very important in practical-oriented courses as in the BE. Most institutions agreed that this was available for all students irrespective of ethnicity ranging from a month to

a year. Findings from previous studies indicated that as vital as this is for the sector, many BAMEs found it difficult to get placements in the industry. Some universities work in collaboration with their industrial partners to provide placements for their students while others leave the students to source it out. In addition, some lecturers announce placement opportunities in the sector that they are aware of in class. For some who leave students to source placements out, the universities arrange for organisations to come to the schools to recruit students.

According to the findings, even when institutions provided placement opportunities, some BAME students did not take advantage of them because they wanted to finish their study and look for employment. As leaders in the department said, this is completely unjustified because most students who go on placements not only perform better academically but are frequently offered work in such organisations.

6.4.3.5 Student voice

This is a well acknowledged intervention that helps to mitigate the DAG according to previous studies and the findings of this study. Most universities acknowledged that there are all sorts of mechanisms in place for any student to have their voice heard such as student representatives, the Students' Union (SU), pastoral care, through the academic structure, Central Services, BAME society. Some are very passionate about student voice, have really organized communication with the students and provide some more training and experienced staff for students in the first year.

While BAME students generally agreed to the availability of these provisions, they stated that many times nothing is done about what student voice out. A few quotations from participants are provided below.

They will pretend that they are listening, but they are not.

They throw everything through the window.

There are a few things that we mentioned like something that happened in a year but they were never fixed. We had certain tutors that as a whole, the class will talk about their understanding of the delivery of the lectures and these issues were taken forward, but they were never solved.

In the first and second year we had several temporary lecturers, and it was just a bit difficult to get through. We told the course reps, we told senior lecturers, we told quite a few people but just nothing was done about it. And we just had to like, get through it.

There's no level that I have not been to. I have been to the Dean's office and everywhere, but it has not worked. There is a difference between someone just listening to you so that you don't complain further as opposed to someone listening and wanting to do something. They listen and say, 'Oh am so sorry that you had to go through that' and do nothing. You go away and that's it.

6.4.4 Research question 4: What strategic initiatives can be adopted in addressing the degree awarding gap in the BE to make the desired sustainable change happen?

This last research question will be addressed in the next chapter - Framework for closing the awarding gap.

6.5 Chapter summary

This chapter discussed the data analysis presented in Chapter Five. The conceptual framework and emerging themes from the triangulation of all data were reiterated and the discussion was based on the conceptual framework, the four emerging themes, research questions and previous contextual research.

The research questions were addressed and for research question 1, the conclusion was that indeed there is a DAG between BAME students and their white counterparts in the BE and this varied greatly across institutions and courses with the DAG being greater at institutions with high number of BAME students. This is consistent with findings from previous studies. The factors contributing to the DAG in the BE were also discussed with reference to findings from the literature reviews in chapters two and three. Again, this was consistent with previous studies with the addition of placements opportunities and greater emphasis on the role of racism and biases. Other factors were discussed as pertinent to the BE.

In addressing research question two, it was discovered that while most people in the BE in HEIs were aware of the DAG, there was insufficient knowledge about the DAG and the impact

of teaching and assessment methods, curriculum, institutional culture on BAME students' progression and attainment. Overall, there was insufficient data driven evidence for the sector as most relied on centrally generated and managed data which sometimes did not provide needed granular data.

In answer to research question three, many universities had in place some interventions to close the DAG and while some were directed at the DAG, most were generic EDI measures. However, most could notice a reduction in the gap to varying degrees and a few were at the early stages of mitigating the DAG and could not evaluate the effectiveness of their interventions.

Research question 4 was not addressed in this chapter as this will be the subject of Chapter Seven.

7. Framework for closing the DAG in the BE

7.1 Introduction to chapter seven

This chapter addresses the fourth research question of this study which is: what strategic initiatives can be adopted in addressing the BAME awarding gap in the BE to make the desired sustainable change happen? In chapter two after a thorough review of literature, an initial conceptual framework was developed which guided the investigation into how to close the DAG in the BE courses in UK higher education. In chapter 5 the findings from the empirical study (deploying questionnaires, semi-structured interviews, and focus group discussions) were presented and then analysed in chapter six. This framework has been developed using variables from the findings from the literature review and the empirical study as a conceptual framework that will assist in the closure of the DAG in the BE.

7.2. Structure of the framework

This framework is structured around six measures derived from the results of three sets of questionnaires distributed to students, academics, and professional bodies, interviews with senior leaders in the BE sector of purposefully selected HEIs, and four focus group discussions with BAME students enrolled in BE courses. This is illustrated in Fig 7.1.

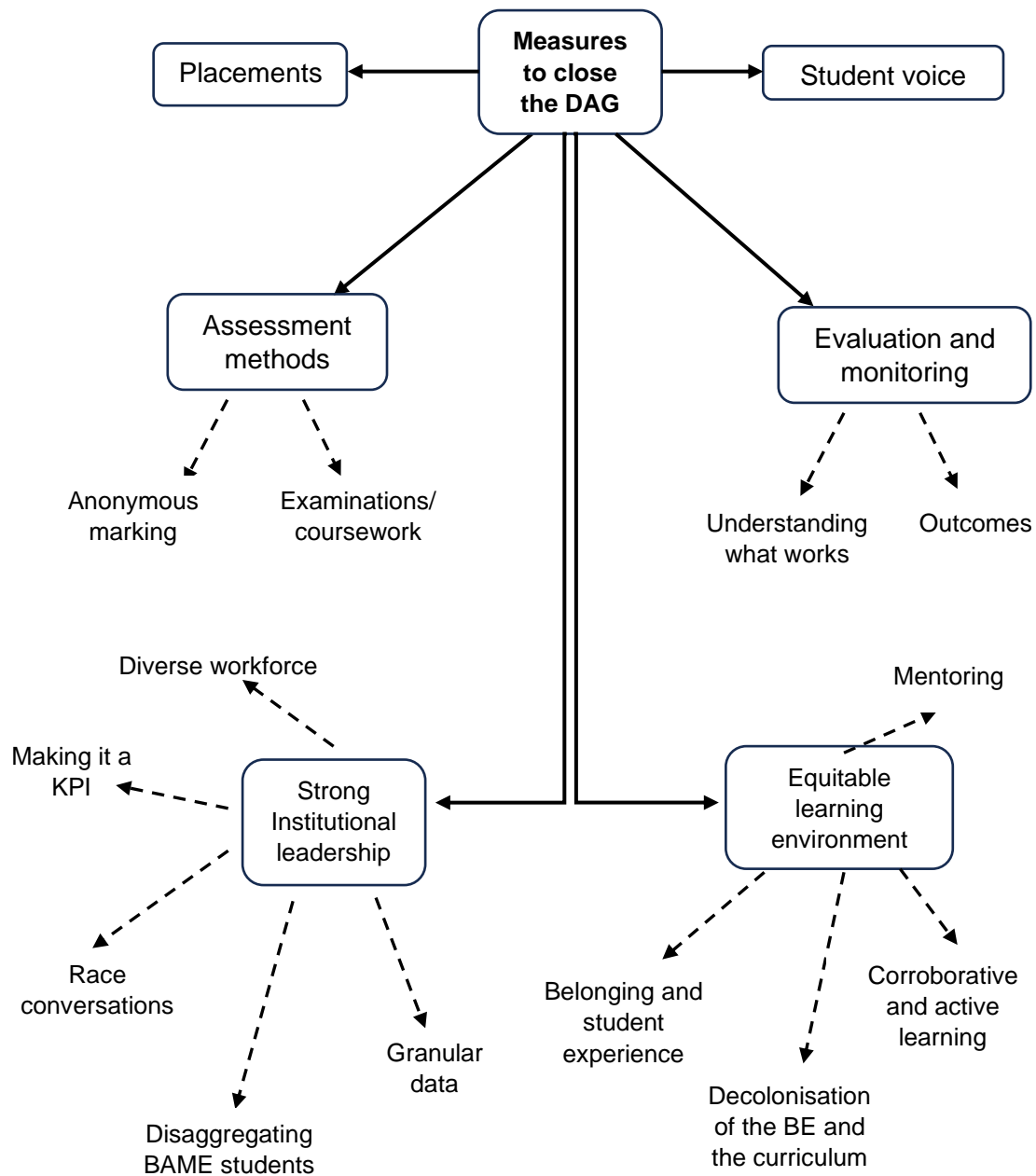


Fig 7.1 Conceptual framework for closing the DAG in the BE

7.2.3 Measures to close the DAG

The six measures that have been identified from the study capable of assisting in the elimination of the DAG in the BE are discussed below.

