

**FACTORS INFLUENCING ACADEMIC AND EMPLOYMENT
OUTCOMES: A MULTIPHASE Q-METHODOLOGY STUDY**

by

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Abstract

This thesis investigates the perceptions of barriers and enablers impacting academic and employment outcomes of students of Generation Z. It is a topic of multi-disciplinary importance spanning the fields of education, business and management, psychology and sociology. It is framed within a changing UK Higher Education landscape including increased internationalisation. This study adopts Q-methodology, a mixed-methods study that quantitatively evaluates qualitative viewpoints. Q-methodology is extended by performing additional analyses at the intersection of gender, ethnicity, and nationality. A total of 304 students, 44 non-higher-education employees and 8 faculty members, voiced their opinions to explain gaps in student attainment. Moreover, degree results from 2,024 students who graduated between July 2016 and July 2019 from one single UK business school, were evaluated. Findings of a self-reported lack of confidence of female students, linked partly to a perceived lack of verbal communication skills, suggest that one of the consequences of a lack of confidence might be that female students work harder than their male counterparts to compensate, resulting in a higher mean average grade. By doing so, they tend not to take advantage of more long-term networking and career opportunities, and also feel more stressed, which, in turn, further diminishes self-confidence. Tackling the confidence and verbal communication gap is currently deprioritised by faculty, who focus on knowledge transmission as part of their teaching. Suggestions are made that aim to raise awareness of more informed and nuanced teaching practices that embed verbal communication skills, to develop student agency independent of gender. By keeping the first part of each research phase in line with traditional Q-methodology, and by then adding accessible R-type analyses, it was possible to reveal results that aim to raise awareness for more audience-centric teaching and research practices across Q and non-Q communities.

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Declaration

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic awards.

A separate sheet advising of funding of this degree will be submitted at the viva.

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Abbreviations and Definitions

Abbreviations / acronyms

AACSB = Association to Advance Collegiate Schools of Business

AI = Artificial Intelligence

ANOVA = Analysis of variance

BME = Black and minority ethnic

BS = The business school where most of the research has been conducted

CCCU = Canterbury Christ Church University

CMBE = Certified Management and Business Educator

CPD = Continuous Professional Development

HE = Higher Education

HEA = Higher Education Academy

IAT = Implicit Association Test

IT = Information Technology

GenZ = Students of Generation Z, born from 1995 to 2012, also known as iGen

MBA = Master of Business Administration

NMMLG = National Mixed Methodology Learning Gain

NSS = National Student Survey (in the UK)

OECD = Organisation for Economic Co-operation and Development

OfS = Office for Students

PGCert = Postgraduate Certificate

PCA = Principal Component Analysis

PISA = Programme for International Student Assessment

PRME = Principles for Responsible Management Education, a worldwide network that is part of the UN Global Compact, a UN (United Nations) initiative

Qual = Qualitative research

Quant = Quantitative research

REF = Research Excellence Framework

SOLO = Structure of Observed Learning Outcomes

TEF = Teaching Excellence and Student Outcomes Framework

TEL = Technology Enhanced Learning

UK HE = Higher Education in the UK

Key definitions

Agency: The ability to act independently.

Concourse: All statements mentioned in the initial data gathering phase by participating students or came from the literature. Most relevant statements were taken forward into the Q-set (the statements that participants have to sort).

Confidence: The terms confidence and self-confidence are both used in this thesis. Self-confidence is more commonly used in academic literature. Confidence, rather than self-confidence, was the term chosen by the majority of students during the development of the concourse at the start of the primary research. Examples of students' descriptions of the term are provided in this thesis, which link to students describing confidence as being confident in their own actions and at ease in different environments.

Effect sizes: A quantitative measurement that deducts the mean average of one group from another group, divided by the standard deviation to explain the magnitude of the difference independent of sample sizes.

Eigenvalue: The eigenvalue (EV) expresses the variance of data and is the number that the length of the eigenvector gets multiplied by. In Principal Component Analysis (PCA), the largest eigenvalues correspond to the components that are associated with the highest co-variability among the observed data.

Employment: Although employment and career outcome, progression, and success are all slightly different, in this thesis they are used to a certain degree interchangeably and include self-employment. The use of the terminology for the title of this thesis 'employment outcomes' was based on Office for Students (OfS) terminology (OfS, n.d.(a)).

Ethnicity: Groups with a common heritage. For this research, main ethnicities were ‘White’, ‘BME’ (Black and minority ethnic) or ‘Han Chinese’.

Factor: An item, characteristic, or component that influences, or has the potential to influence, academic and employment outcomes, either directly or in combination with other items, characteristics, or components as a moderating factor. In addition, Q-methodology uses factors to combine participants who share viewpoints. These shared viewpoints also influence, or have the potential to influence, academic and employment outcomes.

Faculty: Staff employed with teaching and/or research contracts, in HE generally and also at BS.

Nationality: The status of belonging to a particular nation.

Principal Component Analysis (PCA): A dimension-reduction tool that converts a set of variables into linearly uncorrelated variables called principal components, which can be visualised as the line between two axes. PCA calculates mathematically the optimal number and the weights of components that summarise the data, expressed as factors in the software package used for this research project.

P-set: The sample of participants.

Q-set: The statements that participants must sort.

Q-sort: The subjective rankings completed by each participant.

Public Speaking: As part of this research project, public speaking includes all-class speaking in lecturers, workshops or seminars.

Q-methodology: A research method that studies subjectivity. Most Q-methodology concepts are detailed, and their relevance explained, in *Chapter 2 – Methodology and Methods*.

Workers: Self-employed or employed outside HE, members of the workforce.

Z-scores (in Q-methodology): ‘The distance between a particular absolute score and the mean average score of the measured sample... expressed in terms of standard deviations’ (Watts and Stenner, 2012, p.9).

Word choices specific to this project

As part of this thesis, there are five chapters with sub-chapters. Each sub-chapter is called a section. Student segments are sub-groups of students at the intersection of gender, ethnicity, and nationality. As part of this research project, there are three research phases. Within each research phase there are several distinct research steps with a separate Q-methodology study for each of the three research phases.

Chapter 1. Introduction to the Project and Related Literature

1.1. Introduction and chapter outline

This research aims to contribute to informed decision-making on teaching and learning in Higher Education (HE) and to make a positive difference to students' careers and lives after they graduate. As part of this research project, I investigate the perceptions of undergraduate students of Generation Z (GenZ) of factors that influence academic and employment success. The research is based on three participant-driven consecutive Q-methodology studies. Each study first focuses on the participants' viewpoints using traditional Q-methodology tools and concepts. For increased robustness, and to illustrate points for non-Q-methodologists, R-type analytical tools are also used, such as statistical significance and effect sizes linked to certain statements combined with demographic attributes and their intersections.

The primary research was split into three phases. In the first phase, students' viewpoints on enablers and barriers to academic and career success were compared with those of non-HE workers. In the second phase, students' viewpoints on barriers were contrasted at the intersections of gender, ethnicity, and nationality. In the third phase, next steps and recommendations were researched by eliciting students' and non-HE workers' views, and those of faculty at BS, a business school in South East England.

This thesis comprises five chapters. The first chapter provides background on the research. The second chapter explains the methodology and methods used for the research. The third chapter sets out the findings, which are then discussed in the fourth chapter, before the final (fifth) chapter provides further thoughts and recommendations. Each chapter has a short introduction and summary.

The remainder of this introductory chapter is split into three sections. The next section provides an overview of the context, the researcher, and the research questions. This is followed by a review of the literature around two areas: barriers and enablers to academic and employment outcomes, and

traditional and adapted application of the Q-methodology. The last section of this chapter outlines delimitations. The purpose of listing delimitations in this introductory chapter rather than in the final chapter, is to define and delimit the project up front, including strengths and known weaknesses.

1.2. The context

In this section, I first explain the relevance of this research within HE, before using an autobiographical lens to explain the background to this research project.

1.2.1. Positioning the research within the external context

The research is positioned within an evolving global HE landscape which has changed from an essentially elite higher education system to a mass higher education system (Santos and Horta, 2018). Increased domestic and international access to HE has resulted in growing academic interest in all aspects of teaching and learning (Longden, 2010). This research touches on three key areas: employability, outcome disparities among student segments, and Q-methodology.

First, this thesis contributes to the employability agenda. I compare students' and workers' perceptions of factors contributing to academic and career success, to understand if students' education can be seen as an effective preparation for the workplace. The employability agenda is one of the priorities of the Office for Students (OfS), the new UK HE regulator which was established in 2018 (OfS, 2018). The OfS measures the value for money of students' education in different ways; including by how graduates are meeting the knowledge and skill requirements of employers (OfS, 2019a, Key Performance Measure 16). The discussion of skills and career competencies is also topical across other countries, e.g. in Canada, as part of performance-based funding in HE (Usher, 2019), and in Australia, as per recent publications (e.g. Clarke, 2018; Moore and Morton, 2017; Williams, 2019a).

The vocation of HE, to educate by providing an appropriate and transferable skillset and to listen to the student voice, is also reflected through the introduction, in 2017, of the Teaching Excellence and Student Outcomes Framework (TEF) (GOV, 2017) with an increased focus on the National Student Survey (NSS) as an integral part of the TEF (THE, 2019a).

Independent of external regulatory pressures, this research aims to develop among lecturers an intrinsic post-course consciousness, where lecturers consider it their professional responsibility to consider their students' future employment and to ensure that they teach, and that the students understand, the value of the transferable skills that are being taught (Martini, 2019).

The second contemporary area that this research contributes to, is cognisance of issues around academic achievement and career outcome disparities among student segments at the intersection of gender, ethnicity, and nationality. I try to understand patterns and trends at an undergraduate level which might influence students' career prospects. In particular, I investigate why female students outperform male students academically and then, five years after graduating, female graduates in the UK face a gender pay gap, which has increased from 12% in 2014/15 to 15% in 2016/17 (Department for Education, 2019, p.2).

Internationalisation of HE has led to compositional changes of the student body (MAC, 2018). English-speaking countries especially have seen an increase in international students (Tan, 2012), with the US and the UK having the two largest intakes of international students, representing over one-third of international students worldwide (UUK, 2017). Students from China exceed any other non-UK nationality (UKCISA, 2019). The share of international students for business-related subjects is higher than for other subjects, with 2.5 times the number of international students studying business-related degrees than the next subject area (UUK, 2017). At the focal business school (BS) nearly half of the undergraduate students come from China or Hong Kong.

By reviewing students' input by nationality, I hope to provide insights into the large degree outcome disparity of home and international students (see Appendix A for BS), and educational approaches that are appreciated by students from China in particular.

The third area of interest of this thesis is the use of Q-methodology. By applying, reviewing and disseminating findings of this adapted Q-methodology, I aim for it to be perceived as a more accessible method for researchers and trainee researchers. I also add to the highly polarised discussion in the Q-community about whether research using Q-methodology should follow exactly the methodology outlined by Stephenson in 1935 (e.g. Brown, Danielson and van Exel, 2015; Watts and Stenner, 2012) or whether a purposeful adaptation of Q-methodology, such as the one I have devised, can elicit additional results and seem more robust in the eyes of the non-Q research community.

1.2.2. Autobiographical lens: from inception to ethics approval

As an educator, I strive to support students to reach their full potential by being both a lecturer and a researcher. I am aware that my dual role as an insider (lecturer in HE) and outsider (researcher of participants' viewpoints), risks unclear power relations and researcher vulnerability (Raheim et al., 2016). This section outlines the inception of this research project by using an autobiographical lens; one of the lenses recommended by Brookfield (1995, 1998 and 2017) for critically reflective teachers. Throughout the research, the autobiographical lens is used less frequently than the other lenses; however, by using it at the start, I hope that the reader will better understand the context, the duality of my role, and how I tried to mitigate my potential researcher bias.

As I wanted my doctoral studies to be a time of learning about both quantitative and qualitative research methods I knew early on in the taught-phase of my doctoral training that I was interested in using mixed-methods as the methodological approach.

My background enabled me to combine three groups: (1) students, i.e. the ‘brand new’ GenZ, (2) faculty, i.e. colleagues, and (3) workers, i.e. non-HE contacts. Relative to my colleagues in HE, I was uniquely placed in reaching out to members of the non-HE workforce: I started lecturing at BS in 2010 after working for over 20 years in technology and finance-related project management roles in the payment services industry, first for American Express and then for Visa. BS is in the South East of England, has a student body of approximately 4,500 students, and around 250 faculty members; it is among the top 60 business schools worldwide (THE, 2019b).

I decided to put students at the centre of my research as I wanted to use research-informed teaching to provide students with an education that will have a positive impact on their careers. I also felt that I did not know enough about the student body I work with, which is very diverse and international, with only a few students from Germany and France where my own full-time education took place. I therefore wanted to embrace the UK HE opportunity to work in a global environment with a multitude of nationalities, and, in particular, with students from China who (after UK students) represent the majority of the student body. Prior to starting this research project, I had already started to take evening classes in Mandarin, and throughout my research I regularly discussed findings and ideas with my Mandarin teacher.

At the time of writing this thesis, I convened and taught three modules that focused on standing up for beliefs around inequalities and inclusion: (1) Critical Perspectives, a final year undergraduate option; (2) Social Responsibility, Sustainability and Business Ethics, a final year undergraduate compulsory core module; and (3) Economic, Social, Political, and Cultural Environment, an MBA module. I had also co-founded the Equalities, Diversity and Inclusion working group of BS, and I initiated and led the business school’s UN initiative, Principles for Responsible Management Education (PRME).

As part of my involvement in the area of (in)equalities, I observed that at BS, in line with the sector average (Kolster and Kaiser, 2015), female students outperform male students across different nationalities and ethnicities (see Table 1 for undergraduate degree results and Appendix A for the gender difference at BS for the share of 1st and 2:1 degrees).

Table 1: Undergraduate mean average degree results.

UG Finalists		2019		2018		2017		2016	
Country	Gender	Mean	Count	Mean	Count	Mean	Count	Mean	Count
All	F	62	300	62	249	60	218	61	187
All	M	60	325	60	272	59	243	58	208
All	All	61	625	61	543	60	461	59	395
UK	F	68	86	67	77	66	63	67	37
UK	M	65	109	66	80	66	70	63	60
UK	All	66	195	67	157	66	133	64	97
EU	F	65	23	65	17	64	14	66	11
EU	M	62	16	61	14	62	11	64	6
EU	All	64	39	63	31	63	25	65	17
International	F	59	190	60	155	57	141	58	138
International	M	57	200	58	178	56	162	56	142
International	All	58	390	59	333	56	303	57	280
China	F	57	147	59	117	56	112	58	104
China	M	56	126	57	110	54	91	55	98
China	All	57	273	58	227	55	203	57	202

Source: BS transcripts of 2,024 students who graduated between July 2016 and July 2019.