7.2.3.1 Assessment methods

The assessment regime in an institution determines the marks that students are awarded, and this in turn determines the degree outcome. Ineffective teaching, poorly written assessments briefs, timetables, and unconscious bias in the marking may sometimes be to blame for poor

performance rather than a lack of the necessary abilities on the part of the students. The main goal of educators is to support learning so that everyone can succeed, not to pass or fail students. From the findings of the study, one of the things that affect students' marks is their understanding of what the lecturer requires of them. Therefore, if the assessment briefs are poorly written, the students might fail to understand the assignment. Writing clear assignment briefs and giving good guidance and feedback to students will greatly impact their success.

As discussed earlier in chapter six, some students are better in certain forms of assessment and to be fair to all, it is important that assessments are flexible and have varied formats and enable students to have options. The use of examinations and coursework would generally take care of this so that the area of weakness can be compensated by the area of strength. This can help to validate student's experiences and ensure that there is maximal support for the student body.

Universities have their in-house degree algorithms for capturing students' performances from their point of entry into HE. As one of the study participants indicated, the use of the grade point average (GPA), which indicates how high a student scores in their courses on average can be used to reduce the DAG. However only very few universities in the UK use the system which can allow a student from the first assessment to know what degree outcome they are headed towards. It would also enable the school to implement timely interventions to assist students in moving up if, for example, their profile from the previous year indicates they are a 2:1 student but they are attaining below that in the current year. Using the GPA, the university can identify the module(s) where the student has problems and advise how that can be overcome. As it stands, universities in the bid to close their DAG can easily increase exit velocity by basing their degree classifications on the final year without taking into account the preceding years and so come up with many firsts and 2:1s.

One consequence of this is that there seems to be a doubt on the value of degree classifications because many employers now request students' transcripts given that more students are graduating with firsts and 2:1s. They see degree classification as the least best indicator of a student's capacity to adapt to a changing sector and world in which the value of critical thinking is queried in relation to the ability of being able to adapt and to learn. The ability to learn will likely be considered more valuable than any other talent.

7.2.3.2 Strong institutional leadership

As mentioned in chapter two, the elimination of the DAG in HEIs calls for institutional commitment which can only be attained by senior leadership accepting the responsibility of developing strategies, policies and initiatives judged pertinent to removing attainment differentials, and making sure they are implemented and sustained (Sing, 2011; UUK/NUS,

2019; Berry and Loke, 2011). This section discusses some of such areas that need to be addressed by effective institutional leadership.

Diverse workforce: It is widely acknowledged that HEIs in the UK lack workforce diversity particularly at the senior management level despite all the discussion about it and this affects how HEIs address the DAG. It's hard to believe that the UK only appointed its first black vice chancellor a couple of years ago. HEIs cannot advocate for inclusivity and diversity without becoming diverse first or else it is just nebulous talk. White leadership reproduces itself and BAMEs usually come into leadership when it is needful to portray diversity (as a marketing tool) or because the BAME staff is very good and excluding the individual cannot be justified. Consequently, there is lack of support from some HEIs for diversity and EDI is just a tick box exercise. An expert in the discourse about the DAG has opined that, 'the higher you go up within the academics, the more white supremacist they become. Our institutions are white supremacist institutions.'

Having a diverse workforce is very beneficial to the BE and means having more role models and perspectives so it is vital that the sector invests in diversifying its workforce.

Moreover, a diverse workforce is indispensable in today's world as indicated by McKinsey & Company's (2015) research investigating the workplace diversity of several countries which revealed a compelling business case for inclusive culture. In addition, they concluded that organisations with diverse leadership are more financially successful (McKinsey & Company, 2015). According to their findings, ethnically diverse companies in the top quartile are 35% more likely to outperform non-ethnically diverse companies in the same quartile.

Race conversations: Following on from the above it is very clear that HEIs have a high level of racism and as a participant observed, 'there are structures in institutions that adversely impact students for example, in universities, the academic regulations seem to be so complicated that even most academics don't understand them – the rules and the regulation.' Even without the DAG, having race conversations can be challenging. It is made worse by the DAG, since some individuals do not understand it while others do not believe it exists and consider it to be a political tool. Uncomfortable as race conversations are, it is very necessary that they are held and led by senior management so that students and staff can openly talk about it and any barriers can be broken. Leaders in the BE need to be proactive and challenge the status quo in addressing race issues and racism.

Making the closure a KPI: One of the major success stories about eliminating the DAG has been from Kinston University and this was mentioned in chapter two. Their success story shows that making the closure of the gap a KPI is very fundamental.

Disaggregating BAME students: It is important to recognise the diversity among BAMEs. The DAG varies within the ethnicities categorised as BAME as was observed from literature and in this empirical study. Disaggregating BAMEs will look at the gaps more closely and ensure that interventions are effectively targeted and take into account the experiences and needs of the students.

Granular data: Dealing with the DAG requires evidence and data and the more granular the data are, the better. This will help to understand the level of disparity that exists within the BE. The availability of such data varies among HEIs. One of the observations from this study is that some participants did not have this sort of data probably not just because the data were unavailable or inaccessible but because they had not requested for it.

7.2.3.3 Equitable learning environment

UK higher education has been on a trajectory of expansion and has been a significant achievement for more than two decades. The focus is now more on how the students granted access can be retained in HEIs, succeed in completing their degrees and move on to being employed – access for success. Several factors can determine how equitable a learning environment is especially for BAME and some will be discussed here.

Belonging and student experience: Student engagement and sense of belonging are vital to higher retention rates. Tinto (1993) posits that there is a relationship between the academic and social aspects of the interactive system called university and students are more likely to withdraw from HE when they are less integrated into schools and so feel isolated. This is consistent with the finding of Petrie and Keohane (2017). This includes the students' experiences within the classrooms as well as engagement with the wider university community. This has been demonstrated from this study from the responses of student participants particularly in the FG discussions.

Student engagement, however, is not the sole responsibility of the student and the BE must address any institutional barriers to BAME students' social and cultural integration because these barriers always have an impact on those students' retention, progression and success rates. Students are more likely to remain and succeed in HE if they become socially active in groups that reflect their culture and while such groups are usually informally created, HEIs can provide support by establishing and encouraging such associations to make sure that every student can feel welcome.

Decolonisation of the BE and the curriculum: The decolonisation of the curriculum is a major issue in the discourse about improving BAME students' retention and success rates as the curriculum is the primary means through which students are engaged academically. The contents of the curriculum of most disciplines in HE is dominated by the Eurocentric

perspectives which do not reflect diverse perspectives relevant and relatable to all students and are not very effective in preparing them for working in a diverse society. Findings from this study indicate that it is pertinent to diversify perspectives and value the experiences of a diverse student body so as to address inequality and maximise support for students' learning experiences and outcomes. Moreso, what is taught, who teaches what and how it is taught are vital issues for consideration in decolonising the curriculum. It is a holistic exercise.

In addition, people have the fear that decolonization is about removing things, but this is not solely what decolonisation is. It entails contextualizing and positioning things to bring in perspectives that speak to the currency of today. So, in a changing UK, the BE must make sure that its curricular are contextualized, address diverse perspectives, and reflect those who are drawing from the curricular. It is people who devise the curricular so there is need to also decolonize people's perception so that they think much more globally, and more holistically about the impact the curricular will have on those who use them. The people, the culture and the environment need to be decolonized to get a truly decolonized curriculum.

The BE relies so much on Architecture because that is where designs are done and from the findings of the study, the teaching of Architecture needs to be decolonised and de-Europeanised. A participant summarises this saying that,

Anyone who hasn't defined houses in other places rather than just out there, needs to be taken to other places to globalise their minds so that they can globalise the minds of their students.

Mentoring: Mentoring has the potential to be a very effective tool for inspiring, guiding, and supporting BAME students, and early intervention is widely acclaimed to be beneficial. To be more culturally competent, the BE needs to collect data about the ethnicities categorised as BAME and reverse mentoring could help senior management improve their cultural dexterity. Since many BAME staff already unofficially provide mentorship for BAME students (being the initial reference point for support), the BE can officially designate them to do same and BAME students like to have mentors from the same ethnic background (Dhanda, 2010). Mentoring should be more than giving advice; it should provide motivation and direction and be focused on the experiences of the student. As noted earlier in this thesis, Johnson (2015) points out that mentoring is very important and if an institution does not have role models, they need to look outside for them. Again, this should not be tokenistic, and care needs to be taken so that there is no isolation of BAME students or boosting of a deficit model (Singh, 2012).

Corroborative and active learning: With the emphasis now on the student, the BE, like other HEI sectors, is being challenged to reflect this shift and adapt to the constantly changing environment of UK higher education. This calls for a revision of traditional practices to create engaging learning spaces for students instead of transmitting the same knowledge they acquired through the same methods in a world with different dynamics. With corroborative and active learning, it's about the students' learning processes rather than simply what they learn, and the students participate rather than just listen to the teacher. Corroboration will help students to engage better and share knowledge with their peers and could possibly help in reducing the 'hoarding' of knowledge mentioned by some FG participants. From the findings, one of the participants stated that they are already doing SCALE-UP which is a form of corroborative and active learning and plan to introduce it in more of their courses.

7.2.3.4 Placements

Placements are very important to practice-oriented courses of the BE. This has been demonstrated in chapters five and six of this thesis, from the analysis of data and is beneficial to both the students and the industry. It enriches and motivates students to attain better and could possibly open doors of employment for BAME students who find it hard to get into the industry. Previous studies and findings from this study show that there are barriers to BAMEs getting work placements and while some universities facilitate the procurement of placements, others leave it entirely to the students thus disadvantaging BAME students who lack the social network that their white counterparts have to facilitate placements.

One of the interviewees stressing the importance of placements made the following statement:

Do the HEIs ask the students their experiences after they have been on placements? How inclusive was the environment? Are BE companies inclusive? If the university is not inclusive, the outside world most likely won't be either. No. I don't think so. Are they working on it? I think, yes. Everyone is trying to work on it.

The DAG gap within the sector will be reduced if the institutions come on board to mitigate this barrier and enhance equality of opportunity.

7.2.3.5 Student voice

Students voice refers to the process of students sharing their perspectives and values to leaders in HEIs. Despite being stakeholders in their education, students historically have little to no influence on decisions about it. However, the shift in focus to the student in HE has delineated the importance of student voice in their learning experiences and learning

outcomes so that HEIs leadership can listen, and act based on students' preferences and perspectives in a historically inequitable BE and HE.

Conversations with HEI leadership boost retention and attainment and increase student engagement because such conversations make them feel like they are a part of the decision-making process for their educational journey. Additionally, it enhances students' learning experiences and research by Quaglia Institute for School Voice and Aspirations (2016) shows that 'students who believe they have a voice in school are seven times more likely to be academically motivated than students who do not believe they have a voice.'

Furthermore, student voice improves equity by amplifying the voices of marginalised groups like the BAME so that HEIs are informed and take action as a matter of social justice. It is one thing to listen to student voice, but quite another to act on their expressed experiences and viewpoints. According to this study, most students believed that the schools did nothing after listening to them and that the process was merely a tick box exercise. In order to foster an inclusive learning environment, it is imperative that BE leaders pay attention to both BAME and other students. Therefore, the culture must be one of genuine inclusivity, one in which the student voice should be heard and valued and should inform the actions of the institutions.

7.2.4 Evaluation and monitoring

When interventions have been put in place, the leadership needs to set targets and monitor the progress of such targets. Monitoring will ensure that the intervention is working as it should or that it may need adapting; that it has the expected impact, and that the outcome is the desired outcome.

7.2.4.1 Outcomes

Closing the DAG is everyone's responsibility in the BE sector and involves a sustained plan that should be permanently ongoing and permanently embedded in the work of the institution. It entails systemic engagement and evaluation. While senior staff need to own and be accountable for the closing the DAG by driving institutional change and providing needed resources to remove racial inequities, it should be clear who has what responsibility at the implementation levels. Targets that are appropriate and in context need to be set about the closure and a monitoring and evaluation strategy put in place to see that the interventions are addressing the gap and giving the desired outcomes. The identification of potential distractions from the DAG and the addressing of such issues are also crucial.

7.2.4.2 Understanding what works

The complexity of the DAG makes it such a difficult problem to solve. As indicated in the literature review, there is no 'one-size-fits-all' measure for its elimination. Every institution is

different and while interventions that help have been outlined in the last chapter and in this framework, the application of such and the degree to which they can be applied are all dependent on the institution and the stage at which they are in the quest to close the gap. Every BE sector in the HEIs has to understand what works for them.

7.3 Chapter summary

Chapter seven dealt with the development of a conceptual framework for the elimination of the DAG in the BE sector of HEIs. The structure and components of the framework were discussed.

8. Conclusion and recommendations

8.1 introduction to chapter eight

This last chapter of the thesis presents the conclusion of the research and recommendations drawn from the research. The first part summarises the conclusion of the research based on the objectives of the research while the second part presents the contribution of the study and implications for policy and practice. The last part provides the limitations of the study and the consideration for future research.

8.2 Achievement of research aim and objectives

This research achieved its aim of developing a strategic framework for UK higher education institutions that will address the learning experiences and degree outcomes of BAME students in the BE courses thereby eliminating the degree awarding gap (DAG). The conclusions about the five objectives through which the aim was met are provided in the next section.

8.2.1 Objective one: To explore and analyse BAME student representation, progression and attainment in the BE courses in UK higher education in view of the DAG.

The research started with a thorough review of relevant literature first across all disciplines to get a detailed understanding of the DAG in the UK and within the built environment in chapters two and three. This was followed by an investigation of BAME student representation, progression and attainment within the built environment sector in HE through the use of questionnaires and semi-structured interviews.

The literature review identified the complexity of the DAG and its persistence despite decades of attempts to close the gap. It was noted that the gap lacked any definitive causes and initial studies attributed the gap to individual characteristics of BAME students (deficit modelling) but even after these factors were controlled, the gap remained, and ethnicity was a major factor. A shift was made from looking at the student to looking at the institutions. While there were many studies in many disciplines, there was a very obvious gap in the BE sector indicating that apparently no study had been carried out in that regard despite the significant role the sector plays in the economy of the UK and the acknowledged underrepresentation of BAMEs in the industry.

The findings from the empirical study showed that BAMEs were well represented among students in many of the HEIs (section 5.2.2) which confirmed the findings of previous studies. It was revealed that despite having this good representation, the attrition rate was higher among BAMEs than whites and the progression rate of BAMEs was less than their white

counterparts. In some institutions though, there was not much difference between the progression rates across ethnicities and this might have been because of the low number BAME students in those institutions.

While there was a DAG noted (see chapter six) in many of the purposively selected HEIs, the gap varied from one negative differential to 30-35%. The findings showed that the pandemic years might have affected the figures got within that period as some institutions could not be certain if the reductions they observed were as a result of the no detriment measures in those years. Quite a good number of the institutions though could not give granular data regarding retention and progression either because of the sensitivity of the data or because they were not available. The findings provide evidence that BAMEs are proportionately well represented in BE courses of many HEIs but that this representation does not translate to equitable degree outcome for them.

8.2.2 Objective two: To build an understanding of the issues that face BAME students in the BE courses in their learning experiences and to identify possible factors contributing to their degree outcomes.

To achieve the second objective, three research instruments were used: questionnaires, semi-structured interviews, and focus group discussions. The results of the empirical study detailing the experiences of BAME students can be found in chapters five and six. While the responses from the questionnaire for students simply had BAMEs stating that their learning environments were friendly, the focus group discussion allowed participants to share more about their experiences presented in chapter six. The students agreed that open racial abuse would be difficult to see in a university environment but that there was institutionalised and systemic racism which had an impact on their performances. These varied from lecturers being condescending, to ignoring them or to even marking them down because their names gave them away as not being white. There was an incident of a BAME student being asked by the lecturer what they were doing studying Architecture. Furthermore, the participants complained that even among the students there usually is a divide according to ethnicity when they did group work with the white students who had opportunities to work in the industry not wanting to be in groups with BAMEs who could benefit from such knowledge.

The factors contributing to BAME differential degree outcomes were considered in chapters five and six. These were consistent with previous studies thus reinforcing lack of role models/mentoring, curriculum content and design, sense of belonging and integration, student experience, leadership and institutional culture, racism and unconscious bias, teaching and assessment methods as contributory to the DAG. Additionally, lack of placement opportunities for BAMEs in the industry was found to be contributory. These factors though not having

overtly to do with racism, all had racial undertones which is why some people have described the DAG as a 'wicked' problem. They shed light on institutional procedures, structural procedures, and other aspects that surround the learning environment and the implied meaning of the responses from participants as demonstrated in chapter five indicate the need for:

- Changing the institutional culture and embedding issues of race in strategic goals
- Equity and social justice
- Diverse and inclusive environments which will be orchestrated by strong leadership that gets evidence through data and avoids deficit modelling.