Despite female students outperforming male students by mean average share of 1st and share of ‘good’ degrees, there is a reverse gender pay gap in most workplaces (GOV, n.d.). The gender pay gap is a consequence of various factors, including, for example, career choices (Wagner, 2015). Most of these factors are outside the scope of this research. Within the scope of this research is the question whether, during the students’ time at university, there might be any enablers that can be reinforced, or barriers that can be removed, to contribute towards closing the degree outcome and/or gender pay gaps in the future.

For my research, I wanted to select a method that allowed me to discover students’ viewpoints as ‘truthfully’ as possible. ‘Truth’ is defined for this research as ‘truth as consensus’, which is one of Bridges’ (1999) five theories of truth with this one being aligned to the relativist approach by Guba. Guba (1992) posits that truth is to find an ‘as near as possible’ consensus ‘given the

level of information and sophistication that we have... [T]he successor construction cannot be seen as more true than the one it replaces, but simply as more informed and sophisticated' (p.20). Consensus theory shares common ground with constructivist thinking underpinned in philosophical pragmatism (Bridges, 1999) which is one of the reasons why I chose to frame the research as critical constructivism. As I will outline in Chapter 2, this thesis considers the socially constructed perceptions which contribute to producing differences in academic and employment outcomes.

The prefix 'critical' partly reflects the use in this thesis of the Brookfieldian lenses, with Brookfield advocating critical theory for adult learning and teaching (Brookfield, 1995, 1998 and 2017). It also reflects the influence that Paulo Freire's 'Pedagogy of the Oppressed', written in 1968 (Freire, [1968] 2017), had on me as educator and doctoral student. There are many aspects of the 'Pedagogy of the Oppressed' that resonate with me. In Chapter 2 I explain some specific Freirean concepts and their relevance to this thesis. In Chapter 4 I link these concepts with student voices from Asia, expressed during a focus group discussion. Here I would want to mention that there are similar concepts to the 'banking' concept of education that I chose not to elaborate on as part of this thesis; e.g. Plutarch spoke 2,000 years earlier about the mind being like a fire to be kindled and not like a vessel to be filled, and Poincaré pointed out over 50 years earlier that a collection of facts is like a heap of stones rather than a house (see DiCarlo, 2009 for both examples).

Due to my IT and finance-related project management background, I was interested in finding a tool that combined calculations with recent technological progress. For example, I was interested in conducting surveys online and in using Python or 'R' for the analysis. Secondary desktop research led me to Q-methodology. Q-methodology is an integrated mixed-method that offers online surveys and analysis. Q-methodology claims that by carrying out quantitative calculations, it objectively measures qualitative subjectivity (Watts and Stenner, 2012).

The quantitative analysis side of Q-methodology allows for different mathematical formulae to be used. To mitigate my potential researcher bias, whenever Q-methodology allowed for choices of different formulae, I selected the ones I perceive as providing the more automated optimal mathematical solutions without judgment calls or interpretation, e.g. I used Principal Component Analysis (PCA) rather than Centroid Factor Analysis. By having quantitative and qualitative elements, Q-methodology provides a framework to investigate multiple constructed realities; the mathematical ones and the qualitative ones. Q-methodology thus offers the researcher the opportunity to stand back as far as possible, to determine as objectively as possible, students' subjectivity.

Before requesting ethics approval, I needed to develop the research questions. To do so, I adapted Brookfield's (1995, 1998 and 2017) four lenses: (1) the autobiographical reflective practice lens, (2) the students' lens, (3) the colleagues' lens, i.e. faculty in HE, and (4) the theoretical, philosophical, and research literature lens. For my research, I introduced one additional lens: (5) the non-HE workers' lens, as a proxy for the future employers and the future colleagues of the students. Ethical approval was sought for three of the lenses: students to be surveyed nationwide mainly using Q-methodology but also surveys and focus group discussions; non-HE workers/employers as a comparator to students, to be surveyed by using Q-methodology surveys and also follow-up questions; and colleagues (faculty of BS), to be interviewed in a focus group setting.

I received ethics approval from Canterbury Christ Church University (CCCU) on 2 June 2017, reference number: 16/Edu/CL126. Prior to receiving the ethics approval, I also received written approval from BS stating that I could conduct primary research and that the CCCU approval satisfied their ethics approval standards under reciprocity agreements.

1.3. Literature review

The aim of a literature review is to develop appropriate research questions and to ensure originality by identifying a research and knowledge gap. The literature review is centred around two areas: (1) perceived barriers and enablers to academic achievement and future career progression, and (2) the application of Q-methodology, ranging from the traditional use to views on an adapted methodology.

Sometimes, to demonstrate a connection with non-academia or to make this research more contemporary, I had to rely on non-peer-reviewed material. For example, Twenge is a researcher active in HE (e.g. Twenge, Carter and Campbell, 2017), and so is Chamorro-Premuzic (e.g. Akhtar et al., 2018). However, their recent relevant articles for this research are non-peer-reviewed.

1.3.1. Factors influencing academic achievement and career progression

Throughout the literature review, I position achievement and success in neoliberal terms by talking about high grades, rather than considering happiness and wellbeing (Tomlinson and Kelly, 2013) or the ability to think more freely, be more creative, or deliberate better with others (Fleury and Garrison, 2014).

Students' academic performance determinants and differences have been reviewed from various points of departure including social identity (e.g. Leman, 1999), socio-economic status (e.g. Strand, 2014), ethnicity (e.g. Richardson, 2008 and 2014; Woodfield, 2017), gender (e.g. Barrow, Reilly and Woodfield, 2009), or their intersection (Jones et al., 2017; Ma and Liu, 2017). In 2007/08, the Equality Challenge Unit (ECU, 2008) commissioned a UK-wide review of the impact of ethnicity and gender on attainment in HE, which explored the comprehension and perceptions of academics and students. The outcome suggested that there was no proof of causal factors that explain degree result differences by ethnicity or gender (ECU, 2008).

Further results also indicate that there are many aspects and different social contexts that shape degree outcomes (Leman, 1999).

The combination of factors in predicting degree outcomes is very complex due to substantial interactions between factors (Strand, 2014). Findings suggest that, overall, independent of complexities and interconnectivities, HE does not reduce but reproduce social inequality (Boliver, 2017; Smith, 2016). Similarly, Lips (2004) assessed students' perceptions of their current academic selves and of their possible future selves. Lips found that there was a larger gender gap between future selves and current selves for mathematics, science and business domains for university students than for high school students, with university students seeing their future pursuits in these domains as far less possible for themselves as did the high school students. The dividing thoughts of future selves between female and male students at the university level correlated with gender stereotypes.

This literature review is split into three parts: 'pre-university', 'at university' and 'post-university'; for each, there are the influences of 'nature' versus 'nurture'. There are three delimitations that are applicable to this section. First, throughout the review, I do not consider factors that affect admission to university but, instead, consider the academic success of students who have gained admission and are at university. Social characteristics, for example, have less influence on academic success than they have on overcoming barriers to admission (Smith, 2016). Similarly, when considering career success, I review factors that are already prevailing during university studies. Hence, I ignore elements such as family responsibilities, even though they are perceived as one of the main career inhibitors for women, especially when linked to a lack of sympathy by co-workers and superiors (Chinchilla et al., 2006).

Second, this review is based on literature which frequently has an 'Anglo-Western home student' perspective. Other perspectives, such as

understanding the academic performance of Asian students in the UK, seem to be covered less extensively in the Anglophone literature.

Third, differentiation between the three parts of this section is not always straightforward; some factors were in place prior to starting university and then developed further throughout the studies. Self-confidence, for example, will be included throughout the three sections of this literature review.

1.3.1.1. Pre-university factors

When considering background or '[b]irth characteristics... [where] variables include all of those characteristics respondents could be considered to have from birth, including: sex; ethnic group; parental occupational class and age' (Smith, 2016, p. 976) one of the key predictors of degree outcomes appears to be gender. Female students obtain higher proportions of good degree outcomes (Barrow, Reilly and Woodfield, 2009; ECU, 2008; Jones et al., 2017; Smith and White, 2015), despite both men and women stating that women face greater challenges during their studies and careers (Woodfield, 2019). Gender can also be considered as a moderator to affect other factors, and seems more significant than pre-entry qualifications, ethnicity, or socio-economic background (Barrow, Reilly and Woodfield, 2009). Socio-economic background seems to be the least important of the four (Smith and White, 2015). While economic status appears less important for academic achievement once students are at university (Smith, 2016), economic status does play a role; e.g. economically disadvantaged people frequently do not believe that intelligence can be developed which, in turn, negatively affects achievement (Claro, Paunesku and Dweck, 2016).

When drilling down into the moderating effect of gender, gender impacts differences of expectation, which are only influenced by gender and not by race (Wells et al., 2011). Furthermore, gender appears to influence the behavioural patterns, with female students being considered to work harder than male students which, in turn, is perceived to lead to expressions of higher levels of anxiety in women in relation to assessments (Woodfield, Earl-

Novell and Solomon, 2005). Moreover, gender affects attendance, study time, and motivation (Cotton et al., 2016). According to Cotton et al. (2016), lower attainment for male students is also explained by their engagement in less time-consuming surface-learning approaches and not being able to judge likely success effectively. However, there might be some degree of self-reporting bias, with male students reluctant to admit to working hard (Cotton et al., 2016). Also, female students are more likely to participate in research and provide comments about their academic work (Woodfield, Earl-Novell and Solomon, 2005).

Gender is also a central point of analysis for the Programme for International Student Assessment (PISA) studies. An OECD report (OECD, 2015, p.32) commented that, globally, 15-year-old female students:

... have less self-efficacy and [a] lower self-concept, [however] they tend to be highly motivated to do well in school and to believe that doing well at school is important. They also tend to fear negative evaluations by others more than boys do, and are eager to meet others' expectations for them. Given girls' keen desire to succeed in school and to please others, their fear of negative evaluations, and their lower self-confidence in mathematics and science, it is hardly surprising that high-achieving girls choke under (often self-imposed) pressure.

Some authors, e.g. Crawford and Wang (2014) and Iannelli and Huang (2014) claim that for the academic performance of Chinese students in the UK, the final degree mark appears to be neither influenced by gender nor by prior academic performance. Instead, academic performance may be linked to confidence in speaking English (Cotton et al., 2016) and to the different value that Chinese students and employers attribute to a good degree. For example, Iannelli and Huang (2014) state that for Chinese employers, the choice of university is more important than the degree grade result.

In summary, while gender seems to matter the most as a pre-university-determined predictor of degree outcomes, all factors are interconnected and

are multi-faceted. The following section deals with factors that might be influenceable while the students are enrolled at university.

1.3.1.2. Factors and behavioural patterns while students are at university

The previous section demonstrated that the factors predicting academic achievement and career success are complex and interrelated, with gender standing out as a key factor. In this section, the focus is on the factors that students encounter at university. This includes teaching and learning related factors, as well as psychological or behaviour patterns that students demonstrate while they are at university.

Planning and time management (Broadbent and Poon, 2015), as well as self-regulated learning, including meta-cognition, are perceived as important factors for success in HE (Broadbent and Poon, 2015) as well as in earlier schooling (Dent and Koenka, 2016). Sutherland et al. (2018) demonstrate that for ‘NSS Question 15, “the course is well organised and is running smoothly” ... registers as the strongest driver of satisfaction for BS students’ (p.637); they also note that this point is linked to the efforts of teaching staff rather than administrators. They suggest that, according to NSS data, students ‘value content, delivery, and organisation more highly than enthusiasm, albeit enthusiasm is still not unimportant’ (p.640). Sutherland et al. (2018) continue to explain that business students can be seen as more instrumental learners than non-business students. Business students seem to appreciate faculty members who can explain things well, more than non-business students, while ‘intellectual stimulation appears to be considerably less important’ (p.642).

A further factor influencing student satisfaction is the perception of fairness of assessments, rather than, for example, promptness and depth of feedback provided (Sutherland et al., 2018) or type of assessment (Hiles, 2016). Different types of assessments were also reviewed to consider whether they could explain gender or ethnicity differences in attainment. Richardson (2014) found that the difference between types of assessment is consistent

across gender and across students from different ethnic groups. Similarly, Woodfield, Earl-Novell and Solomon (2005) noted that female undergraduates outperform male undergraduates across all types of assessment. All students seem to perform better on coursework than on unseen exams, and all students who expressed a preference preferred coursework (Woodfield, Earl-Novell and Solomon, 2005). Crawford and Wang (2014) suggest that the content of assessments as well as the provision of specific learning approaches and curriculum designs determine academic achievement.

In line with the sector, students at BS who completed an additional placement year or study year outperformed their peers (see Crawford and Wang, 2014), and international students' degree outcomes are lower compared to those of home and EU students (see Cotton et al., 2016; Crawford and Wang, 2014). Within the group of international students, Chinese graduates consistently achieve lower grades across HE in the UK (Iannelli and Huang, 2014).

The lack of culturally sensitive pedagogical approaches is reported by Tan (2012) as a key factor for the lower academic performance by Chinese students. Culturally sensitive education should recognise the uniqueness of students (Giordano, 2012) and acknowledge that international students bring their own cultural values, and find adapting to a new culture difficult (Sun, 2012).

When reviewing behavioural patterns of students at university-level, it is necessary to distinguish between the students' own behaviour and that of their close peers. Several studies have found that students achieve better grades when surrounded by higher achieving peers (Berthelon et al., 2019; Golsteyn, Non and Zölitz, 2017) even without increasing study efforts (Golsteyn, Non and Zölitz, 2017). Moreover, the cohesion and breadth of students' networks also improve student outcomes (Berthelon et al., 2019). As for the students' own behaviour, findings show that class attendance has a positive role in academic achievement (e.g. Cohn and Johnson, 2006;

Cotton et al., 2016). A correlation can also be noted between interpersonal confidence and confidence in abilities (St Clair-Thompson et al., 2014). According to Stankov (2014), self-belief and confidence are the most important noncognitive influences on the application of learned knowledge and experience. Stankov, Morony and Lee (2013) suggest that confidence explains 46% of the total variance in achievement. In addition to the students' own confidence, the self-reported belief of teachers also influences the students' academic experience (Archambault, Janosz and Chouinard, 2012).

Extroverted students, independent of whether they are perceived as agreeable, seem more popular, which appears to improve their academic achievement (Thiele, Sauer and Kauffeld, 2018). Furthermore, the social embeddedness of extroverts at the start of university life influences their performance throughout their studies (Thiele, Sauer and Kauffeld, 2018). Interpersonal relationships are also important for the future workplace, where friendship between colleagues is linked to improved productivity (Dachner and Miguel, 2015). Additionally, an increase in confidence can be seen when thoughts are shared by others within the group (Petty, Briñol and Tormala, 2002) which is easier for extroverts than for introverts.