8.2.3 Objective 3: To evaluate at the institutional level, the understanding of the DAG in the BE sector of HEIs and the commitment to addressing the differential outcomes.

This research objective was achieved by conducting a survey which captured information from the academics in HEIs and semi-structured interviews of leaders in the BE sector of some HEIs. The responses to the questionnaire were categorised into lecturers and senior management and their responses were tested in many instances to see if their roles had any impact on their perceptions of the issues being addressed. Almost all the academics were aware of the DAG but only about one third had a good knowledge of the gap. This shows that while the awareness about the gap has greatly increased, a lot still needs to be done for people to understand what it is about if the quest to eliminate the gap would translate into reality.

The responses showed that more senior management respondents had an awareness and understanding of the DAG than the lecturers. However, when it came to the factors that contribute to the gap, lecturers seemed more knowledgeable as their mean ranking was closer to the aggregate mean for all academics. This suggested that since they have more dealings with the students they had more understanding of the impact of those factors on attainment. Although the two categories had differing views about the contributory factors to the DAG, they mostly agreed on effective measures or interventions to close the gap.

The next instrument used to measure the understanding of the DAG were semi-structured interviews. Heads of departments/schools or their representatives were interviewed so see the stance of their BE sector. Findings detailed in chapters 5 and 6 show that consistent with the findings from the questionnaire, while people were more aware of the gap now because it is topical, many are yet to have a firm understanding of it at the institutional level of the BE sector. As a result, there is still much to do to address the gap as it has not been prioritised by many HEIs and they still need to go beyond well-meaning words on paper to making the

desired change happen. Chapters five and six additionally revealed that many institutions were at different stages in their quest to eliminate the gap. Some institutions were dedicated to the cause, while others still treated it as a general EDI issue rather than as a social justice one.

8.2.4 Objective 4: To investigate possible ethnic bias in the BE sector of UK higher education and the effect of perceived institutional racism on BAME student attainment.

Questionnaires, semi-structured interviews, and focus group discussions were used to collect primary data presented and analysed in chapter 5 and this served to achieve the fourth objective. Findings showed that there is 'ingrained racism and exclusionary practices' in the BE. Although there were some instances of overt racism, much of it was structural and systemic and embedded in the fabrics of the institutions. This served to justify the finding from literature review in chapter three that racism exists in the sector and ongoing racialised biases continue to position BAME students as the 'other.' Although most HEI stated that they had unconscious bias training in place, the effectiveness of the training was in doubt, and they had no way of evaluating this.

8.2.5 Objective 5: To develop and proffer a conceptual framework that will enhance BAME students' learning in the BE and improve their progression and attainment.

This last objective was achieved through the development of a framework that emerged from the combination of the conceptual framework from chapter two and the findings from empirical study. This was presented in chapter seven as a proposed framework to guide HEIs in practice and policies towards closing the DAG in the BE courses. Validation of the framework through its adoption by HEIs could not be carried out at this time as it does not fall within the remit of this research. However, a similar study by UUK and NUS (2015) reinforces the validity of the components of the framework in closing the DAG. It is recommended that HEIs perform the validation.

8.3 Contribution of the research

This study contributes to existing body of knowledge through the development of a conceptual framework for closing the DAG in the BE sector of UK higher education. This will provide direction and support to BE educators in HEIs in the urgent need to close the DAG, an equity gap which has long-term repercussions on BAME students.

As stated in section 1.3, the BE is a sector often used by most governments in achieving their macroeconomic objectives of full employment, housing delivery, and infrastructures and service deliveries. The sector also contributes significant backward and forward linkages with

the rest of the economy. However, despite much research into differential degree outcomes of students in UK higher education, there is no substantial study of the DAG in relation to BE disciplines and this study is a contribution to closing the 'built environment gap.'

In addition to almost no research on differential outcomes in the BE, as indicated by Cotton *et al.* (2015), there has been little research (including in other disciplines) on how university environments and student experiences affect degree outcomes of BAME students. Through the MM approach, this study has produced a deep and insightful understanding of the perspectives and values of BAME students in the BE, which should guide HEIs' policies and practises.

Furthermore, the findings from this study strengthen the reliability of recent studies proposing that universities need to look inwards for the contributory factors to the DAG as deficit modelling is no longer acceptable. In addition, the study validates the influential measures or interventions advocated by such studies for the closure of the DAG.

The promotion of equity is typically included as one of the core values of HEIs. This study therefore advances the discourse on the DAG which needs to be closed in all disciplines as a matter of justice and equity and does not require any social distancing.

8.4 Implications for policy and practice

This study looked at how to close the DAG in the BE sector of HEIs. While the DAG is of ultimate relevance to HE, it is also relevant to the BE industry as it has been demonstrated from literature and empirical study that most BAME graduates from the BE do not end up in the industry despite their preponderance in the courses in HE. This study therefore has the following implications for policy and practice at HEIs, BAME students and the industry.

8.4.1 Higher education institutions

There have been many changes in the demographic composition of student profiles over the last two decades and this challenges the status quo in higher education demanding a reflection of a globalised population with diverse needs, perspectives, and competences. This change has also affected the profile of home students as the demographic composition of the UK society has also become more diverse. Moreover, HE has become a 'saleable commodity' and a very profitable one with students as consumers, education as the product, lecturers as service providers and the university as the sellers and the marketplace. The BE needs to maintain relevance in this rapidly changing landscape.

From the study, it is obvious that the contributory factors to the DAG in the BE as in other disciplines of HE bother on structural racism or systemic racism be it lack role

models/mentoring, curriculum content and design, sense of belonging and integration, student experience, leadership and institutional culture and so forth. There is an indication of the interaction of policies and practices with culture and systemic privileges in HEIs which perpetuates inequity.

HEIs are supposed to be liberal spaces that are committed to racial equality so one of the implications of the DAG is an undermining of university's values and mission which does not augur well for HEIs.

There is also the disillusionment of the next generation of BAME students as they will wonder what is in it for them both in HE and getting employment in the BE industry.

Social justice and equality in all sectors of society are required by the legal frameworks operative in UK, so higher education providers should ensure parity and equity in their activities and harness the potentials of people from all backgrounds, and all communities should benefit from the opportunities. Advance HE's Race and Equality Charter stipulates that UK higher education cannot realize its full potentials without benefiting from the talents of the whole population and until people from all ethnic backgrounds equally benefit from the opportunities it affords.

8.4.2 BE Industry

While having a good degree is very desirable, it is only one dimension of student attainment because attainment goes beyond the degree outcome of student. It involves future attainment of the graduate – relevant employment or postgraduate studies and is a major driver for economic growth for the individual and the sector.

With the current global scrutiny of workforce diversity, the BE industry needs to tackle as a matter of priority, the longstanding underrepresentation of BAMEs in its workforce and remove any fear the white population may have about BAMEs taking over their jobs. Structures that monitor the progress of diversifying the industry need to be put in place.

8.4.3 BAME students

From the study, many BAME students were not aware of the term DAG and did not fully grasp the magnitude of the problem. They understood what the effects of the contributory factors had on their learning experiences and attainment, but frequently connected them to the concept of the deficit model. They need to be more cognizant of and knowledgeable about the DAG and its associated impacts on BAME students.

There is a demonstration from the findings that BAMEs need to realise the importance of the student voice in improving equity by amplifying the voices of marginalised groups. They tend

to keep quiet about issues that they have more often than not, and some even choose to withdraw from HE rather than raise issues that could have been addressed if they had spoken up.

8.5 Recommendations

The following recommendations have been put forward as a follow up to this study.

8.5.1 Recommendations to higher education institutions

Giving BAMEs more access to HE and preponderance in the BE courses does not necessarily translate to higher student retention rate, attainment of a good degree and progression to employment or further study. Improving the retention, attainment, and progression of BAME students in the BE courses need targeted and sustainable interventions, monitoring and evaluating the impact of such interventions and collaboration with the students in design and practice to ensure equitable outcomes.

With artificial intelligence (AI) transforming the world, HEIs can explore its use to improve the learning experience of students. AI can assist in identifying trends and patterns in learning and provide recommendations for effective improvements when necessary. AI programmes can also be created and tailored to help each student.