Sleep is also frequently discussed as an important factor in academic success. Twenge (2018) points out that excessive smartphone usage by GenZ disrupts sleep patterns which, according to Twenge, increases anxiety and depression. While good quality sleep seems to be associated with better academic performance (Lemma et al., 2014), research indicates that later wake-up times have the largest negative influence out of many variables: the later the students wake up, the lower the average grades (Barnes and Egget, 2000). Variables investigated include age, gender, exercise, nutrition, sleep habits, perceived stress, mood states, social support, time management, religious or spiritual habits, and hours worked per week. Out of all variables that were investigated, including gender, studying spiritually-oriented material and mental strength training had the highest positive effect (Barnes and Egget, 2000).

Generally, there seems to be a positive correlation between academic success and mental toughness, including control of life: students who feel that they are in control of their life achieve higher grades (St Clair-Thompson et al., 2014; Stock, Lynam and Cachia, 2018). Similarly, Gao (2013) linked taking control of the learning process to learners' agency.

There is a wealth of empirical research on the role of self-belief as a success factor in HE (Baumeister et al., 2003; Brau et al., 2017; Sitzmann et al., 2010). Self-belief has a positive influence on students' willingness to attempt and complete challenging tasks (Baumeister et al., 2003; Gladwell, 2013; Rayle, Kurpius and Arredondo, 2007) as opposed to inaction, which is seen as the natural result of low confidence (Estes and Felker, 2012). Self-confidence might be particularly important for GenZ, who seem less confident than millennials (Twenge, 2018).

Beaumont (2011) found that gender and confidence were closely linked for politics students, with male students being more confident. Hall (2013) and Chamorro-Premuzic (2019) argue that lack of self-confidence makes female students work harder, while Woodman et al. (2010) postulate that effort did not increase with decreased confidence, and that it is, therefore, unclear if self-confidence leads to a performance increase or decrease. Stock, Lynam and Cachia (2018) posit that excessive confidence leads to poorer academic performance for female students but not for male students.

Several researchers have focused on the 'right' level of extracurricular involvement to influence degree attainment. Involvement in sports, and the drinking culture, negatively influences the academic achievement of white male students (Cotton et al., 2016), however, on the other hand, extracurricular activities are perceived as key to developing self-identity, social networks and career opportunities (Stuart et al., 2011). There appears to be synergy between academic studies and extracurricular activities generally (Clark et al., 2015), and civic and political activities in particular (Malafaia et al., 2016). Similarly, research based on male high school

students in the US showed that sporting, but not intellectual, overconfidence predicted increased social success over time (Murphy, Barlow and von Hippel, 2018).

Finally, Williams (2019a) calculated the value-add of HE for numeracy and literacy by comparing PISA studies with the OECD's Programme for the Assessment of Adult Competencies. His findings were in line with those of Badcock, Pattison and Harris (2010), that there was 'only limited evidence that students in their later years of study demonstrated higher skill levels when compared with students in their earlier years of study' (Badcock, Pattison and Harris, 2010, p.454; Williams, 2019a, p.10). Williams (2019a) even found that '[t]he research intensity of tertiary institutions as measured by publications exerts a negative effect [on numeracy and literacy skills]' (p.10) and that government spend on HE has only a small positive effect on numeracy skills.

In summary, similar to the previous section, factors are multi-faceted and interconnected. While for student satisfaction, course organisation and fairness of assessments are important, there are a multitude of factors that seem to impact academic achievement, ranging from level of self-confidence, types of assessments, attendance, extra-curricular activities, sleep patterns, feeling in control of life, and mental toughness. It was found that, overall, there is little evidence that literacy and numeracy skills are increased through tertiary education. The next section investigates factors that are important for career progression, in support of the HE employability agenda (e.g. Dandridge, 2018).

1.3.1.3. Post-university factors: which skills and competencies matter for graduates in the workplace?

'...[S]omewhere between the classroom and the cubicle the rules change and [the students turned graduates] don't realize it... The requirements for adult success are different' (Kay and Shipman, 2014, para. 46). But what are these rules? This section outlines the factors that have been shown to be important for career success and can be taught or reinforced at university. The focus is

on generic characteristics when in employment, not the application process of gaining employment. Yet there is of course an overlap, as employers will look for skills they value in their employees when considering recruitment.

When considering the skills gap of graduates, Moore and Morton (2017) talk about the need to learn how to adapt written communication skills to different constraints, circumstances, audiences and purposes. Clarke (2018) defines graduate employability as individual employment and career outcomes, and notes that, ‘current graduate employability literature focuses primarily on human capital aspects, such as knowledge and skills, and the processes by which they can be acquired and enhanced. In contrast the broader employability literature tends to focus on individual variables (such as personality, attitudes and career-related behaviours)’ (p.1934). It is the combination of knowledge, skills, and individual variables that ‘have the capacity to lead to enhanced perceived employability which will, in turn, strengthen self-confidence among graduates as they embark on their careers’ (p.1933).

Verbal communication skills are considered to be one of the most important skills for the workforce (Blume, Baldwin and Ryan, 2013; Darvin, 2017; Hart Research Associates, 2018; Simonson, 2013). Equally, a lack of comfort in communication is seen as an inhibitor to success. Communication apprehension has been negatively associated with a willingness to take on leadership opportunities, adapting to a new situation, and appreciating a multicultural world (Blume, Baldwin and Ryan, 2013). A study of US business executives and recruitment managers at private sector and non-profit organisations (n=1,001) found that, when asked what learning priorities they value most, the ability to communicate effectively verbally was the highest priority (Hart Research Associates, 2018).

Volubility, i.e. the time spent talking, is also important in the workplace. Power has a strong, positive effect on volubility for men, but not for women.

For powerful women, being highly voluble will result in negative consequences (Brescoll, 2011).

The role of self-confidence is presented next, as it affects many aspects of career development. Both the 'pre-university' and 'at university' sections reported a lack of confidence of female students. Having less self-efficacy, a lower self-concept and lower self-confidence impacts the workplace where confidence matters as much as competence (Kay and Shipman, 2014). The prototype of an ideal charismatic leader is being seen 'as a savior' (Jacquart and Antonakis, 2015, p.1053) who is bold, reckless, and self-centred (Chamorro-Premuzic, 2019).

Anderson et al. (2012) also evidenced that confident and overconfident individuals are perceived by others as more competent. In addition, certain features of narcissism, namely those associated with leadership and authority, are consistently positively associated with self-enhancement (Watts, 2018). It can also be seen by 'self-promoters' getting ahead at work despite working less than others (Armstrong, Olivier and Wilkinson, 2018; Coughlan, 2018).

Confidence is one of the four dimensions of the Career Adapt-Abilities Scale, together with curiosity, control and concern; this scale is based on career construction theory, developed by Savickas in 2005 (Savickas and Porfeli, 2012). This theory emphasises the continuous process of adaptation between actors and their environment to underpin successful career development (Rudolph, Zacher and Hirchi, 2018). The theory can be used to explain why student behaviours and attributes can lay the foundation for developing a more responsible and future-oriented perspective (Dumulescu, Balazsi and Opre, 2015). For example, well-developed career self-management skills, intrinsic motivations (Bridgstock, 2011) and self-monitoring, have been shown to improve the relationship between career adaptability (Savickas et al., 2018) and job search self-efficacy (Tolentino, Sibunruang and Garcia, 2018).