With the increased public investment in HE, there is a demand for HEIs to be more accountable to the public, which is not very consistent with the traditional idea of independence found in HEIs. People have also become critical of the traditional forms of knowledge in traditional organisations like HEIs (which keep reproducing inequalities like the DAG) and HEIs must adapt to the changing patterns by creating equitable learning environments for all students which helps them harness the transforming power of HE.

A few years ago, a government commissioned race report concluded that structural racism does not exist in the UK. The report is a stunning denial of a social reality that both the HE and the BE sector can identify with. Unconscious bias, racism and microaggression should have no place in any sector of the UK society and institutional barriers like policies, racism, microaggression and racial stereotyping need to be seriously investigated in HEIs. These injustices and inequalities are rooted in the fabrics of the society and translate to biases in HEIs, and they violate mission statements of HEIs. The study recommends having honest and open conversations about them, trainings for staff and students and taking actions against offenders as equality essentials that will bring about positive outcomes for all.

With the focus now more on the student, the learning process of all groups of students throughout the student life cycle is open to investigation. It is recommended that HEIs examine

barriers that affect BAME students' learning experiences, their progression and attainment, and often make them lose the transforming power of HE. It is important to know that student attainment goes beyond degree outcome. It involves students getting into higher education, staying in, getting on and moving on.

8.5.2 BE industry

The BE sector must see becoming an inclusive workplace as both an ethical requirement and an industry priority given the current global scrutiny of workforce diversity. To address the persistent underrepresentation of BAMEs in the workforce particularly at the management level, structures that track the industry's progress towards diversification should also be put in place. While some progress has been made in recent years to address this inequality, change and attendant effects have been very slow. Initiatives such as positive activities which are supported by UK law (like the Rooney Rule) could help to improve the underrepresentation and progression of BAMEs in the sector.

The diversification of the workforce could also bring some innovation as having different ethnic backgrounds means different perspectives and new perspectives can bring about better performance as the organisation will no longer stick to the old way of doing things.

There is the challenge of skills shortage in the industry, which Brexit helped to exacerbate. The industry needs to prioritise recruiting BAMEs from UK's diverse population as recruiting and retaining people from all backgrounds will assist the industry in ameliorating this and 'talent has no colour.'

Inclusive recruitment not only diversifies the industry's talent pool (including at the senior management level), but it makes business and ethical sense. An investigation by McKinsey & Company (2015) revealed a compelling business case for inclusive culture noting that diverse leadership are more financially successful than non-ethnically diverse companies in the same quartile.

The industry should consider providing BAME students professional mentors as this will enhance their success at school and progression into the industry at the completion of their courses. Similarly, if the industry and HEIs collaborate, the industry will be in a good position to specify the skills and competencies they want graduates to have, and students will be well-prepared. This in turn will challenge the perpetuation of structural inequality in the industry and the barriers driving them.

The application of theoretical information in a professional setting and the application of practical knowledge in a classroom setting are both facilitated through work experience placements, which play a key role in BE courses. However, BAMEs encounter barriers when

looking for placements, so the industry needs to collaborate with HEIs and offer assistance to BAMEs to level the placement advantage that the whites have.

8.5 Limitations to the study

The empirical findings presented in this research have limitations which need to be taken into consideration.

The first is the paucity of previous studies on the topic and related subject areas in the BE discipline. However, there are a number of previous studies on the DAG in other disciplines, including those done by government agencies like the OfS and Advance HE, and the researcher used these as a basis to build upon to achieve the research objectives.

Another limitation was the inability to recruit participants from other parts of the UK despite several attempts. England was therefore used as representative for the UK in the knowledge that the DAG cuts across nations.

There was also a very low response rate for the questionnaires particularly for the academics in HEIs even with so many attempts at reminding the potential respondents to fill it out. This was however compensated for by the richness of data gathered from academics in the interviews. The questionnaire for the professional bodies also received a fair response rate but as respondents did so on behalf of their organisations and not as individuals, it did not necessarily require lots of responses.

The research set out to use five HEIs as case studies so that all data would come from those institutions, however, because of the unwillingness of some institutions to release sensitive data, the purposive and snowballing sampling techniques were used. Perhaps the use of specific case studies might have given particularly more quantitative data for comparisons including between institutions.

8.6 Further research

A number of issues emerged from this study which will need further research. Further research could focus on:

- Exploring the success stories for BAMEs in the BE who have been successful in getting graduate employment in the BE industry;
- Evaluating the attainment of BAME home students against that of BAME international students in the BE;
- Validation of the conceptual framework developed from this study by one or more HEIs and monitoring and evaluating the interventions to confirm the results.

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Appendices

Appendix A Ethical approval

Decision - Ethics ETH1920-0056: Mrs Weluche Ajaefobi (Medium risk)

LSBU PGR Manager <do-not-reply-pgr-manager@lsbu.ac.uk>

Thu 20/08/2020 12:41

To: Ajaefobi, Weluche <ajaefobw@lsbu.ac.uk>

London South Bank University

Dear Weluche

Application ID: ETH1920-0056

Project title: Doctoral Research Project

Lead researcher: Mrs Weluche Ajaefobi

Thank you for submitting your proposal for ethical review.

I am writing to inform you that your application has been approved.

Your project has received ethical approval from the date of this notification until 20th August 2024.

Yours

Yamuna Kaluarachchi

Ethics ETH1920-0056: Mrs Weluche Ajaefobi (Medium risk)

Appendix B Sample information sheet



EST 1892

Participant Information Sheet

Study Title: Improving the Attainment Gap of Black and Minority Ethnic Students in the Built Environment Courses in UK Higher Education

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and if you would like more information on any aspect, do not hesitate to contact the researcher. You are free to discuss the study with others. Take time to decide whether or not you wish to take part. Thank you.

The purpose of the study

The purpose of this study is to explore and identify the possible factors responsible for the difference between the number of Black and Minority Ethnic students in the Built Environment courses that obtain a good degree – a First-class Honours or Upper Second-class Honours (2:1) and white students who achieve the same. The study should no longer than 10 minutes to complete.

The study is part of a doctoral research programme in the School of the Built Environment at the London South Bank University.

Why you have been invited to participate?

You have been invited to take part in this study as a sample of undergraduates studying a Built Environment course in a UK Higher Education institution. Students in selected UK universities have been invited to be involved. The overall number of people anticipated to participate in this study is 500 people.

The voluntary nature of participation

Please rest assured that your involvement in this study is voluntary. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time up till June 2021 without giving a reason. As a student, choosing to either take part or not take part in the study will have no impact on your marks, assessment or future studies.

If you decide to withdraw, please email the researcher providing your unique ID to ensure that your responses are removed. Your withdrawal will be acknowledged by email which will also confirm that you have been removed as a respondent in the study.

What will happen if you take part?

This is an electronic survey. The questionnaire includes questions about you, your course of study, your experiences at school, the BME attainment gap and what you think are their impact on academic attainment. It should take no longer than 15 minutes to complete.

You will be required to sign a consent form as confirmation of your voluntary participation.

Possible disadvantages/risks to participation

It is marginally possible that the sensitive nature of the research topic and questions might cause you some emotional discomfort if you have to talk about past experiences. You are free to refrain from answering any question likely to precipitate distress or discomfort. The researcher will in the de-brief provide contact details of relevant support agencies should you require it.

Possible benefits to participation

It is anticipated that this study will further our understanding of the BME attainment gap within the Built Environment and the interventions that could eliminate the gap especially as UK higher education cannot realize its full potentials without benefiting from the talents of the whole population and until people from all ethnic backgrounds equally benefit from the opportunities it affords.

Data collection and confidentiality

All the information collected about you and other participants will be kept strictly confidential (subject to legal limitations). Data generated by the study must be retained in accordance with the University's Code of Practice. All data generated in the course of the research must be kept securely in paper or electronic form for a period of 5 years after the completion of a research project. The researcher will capture data that has identifier components removed. The questionnaires would be anonymous with a unique ID generated for each respondent and this will have no inference to the respondent's personal details. Participants in the interview and focus groups will be assigned pseudonyms in data analysis and no personal details will be recorded.

What will happen to the results of the research study on completion?

The results of the study will be used in the researcher's PhD thesis. On the completion of the PhD research programme and award of the degree, the thesis will be available on LSBU Open Research and the British Library EThOS.

Who is organising and funding the research?

The researcher is conducting the study as a funded PhD student of The School of the Built Environment and Architecture, London South Bank University.

Who has reviewed the study?

This study has been reviewed and approved by the School of the Built Environment and Architecture's Research Ethics Committee at London South Bank University.

Who to contact for further information

If you have any questions or would like further information about this study or its outcomes, please feel free to contact Weluche Ajaefobi or Prof Obas John Ebobon.

Their contact details are:

Weluche Ajaefobi
School of the Built Environment and
Architecture
London South Bank University
103 Borough Road
London
SE1 0AA

Prof Obas John Ebohon
School of the Built Environment and
Architecture
London South Bank University
103 Borough Road
London
SE1 0AA

If you have any concerns or complaints regarding this research study, please contact the Chairperson of the School of the Built Environment and Architecture's Research Ethics Committee: Yamuna.Kaluarachchi@lsbu.ac.uk.

If you are feeling distressed, please contact the Samaritans on 116 123 or through their website: www.samaritans.org.

Thank you for taking time to read this information sheet.

Appendix C Consent form for respondents



Research Project Consent Form

Full title of Project: Improving the Attainment Gap of Black and Minority Ethnic Students in the Built Environment Courses in UK Higher Education

Ethics approval registration Number: ETH1920-0056


Name: Weluche Ajaefobi

Researcher Position: PhD Researcher

Contact details of Researcher: ajaefobw@lsbu.ac.uk

Taking part (please tick the box that applies)	Yes	No
I confirm that I have read and understood the information sheet/project brief and/or the student has explained the above study. I have had the opportunity to ask questions.	<input type="checkbox"/>	<input type="checkbox"/>
I understand that my participation is voluntary and that I am free to withdraw at any time, without providing a reason.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to take part in the above study.	<input type="checkbox"/>	<input type="checkbox"/>

Use of my information (please tick the box that applies)	Yes	No
I understand that my data/words may be quoted in publications, reports, posters, web pages, and other research outputs.	<input type="checkbox"/>	<input type="checkbox"/>
I agree for the data I provide to be stored (after it has been anonymised) in a specialist data centre and I understand it may be used for future research.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to the interview/...being audio recorded.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to the interview/... being video recorded.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to the use of anonymised quotes in publications.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to assign the copyright I hold in any materials related to this project to Weluche Ajaefobi.	<input type="checkbox"/>	<input type="checkbox"/>

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Weluche Ajaefobi	Date	
_____		Signature

Project contact details for further information:

Project Supervisor/ Head of Division name: Prof Obas John Ebohon

Phone: +44(0)20 7815 7637

Email address: ebohono@lsbu.ac.uk

Appendix D Copy of the questionnaire for students

CLOSING THE AWARDED GAP IN THE BUILT ENVIRONMENT COURSES IN UK HIGHER EDUCATION

Purpose of the Study

The purpose of this study is to explore and identify the possible factors responsible for the difference between the number of Black and Minority Ethnic (BME) students in the Built Environment courses that obtain a good degree – a First-Class Honours or Upper Second-class Honours (2:1) and white students who achieve the same. This will help to develop initiatives likely to close the gap. **The survey is part of my PhD research and solely for a research purpose. All responses are strictly confidential and anonymous.** Filling out the questionnaire means you consent to participating in the study. The questionnaire would take no longer than 10 minutes to complete.

Your contribution would be highly appreciated. Please contact me should you require any further clarification or if you would like a copy of the research findings.

Weluche Ajaefobi
School of the Built Environment and Architecture
London South Bank University
103 Borough Road
London
SE1 0AA
Email: ajaefobw@lsbu.ac.uk

Section A: Personal information

1. What is your gender?

- Female
- Male
- Prefer not to say
- Other, please specify

2. How old are you?

- 18 – 25
- 26 – 30
- 31 – 35
- 36 and above

3. What is your ethnic group? Choose **one** option that best describes your ethnic group or background

a. White

- Welsh/English/Scottish/Northern Irish
- Irish
- Gypsy or Irish Traveller
- Any other White background, please describe

b. Asian (not British)

c. Asian British/Asian UK domiciled

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background, please describe

d. Black: African/Caribbean (not British)

e. Black British/Black UK domiciled

- African
- Caribbean
- Any other Black/African/Caribbean background, please describe.....

f. Mixed/Multiple ethnic groups (not British)

- g. British (or UK domiciled) Mixed/Multiple ethnic groups
 - White and Black African
 - White and Black Caribbean
 - White and Asian
 - Any other Mixed/Multiple ethnic background, please describe
- h. Other ethnic group (not British)
- i. British/UK domiciled Other ethnic group
 - Arab
 - Any other ethnic group, please describe

4. What is your course of study?

- Architecture
- Civil and Building Services Engineering
- Construction, Property and Surveying
- Other, please specify

5. What is your mode of study?

- Full time
- Part time

6. What is your year group?

- 2nd Year [1]
- 3rd Year [2]
- 4th Year+ [3]

7. Is your university in London?

.....

8. What factors influenced your choice of course? Please rate the following factors on a scale of 1 - 5 (1 = very uninformative; 2 = uninformative; 3 = undecided; 4 = informative; 5 = highly informative).

	1	2	3	4	5
Family advice					

Potential for success					
Peers					
Employment prospects					
Interest in the subject					
Social mobility					
Course reputation					
Current employment					

9. Please indicate your entry qualification.

- A level
- BTECs
- NVQS
- International Baccalaureate
- Other (please specify)

10. What class of degree are you expecting and why?

.....

.....

.....

Section B: Awarding gap

The degree awarding gap for the Built Environment courses refers to the difference between the number of Black Asian and Minority Ethnic (BAME) students in these courses that obtain a good degree – a first-class honours or upper second-class honours (2:1) and white students who achieve the same.

1. Are you aware of the degree awarding gap?

- Yes
- No

2. If you answered yes above how much would you say that you know about the awarding gap?

- A little [1]
- Quite a lot [2]

3. What do you think may explain the awarding gap? Please indicate on a scale of 1 - 5 (1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; 5 = strongly disagree) the degree to which you agree that the following factors play a part. Tick only one answer for each row.

	Strongly disagree [1]	Disagree [2]	Undecided [3]	Agree [4]	Strongly agree [5]
Entry qualification					
Sense of belonging					
Curriculum content and design					
Teaching, learning and assessment					
Conscious or unconscious bias/racism					
Institutional culture					
Role models and mentoring					
Relationships with teachers and peers					
Student support services					
Internship placement					

4. Are you aware of any interventions by your university to reduce the awarding gap?

- Yes (please specify)
-
-
-
-
-

No

5. If you answered yes in the question above, how satisfied are you with your university's actions to reduce the awarding gap?

- Very satisfied [5]
- Somewhat satisfied [4]
- Neither satisfied nor dissatisfied [3]
- Somewhat dissatisfied [2]
- Very dissatisfied [1]

6. The following are some of the major interventions applied by universities to reduce the attainment gap. Rearrange the interventions using ranks between 1 - 5 giving 1 to the least effective and 5 given to the most effective in your opinion.

Intervention	[1]	[2]	[3]	[4]	[5]
Mentoring					
Inclusive curriculum					
Value added score					
Diverse workforce					
Inclusion of student voice					

Section C: Your Experience

1. How well do you agree that your identity is reflected in the following groups at your university?

	Strongly disagree [1]	Disagree [2]	Undecided [3]	Agree [4]	Strongly agree [5]
Non-academic staff					
Academic staff					
Course representatives					
Students' Union Officials					
Students					

2. From your experience to what degree do you agree that each of the following has impacted on your study?

	Strongly disagree [1]	Disagree [2]	Undecided [3]	Agree [4]	Strongly agree [5]
Sense of belonging/integration					
My contributions in class are valued					
Assessment methods are fair					
Sufficient academic support					
Negative expectation from staff and peers					
Inclusive learning and teaching					
Decolonisation of curriculum/inclusive curriculum					
Microaggressions					
Role models/mentors					
Contact with tutors					
Racism/unconscious bias					
Good student support services					
Placement opportunities					

3. How would you describe the learning environment at your university? Please tick all that apply.

- Welcoming [9]
- Supportive [8]
- Friendly [7]
- Inclusive [6]
- Challenging (positively) [5]
- Daunting [4]
- Racist [3]
- Hostile [2]
- Cliques [1]

4. Noting your response to question 3 above, is your learning environment positive or negative?

- Positive
- Negative
- Not sure

5. If negative, have you reported this to the university authority?

- No
- Yes

6. If not, why?

.....

.....

7. If yes, what action if any was taken?

.....

.....

.....

8. Were you satisfied with the action taken or did you feel more could have been done?

.....

.....

9. What more could have been done in your opinion?

.....

.....

.....