Wichman et al. (2010) propose to doubt one's own doubts to gain confidence. In addition, developing a self-concept is linked to experience and time in a profession, with a noticeable increase of confidence in professional self-concept over time (Gibson, 2003). How reputation is developed seems partly related to 'nature' and partly to 'nurture'. Women, with greater medial prefrontal cortex activity (Garbarini et al., 2014) and a lower level of striatal dopamine release (Kuhn, 2015, Riccardi et al., 2011) seem less focused on the strategic component of reputation building than men (Garbarini et al., 2014). Men with greater dorsolateral prefrontal cortex activity (Garbarini et al., 2014) and a higher level of striatal dopamine release (Kuhn, 2015, Riccardi et al., 2011), are more likely to pursue a profit-maximising strategy irrespective of others' judgments (Garbarini et al., 2014).

A further biological factor that seems to lead to a lower level of self-confidence for women than men is their respective level of testosterone, with men having higher levels of testosterone (Chunwang et al., 2014; van Anders, Steiger and Goldey, 2015). While classifying the level of testosterone as 'nature', the effect of socialisation on human biology, i.e. 'nurture's' influence on 'nature', is still undetermined, with gender socialisation possibly contributing to gender differences in levels of testosterone (van Anders, Steiger and Goldey, 2015).

But what is the 'exact' contribution of the influences of 'nature' versus 'nurture' for self-confidence? Two concepts similar to self-confidence are self-efficacy and agency. Waaktaar and Torgensen (2013) showed, using twins, that 75% of the variation in 'self-efficacy' was due to 'nature' (i.e. genetic factors), with the remaining 25% linked to 'nurture' (i.e. non-shared environmental causes). Bleidorn et al. (2010) also surveyed twins to study variance in 'agency', and found that only 30% was nature (i.e. genetic) and 70% was due to nurture (i.e. non-shared environmental effects).

Society values pushiness, yet women 'naturally' tend to be more agreeable than men and are not as assertive, perhaps because assertiveness in women is

often perceived as aggression (Williams, 2019b). Is it worth attempting to work on the gender-confidence-gap when ‘nurture could be as low as 25%’? Yes, according to Kay and Shipman (2014) and Zenger (2018), especially as confidence seems self-perpetuating (Estes and Felker, 2012). It is also important as the right level of confidence is recognised as important for general mental wellbeing (e.g. Mind, 2016) and mental strength is seen as one of the career enablers for women (Chinchilla et al., 2006).

In summary, there are a multitude of factors influencing academic achievement and career progression, ranging from those determined pre-university, at university, and in the workplace. For the latter, confidence and communication skills seem particularly important, especially when considering the gender divide.

The next part of the literature review centres on Q-methodology studies that researched students’ viewpoints.

1.3.2. Pertinent Q-methodology literature review

In this section the focus is on two bodies of literature: how Q-methodology has been used in the past to measure university students’ perceptions and viewpoints, and the application of an adapted Q-methodology. The focus is on university students rather than workers because workers are used only to contrast against the student findings. The second section also includes the Q-community’s perceptions of an adapted Q-methodology study taken from a 2019 Q-community listserv discussion.

1.3.2.1. *Q-methodology research studies to elicit students’ viewpoints*

Q-methodology was developed by William Stephenson in 1935 (Brown, Danielson and van Exel, 2015; Watts and Stenner, 2012) and is used extensively in psychology, political science, environmental studies, health research, and policy studies (Davis et al., 2014). While Q-methodology is suggested as a method for investigating students’ subjectivities in view of developing pedagogic and curricular practices (Wright, 2013) its use as an

instructional tool in HE seems underdeveloped (Copcha, Rieber and Walker, 2016).

Recent studies that measure university students' attitudes using Q-methodology, comprise broad analyses, such as students' expectations at the start of undergraduate studies (Balloo, 2018), as well as students' viewpoints on a specific topic, such as alcohol (Christensen et al., 2018), geosciences (Young and Shepardson, 2018), non-monosexuality (Brown, Montgomery and Hammer, 2017), food services' potential for environmental education (Slobbé, Miroso and Thomson, 2017), creative media courses (Hiles, 2016), writing related to critical thinking (Leggette et al., 2015), poverty among students (Work, Hensel and Decker, 2015), video-assisted debriefing (Ha, 2014), their own digital literacy (Wright, 2014), acculturation (Bang and Montgomery, 2013), and e-learning (Khatri, 2010).

The work of Balloo (2018) and Hiles (2016) seems closest to the research topic of this thesis. Both used traditional Q-methodology with a typical, relatively small number of participants. As I will explain in Chapter 2, Q-methodology uses inverted factor analysis; sampling in Q-methodology refers to the number of statements presented to participants, not the participants *per se* (Stenner and Rogers 1998).

Balloo collected input from 28 first-year undergraduate students, while Hiles surveyed 13 students taking creative media courses. Balloo enquired into student expectations when they started university and identified three distinct viewpoints: '[1] expecting to put in the hard work and be supported by tutors, [2] expecting a different experience to high school, and [3] expecting to strike a balance between university and everyday life' (Balloo, 2018, p.2251).

Hiles (2016) explored student experiences across their three years of undergraduate studies, and also identified three distinct viewpoints which centred on: (1) fairness, (2) cohort specialisation, and (3) overall support. Four out of thirteen students mapped to the first viewpoint and three each

mapped to the other two viewpoints. Three students did not map on any of the viewpoints and had distinctly different views.

In summary, while there is a wealth of Q-methodology studies that survey the perceptions of students, only two recent studies had a holistic angle which comes close to the research area of this thesis. Both of these studies used a traditional approach to Q-methodology. In the following section, I will review the literature on adapted Q-methodology studies.

1.3.2.2. Opinions on adapted Q-methodology research studies

According to Ramlo (2016, p.33), 'it is commonplace for reviewers and others to focus on a lack of validity and reliability within Q methodology.' In response, a limited number of research studies have followed a non-traditional approach by extending the sample size and/or by adding non-Q statistical tests.

The study with what appears to be the largest Q-methodology sample size, 1,000 participants, is a 2011 audience research on the film 'The Hobbit' (Davis et al., 2014). A further study with a relatively large sample size is a 2017 study on sustainable fashion with 328 participants (Song and Ko, 2017). The study on sustainable fashion also used a Q-R tool which they defined as a 'different' methodology to control for exogenous variables (Song and Ko, 2017). Two further studies go beyond Q-analysis. One study on marketing insights for mobile advertising computed R factor rotation (Kim and Lee, 2015), and one study on the typology of end-of-life priorities in Saudi females which calculates, in addition to Q, simple mean averages and refers to an averaging analysis (Hammami et al., 2016). A theoretical paper by Akhtar-Danesh (2018) explores the appropriateness of Cohen's effect sizes to identify distinguishing statements in Q-methodology. Akhtar-Danesh concludes that Cohen's d is appropriate to use, particularly if the number of distinguishing statements and the number of Q-sorts loaded per factor are independent of each other.