10. Have you ever been racially discriminated against?

Yes (please specify how).....

.....

.....

.....

No

a. If yes, was the incident(s) well resolved?

Yes, please say how

.....
.....
 No, please say why
.....
.....

11. Would you be interested in participating in a focus group interview? If yes, please give your name and email address.

.....

Thank you so much for participating in this study on closing the degree awarding gap of Black Asian and Minority Ethnic students in the Built Environment courses in UK higher education.

If you have any questions about this study, please feel free to contact the researcher Weluche Ajaefobi: ajaefobw@lsbu.ac.uk.

If you are feeling distressed as a result of your participation in this study, please contact the Samaritans on 116 123 or through their website: www.samaritans.org.
Once again, thank you for participating.

Appendix E Copy of the questionnaire for academics

CLOSING THE DEGREE AWARDING GAP IN THE BUILT ENVIRONMENT COURSES IN UK HIGHER EDUCATION

Purpose of the Study

The purpose of this study is to explore and identify the possible factors responsible for the difference between the number of Black Asian and Minority Ethnic (BAME) students in the Built Environment courses that obtain a good degree – a First-Class Honours or Upper Second-class Honours (2:1) and white students who achieve the same. This will help to develop initiatives likely to close the gap. **The survey is part of my PhD research and solely for a research purpose. All responses are strictly confidential and anonymous.** Filling out the questionnaire means you consent to participating in the study. The questionnaire would take no longer than 10 minutes to complete.

Your contribution would be highly appreciated. Please contact me should you require any further clarification or if you would like a copy of the research findings.

Weluche Ajaefobi
School of the Built Environment and Architecture
London South Bank University
103 Borough Road
London
SE1 0AA
Email: ajaefobw@lsbu.ac.uk

Section A: Personal information

1. What is your gender?

- Female
- Male
- Prefer not to say
- Other, please specify

2. What is your ethnic group? Choose **one** option that best describes your ethnic group or background

a. White

- Welsh/English/Scottish/Northern Irish
- Irish
- Gypsy or Irish Traveller
- Any other White background, please describe

b. Asian (not British)

c. Asian British/Asian UK domiciled

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background, please describe

d. Black: African/Caribbean (not British)

e. Black British/Black UK domiciled

- African
- Caribbean
- Any other Black/African/Caribbean background, please describe.....

f. Mixed/Multiple ethnic groups (not British)

g. British (or UK domiciled) Mixed/Multiple ethnic groups

- White and Black African
- White and Black Caribbean
- White and Asian
- Any other Mixed/Multiple ethnic background, please describe

h. Other ethnic group (not British)

- i. British/UK domiciled Other ethnic group
 - Arab
 - Any other ethnic group, please describe

3. What university department are you in?
- Architecture
 - Civil and Building Services Engineering
 - Construction, Property and Surveying
 - Other (please specify)

4. What is your current role at the university?
- Lecturer
 - Senior lecturer
 - Associate Professor
 - Professor
 - Head of Department
 - Other (please specify)

5. Is your university based in London?
.....

Section B: The awarding Gap

The degree awarding gap for the Built Environment courses refers to the difference between the number of Black Asian and Minority Ethnic (BAME) students in these courses that obtain a good degree (a first class or a 2:1) and the white students who achieve the same. White students are more likely than BAME students to obtain a first class or a 2:1 according to research.

1. Are you aware of the awarding gap?
- Yes
 - No
2. If yes, how much would you say that you know about the BME attainment gap?
- A little [1]

Quite a lot [2]

3. What do you think may explain the awarding gap? Please indicate the degree to which you agree that the following factors play a part and tick only one answer for each row.

	Strongly disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly agree [5]
Entry qualification					
Sense of belonging/integration					
Curriculum content and design					
Teaching, learning and assessment					
Retention and progression rates					
Inflated grades					
Institutional racism/unconscious bias					
Institutional culture and self-delusion					
Lack of role models and mentoring					
Blame game					
Student support services					
Placements opportunities					

4. The following are some of the major interventions applied by universities to reduce the awarding gap. Rearrange the interventions using ranks between 1 - 5 giving 1 to the least effective and 5 given to the most effective in your opinion.

Intervention	[1]	[2]	[3]	[4]	[5]
Mentoring					
Inclusive curriculum					
Value added score					
Diverse workforce					
Inclusion of student voice					

5. Are you aware of any interventions by your university to reduce the awarding gap?

Yes (please specify)

.....

.....

.....

.....

.....

No

6. How satisfied are you with your university's actions to close the awarding gap?

- Very satisfied [5]
- Somewhat satisfied [4]
- Neither satisfied nor dissatisfied [3]
- Somewhat dissatisfied [2]
- Very dissatisfied [1]

7. Looking forward, how important do you think the following are in the quest to close the awarding gap?

	Very unimportant [1]	Unimportant [2]	Undecided [3]	Important [4]	Very important [5]
Institutional leadership owning and leading the change					
Listening to BAME students					
Provision of safe spaces					
Cultural and social interactions					
Collaborative learning					
Decolonisation of the curricula and promotion of diversity in the classroom					
Educating about racism and acting					

against all forms of racism					
Individual institutional response - not one size fits all					
Making Black student attainment gap a KPI					
Anonymous marking					
Boosting work placements opportunities for BAMEs					
Increasing the number of BAME academics					

8. What is one thing you think Higher Education Institutions should be doing to progress better in closing the awarding gap?

.....

.....

.....

9. What action(s) have you taken personally to address the issue of the awarding gap in your course(s)?

.....

.....

.....

.....

Section C: Your Experience

1. How well do you agree that your identity is reflected in the following groups at your university?

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
--	-------------------	----------	-----------	-------	----------------

	[1]	[2]	[3]	[4]	[5]
Non-academic staff					
Academic staff					
Students					

2. From your experience to what degree do you agree with the following statements in relation to your institution?

	Strongly disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly agree [5]
There is enough information about the gap					
Staff have a good understanding of the awarding gap					
Staff are committed to improving learning and closing the awarding gap					
Closing the gap should be a top priority					
Assessment methods are fair					
Learning and teaching are inclusive					
There is sufficient academic support for students					
Senior management is strongly committed to closing the awarding gap					
Bias/institutional racism starts early					
Microaggressions are overlooked					
Effective unconscious bias training is in place					
Incidents of racism are adequately handled					
BMEs value role models/mentors more than other ethnic groups					
BMEs are involved in decision-making processes for institutional and sector-wide issues					
BAMEs in academia find it very difficult to progress in their career as a result of systemic barriers					

Number of BAME staff reflects the proportion of BAME students					
There is credible ethnic diversity at the senior positions					
Policies on diversity and equality are well implemented					
Positive action would be effective in addressing inequalities					
The awarding gap has social justice implications for the Built Environment and HE					

3. How would you describe the learning environment at your university? Please tick all that apply.

- Welcoming [9]
- Supportive [8]
- Friendly [7]
- Inclusive [6]
- Challenging (positively) [5]
- Daunting [4]
- Racist [3]
- Hostile [2]
- Cliques [1]

4. Noting your response to question 3 above, is your learning environment positive or negative?

- Positive
- Negative
- Not sure

5. If negative, have you reported this to the university authority, and what action if any was taken?

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6. Were you satisfied with the action taken or did you feel more could have been done?

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7. What more could have been done in your opinion?

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.....

8. Have you ever been racially discriminated against at your current place of work?

Yes (please specify).....
.....
.....
.....

No

9. If yes, was the incident(s) well resolved?

Yes, please say how
.....
.....

No, please say why
.....
.....

SECTION D: BAMEs in the Construction Industry

1. To what extent do you agree with the following statements? Please choose one answer for each row.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
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	[1]	[2]	[3]	[4]	[5]
BAMEs face barriers to employment in the built environment industry					
BAMEs are grossly underrepresented in built environment industry					
BAME progression in the built environment is very slow					
BAMEs lack skills and qualifications necessary to work in the built environment					
Retention of BAMEs in the built environment is improving					
Many BAMEs can be found at senior management levels					
A 'good' degree is essential to work at senior management levels					
Informal associations aid progression in the industry					
Racism/unconscious bias is properly addressed in the industry					
Information dissemination in the built environment is just and fair					
BAMEs have good training opportunities					

2. What qualities do you think that BMEs bring to the Construction industry?

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Thank you so much for participating in this study on closing the degree awarding gap in the Built Environment courses in UK Higher Education.

If you have any questions about this study, please feel free to contact the researcher Weluche Ajaefobi: ajaefobw@lsbu.ac.uk.