Despite there being only limited research that analyses Q-data using R, or studies with the number of participants exceeding 100, the adapted Q-methodology research debate has become topical and polarised among Q-methodologists on Listserv (Q-METHOD@LISTSERV.KENT.EDU). The Listserv group was created in 1991 and has 1,000 members from 40 countries; 60% of participants are from the US, 16% from the UK and, in third position, 3% are from the Netherlands (Brown, 2019b). Within the Listserv group, there are researchers who advocate applying the traditional Q-methodology exactly how Stephenson developed it in 1935. Others are more open to expanding and experimenting with the methodology, by increasing the number of participants, performing additional statistical analyses, or framing it within distinct research paradigms.

A 2004 study surveyed 40 Q-methodology researchers on their opinions about the future of Q-methodology. There were four distinct factors: (A) 'Orthodoxy Upheld' wished to maintain Stephenson's original Q-methodology with strong intellectual leadership, (B) 'Orthodoxy Applied and Promoted' also wished to maintain the original methodology and see the future in practical application to social issues in partnership with non-Q professionals, (C) 'Orthodoxy Reinforced' were interested in more material in support of the Q movement, and (D) 'Beyond Orthodoxy' were in support of breaking with the past and encouraging Q's accommodation with conceptual and technical developments (Hurd and Brown, 2004).

This thesis is firmly embedded around factor D, both data collection-wise (online survey) and data analysis-wise (by using additional R-type analyses). Factor D participants are described as 'open to moving Q methodological thinking toward dialogue and possible accommodation with other areas of theory and research that do not place a high premium on preserving the orthodoxy of Stephenson's thought or cultivating leadership that maintains it' (Hurd and Brown, 2004, p.66). They 'see great value in the ideas and strategies of Q-methodology but want to move beyond what they consider to be the orthodoxy of Stephenson's views and the traditional uses of Q and in

the direction of innovative applications and resources that reach out to and embrace the wider world of ideas and viewpoints' (Hurd and Brown, 2004, p.67).

In the following, I quote some of the January 2019 listserv discussions on adapted Q-methodology studies. The listserv discussion is highly relevant for this thesis as it anticipates the different 'camps' of the Q-community in response to the adapted research methodology behind this thesis. The discussion started with a listserv comment of a 'traditional' Q-methodologist (position 1, below) who disagreed with the claim of the authors of a non-traditional Q-methodology study to have achieved more than a traditional Q-methodology study by exploring further relationships of shared perspectives of different groups of respondents using empirically significant variables.

Position 1 (traditional position)

'When [a group of authors] state, for instance, that their studies have used more than 800 participants ... they seem to think that the use of small numbers is merely a matter of preference ... Being interested in the relationships between Q factors and variables such as age, gender, class, political beliefs, etc., is simply a manifestation of R-methodology (the use of Q sorts notwithstanding), and the fact that this is considered an achievement belies a conceptual framework that privileges variables and large numbers of cases (and reveals a comparative disinterest in subjectivity as such) and explains why the authors believe that previous Q studies are 'weak' by comparison... They also claim an advantage by incorporating Q-methodology 'within a mixed-method research design'... I don't recall having ever read any Q study that claimed to be social constructionist in character that was discernibly different from any other Q study, aside from the constructionist claim itself... Divest these studies of their claims of being social constructionist or mixed-method... and there is nothing special that seems to differentiate them from any other Q study... as far as a science of subjectivity is concerned' (Brown, 2019a, para. 1-5).

Position 2 (non-traditional position, response to contribution from position 1):

‘[A]pparently the most important task of Q-methodology thought leaders is to enforce Stephensonian doctrinal orthodoxy... We are not primarily interested in recitations of Stephenson’s thought. Further, we reject methodological chauvinism, taking issue with the idea that use of Q necessarily *precludes* use of some other qualitative or quantitative methodology or conceptual framework... We regard *Q itself* as a methodological hybrid since it utilizes elements associated with qualitative and quantitative methodologies, and in so doing can usefully bridge an artificially constructed qualitative/quantitative ‘divide’ within the wider social sciences... We went out of our way... to make it clear that quality in Q research is *not* dependent on numbers of respondents, and we clearly explain that large numbers are unnecessary and considered redundant for the primary purposes of identifying and characterizing the principal viewpoints. To clarify, the process we followed... was as follows: the descriptions of each viewpoint were compiled *first*, based entirely on the factor scores and participants’ comments. Only after those descriptions were complete did we seek to interpret them in light of the [other] categories... Offering such interpretations was intended to help make our findings intelligible in light of the existing body of research on audience reception and to aid comparison with the findings of future studies. ... Use of Q-methodology has grown substantially in the past ten years across a widening range of social sciences. We contend that the spread of Q-methodology to wider and increasingly diverse contexts is a good thing, and that researchers will naturally seek to extend Q’s usefulness in ways not conceived nor necessarily approved of by its originator, for reasons that may make very good sense given the issues and concerns that are most relevant within their own disciplines... However, Q has developed a reputation for dogmatism and chauvinism. Researchers who have presented results of Q research in conferences in their own fields or disciplines may have had the same experience we have had: highly respected colleagues vigorously denounce Q as a cult. We look forward to the day when

Q is no longer preoccupied with apparently existential hagiographic issues' (Davis and Michelle, 2019, para. 4-14).

These two positions show that some researchers believe that the meaning and significance of statements in Q-methodology arise solely in the context of other statements. Adding R-type analyses, according to this 'camp' of researchers, weakens the study. Other researchers, such as the one outlined in position 2, above, are in support of *additional* statistical analyses that are offered by large sample sizes and by collecting additional demographic characteristics. This research project is aligned with the values and thoughts of position 2, i.e. representing a non-traditional Q-methodology point of view.

1.4. Research objective

The purpose of this mixed-methods study is to explore if and how demographic differences in the perceptions of individuals potentially produce the student attainment gap and/or contribute to the reverse pay gap. The study applies an eclectic yet rigorous mix of not-that-well-known methods in an innovative way, which other researchers might want to adopt.

The purpose of this section is to outline the research questions, the timeline, and the originality, as well as the significance of the research.

1.4.1. Research Questions

The primary research for my thesis is split into three phases that build on each other. Phase 1 reviews factors that students consider influential for academic achievement and future employment success. Phase 2 focuses on specific factors to understand differences by demographic attributes. Phase 3 reflects on possible next steps. Each phase has its own incremental research questions. Overall, five research questions guided my research. These research questions can be split across the three research phases as follows:

1.4.1.1. Phase 1

1. What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?
2. Do the students' viewpoints listed in (1) differ compared to other students, faculty, and workers as their future employers/colleagues?

1.4.1.2. Phase 2

3. Do the students' viewpoints listed in (1) differ by demographic attributes, i.e. gender, ethnicity, and nationality, and their intersection?
- [5. Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?]

1.4.1.3. Phase 3

4. 'So what? Now what?' From the findings of (1), (2), and (3), what are the recommendations for teaching in HE?
5. Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?

1.4.2. Timeline

The timeline for this thesis was as follows:

- Academic year 2014/15 and 2015/16: During the taught phase of the Ed.D at CCCU, I explored different methodologies, methods, research techniques and topics.
- Academic year 2016/17: Building on existing literature, I developed a Q-methodology study that measures the correlation between different student groups with distinct characteristics.
- June 2017 to January 2019: I collected and analysed students' and faculty opinions of factors that impact academic achievement and future employment outcome by specific demographics.
- February 2019 to August 2019: I documented and disseminated findings of the research.

The following points provide the reader with an overview of the participants and the timings of surveys. The year of birth of most student participants is also indicated, with GenZs born between 1995 and 2012 (Robinson, n.d.).