If you are feeling distressed as a result of your participation in this study, please contact the Samaritans on 116 123 or through their website: www.samaritans.org.

Once again, thank you for participating.

Appendix F Copy of the questionnaire for built environment professional bodies

CLOSING THE DEGREE AWARDING GAP IN THE BUILT ENVIRONMENT COURSES IN UK HIGHER EDUCATION

Purpose of this Study

The purpose of this study is to explore and identify the possible factors responsible for the difference between the number of Black Asian and Minority Ethnic (BAME) students in the Built Environment courses that obtain a good degree – a first-class honours or upper second-class honours (2:1) and white students who achieve the same. . This will help to develop initiatives likely to close the gap. **The survey is part of my PhD research and solely for a research purpose. All responses are strictly confidential and anonymous.** Filling out the questionnaire means you consent to participating in the study. The questionnaire would take no longer than 10 minutes to complete.

Your contribution would be highly appreciated. Please contact me should you require any further clarification or if you would like a copy of the research findings.

Weluche Ajaefobi
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Section A: Background information

1. What is your role in your organisation?

2. What sector of the construction industry does your organisation represent?
 - Architecture (RIBA)
 - Building Services Engineering (CIBSE)
 - Construction Management, Property and Surveying (CIOB)
 - Architectural Technology (CIAT)
 - Project Management Association (APM)
 - Other (please specify)

3. How much is degree classification a factor in the admission of members into your professional body?
 - Very important [5]
 - Important [4]
 - Neither important nor unimportant [3]
 - Unimportant [2]
 - Very unimportant [1]

4. What estimated percentage of your organisation is BAME?
 - 0 -10%
 - 10 – 20%
 - 20 – 30%
 - 30 – 40%
 - Above 40%
 - Not sure

Section B: The awarding gap

The degree awarding gap for the Built Environment courses refers to the difference between the number of Black Asian and Minority Ethnic (BAME) students in these

courses that obtain a good degree (a first class or a 2:1) and the white students who achieve the same. White students are more likely than BAME students to obtain a first class or a 2:1 according to research.

1. Are you aware of the awarding gap?

Yes

No

2. How much would you say that you know about the awarding gap?

A little

Quite a lot

3. What do you think may explain the awarding gap? Please indicate to what degree you agree that the following factors play a part and tick only one answer for each row.

	Strongly disagree [1]	Disagree [2]	Undecided [3]	Agree [4]	Strongly agree [5]
Entry qualification					
Course of study					
Mode of study					
Socio-economic factors					
Age					
Sense of belonging					
Curriculum content and design					
Teaching, learning and assessment					
Conscious or unconscious bias/racism					
Institutional culture					
Role models and mentoring					
Relationships with teachers and peers					
Student support services					
Work placement opportunities					

4. What do you think could be done by higher education institutions (HEIs) to progress better in closing the awarding gap?

.....

5. What role do you think a professional body like yours can play in assisting HEIs to address the gap?

.....

6. Does your professional body have a criterion to evaluate the accreditation of courses every five years in HEIs?

- Yes
- No

7. Are any of these criteria related to awarding gap figures?

- Yes
- No

8. What measure(s) do you have in place to hold HEIs accountable for bridging the awarding gap?

.....

Section C: BAMEs and the Professional Bodies

1. To what extent do you agree with the following statements? Please choose one answer for each row.

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

BAMEs face barriers to full chartered membership in your professional body					
BAMEs are grossly underrepresented in your organisation					
BAME progression rate from membership to fellowship is very low					
BAMEs are less likely to become members of professional bodies					
There is a lack of BAME representation in the organisational structure of your organisation					
Racism and unconscious bias are taken seriously by your organisation					
Mentorship and information for becoming members of your organisation are widely available to BAMEs					
BAMEs are able to access Continuing Professional Development (CPDs)					
Membership fees discourage BAMEs from membership					

2. From your experience to what extent do you agree that the following barriers may account for the underrepresentation of BAMEs in the built environment industry?

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
Necessary qualifications					
Relevant experience					
Image of the industry					
Non-implementation of equality and diversity policies					
Racial discrimination					
Restricted opportunities for BMEs					
Perceived hostile environment					
Recruitment procedures e.g. the use of word-of-mouth					

Training and development opportunities					
BMEs having to work harder than their White counterparts to be recognised					
Lack of work experience placements at school					
Limited knowledge among BAME communities of opportunities in the industry					
Systemic barriers to BAME progression					
Unconscious/implicit bias					
Senior management					

3. What interventions (if any) has your professional body put in place to attract BAMEs into your organisation?

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.....

4. With reference to question 4, how satisfied are you with your organisation's actions?

- Very satisfied [5]
- Somewhat satisfied [4]
- Neither satisfied nor dissatisfied [3]
- Somewhat dissatisfied [2]
- Very dissatisfied [1]

5. What do think may explain why BAME graduates in built environment courses do not end up in the industry?.....

.....

.....

6. Of what good is a wider participation from BAMEs to professional bodies?

.....

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Thank you so much for participating in this study on closing the degree awarding gap in the Built Environment Courses in UK Higher Education.

If you have any questions about this study, please feel free to contact the researcher Weluche Ajaefobi: ajaefobw@lsbu.ac.uk,

If you are feeling distressed as a result of your participation in this study, please contact the Samaritans on 116 123 or through their website: www.samaritans.org.

Once again, thank you for participating.

Appendix G Semi-structured interview questions for leaders in the BE sector

1. What is your understanding of the degree awarding gap and its causes?
2. How well do the built environment (BE) staff understand the awarding gap?
3. What is your view on eliminating the awarding gap?
4. What is the current percentage point of the awarding gap in your BE school?
5. How proportionate is the number of BAME staff to the number of BAME students at the university and in the BE sector?
6. What do you think about grade inflation and how it might impact on the awarding gap?
7. Are there any differences between BAME and white students in access, student success, and progression within your school?
8. What is the impact of teaching methods, curriculum and organisational culture on BAME student retention, progression and attainment?
9. To what extent do placements affect the degree outcome of students in the BE?
10. How well do staff understand conscious and unconscious bias and how they can affect academic attainment?
11. What interventions/actions (if any) are in place to enhance equality of opportunity and outcomes and so eliminate the gap?
12. Do you have any system(s) of disaggregating BAME students to ensure that these interventions are effectively targeted?
13. How do you evaluate the impact of the interventions, and have they had any effect on differential outcomes?
14. What challenges/barriers have you had in implementing these interventions?

Appendix H Semi-structured interview questions for experts in the DAG discourse

1. What is your understanding of the degree awarding gap and its causes?
2. How well does the built environment (BE) sector/staff understand the awarding gap?
3. What is your view on eliminating the awarding gap?
4. What do you think of grade inflation and how it might impact the awarding gap?
5. What interventions in your opinion can enhance equality of opportunity and outcomes and so eliminate the awarding gap?
6. What is the impact of teaching methods, curriculum, and organisational culture on BAME student retention, progression and attainment?
7. How can the BE curricular be decolonised?
8. To what extent do placements affect the degree outcome of students in the BE?
9. 'Is uni racist'?
10. How do biases and structural racism impact on BAME students' engagement, progression and attainment?
11. What is the role of leadership in breaking down barriers that exist in higher education institutions and creating diverse and inclusive organisations?
12. What barriers account for the underrepresentation of BAMEs in the built environment industry?
13. What qualities can BAMEs bring to the built environment industry?

Appendix I Focus group discussion questions

1. Research has shown that there is a continuing gap between the number of UK domiciled Black Asian and Minority Ethnic (BAME) students and their white peers in UK higher education that graduate with a first-class or 2.1. This gap is known as the degree awarding/attainment gap. What is your understanding of the gap and its causes?
2. What has your experience as a BAME student been at your university?
3. To what extent do you think that student experiences and a sense of belonging impact on student retention, progression and degree outcome?
4. What support have you found beneficial?
5. What challenges/barriers have you encountered in your academic pursuit?
6. Are there measures put in place by the school to listen to you and engage with you so that they can support you better?
7. Would having more BAME academics teach you enhance your academic attainment? If so, why?
8. How do the university curricula, teaching and assessment methods affect the awarding gap in your opinion?
9. What do you think of mentoring?
10. Have you had any experience of racism? If yes, was it properly dealt with?
11. Are you confident enough to report any case of racism?
12. What is your perspective on the effect of racism, conscious/unconscious bias on academic attainment?
13. What recommendations/suggestions would you like to make?