- a. June 2017 – December 2017: Primary Research Phase 1.
 - Research focused on students and workers.
 - As part of developing the concourse, the focus was solely on the graduates of summer 2017, i.e. where the majority of students from that cohort were born between September 1995 and August 1996. The initial survey to develop the concourse took place in June 2017.
 - For the ‘main’ primary research phase 1: for the student voice the focus was mainly on the graduates of summer 2018, at a time when the majority of students from that cohort were born between September 1996 and August 1997.
 - The student and workers survey took place between December 2017 and January 2018.
- b. January 2018 – May 2018: Primary Research Phase 2.
 - Research focused on students only.
 - For the student voice, the focus was solely on the graduates of summer 2018 from one single UK business school at a time when the majority of students were born between September 1996 and August 1997.
 - The student survey took place in February 2018.
- c. May 2018 – January 2019: Primary Research Phase 3.
 - Research focused on students and faculty, with some participation of workers.
 - For the student voice, the focus was solely on the graduates of summer 2019 from one UK business school at a time when the majority of students were born between September 1997 and August 1998.
 - Surveys took place between September 2018 and January 2019.

1.4.3. Originality and significance

This research project plans to make several substantial contributions to close gaps in the literature. It aims to be the first study to conceptualise and apply an adapted Q-methodology to investigate students' perceptions of barriers and enablers for academic achievement and future career progression. It also aims to be the first study to contrast attitudinal differences around these perceived barriers and enablers between students, workers, and faculty. Finally, it aims to be the first study to explore perceptions around a self-reported lack of self-confidence of GenZ students in UK HE at the intersection of gender, ethnicity, and nationality. Overall, the purpose of these contributions is to raise awareness for more informed and nuanced audience-centric teaching practices that develop student agency.

1.4.4. Overview of concepts used to respond to the research questions

To achieve the aims of this research project, and in recognition of the uniqueness of the research questions, I used a combination of theories, tools and techniques. While each is explained throughout this thesis, to help the reader gain a holistic overview, they are briefly summarised here as two distinct groups: first, frameworks used throughout the research, and second, frameworks used for specific phases.

I approached this research guided by 'critical constructivism' to establish 'truth as consensus' for all 'Brookfieldian lenses. To achieve strong mixed-methods symbiosis, I followed a dual approach of traditional 'Q-methodology' which aims to illustrate subjectivities and an 'adapted Q-methodology' with additional R-type statistical analyses and qualitative interviews to inform 'theory in relation to practice' (Hammersley, 2012, p.394).

For each research phase and step I deployed additional distinct tools and techniques, for example:

- a. To monitor heterogeneity of the student sample for qualitative surveys in Phase 1, and for focus group discussions in Phase 2, I

applied an implicit association test in addition to working with a diverse set of demographic attributes.

- b. To develop a balanced Q-set and to analyse the Q-methodology findings in Phase 1, I applied attribution theory.
- c. To search for the meaning of faculty interviews in Phase 3, I applied the Kübler-Ross change curve.
- d. To illustrate the impact of findings of the lack of teaching communication skills and boosting students' confidence, I categorised related findings of Phase 2 and Phase 3 by borrowing terminology from Durkheim's sub-groups of functionalism.

Figure 1 outlines the interconnectivity and cohesion of the different frameworks.

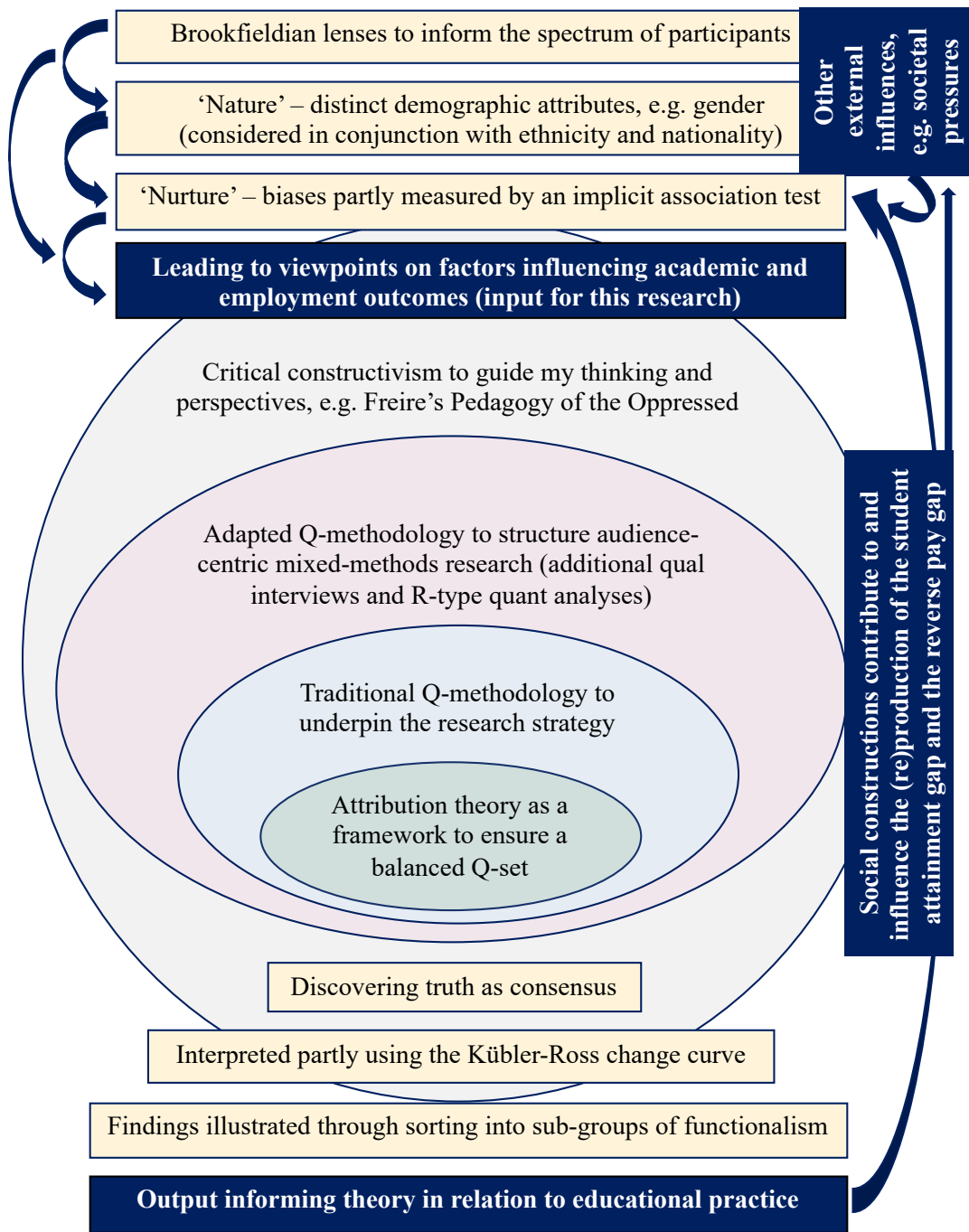


Figure 1: Conceptualisation of frameworks guiding this research.

1.5. Delimitations

This study has several delimitations. By listing the delimitations in the first chapter, I aim to define the boundaries and show how the purposefully set limits define the scope of this thesis. I have categorised the delimitations in three parts: first, the theories, concepts and content which are adjacent to but out of bounds of the scope of the study; second, the delimitations around intersections and multiple-selves; and third, methodological implications and contested decisions that were taken as part of a heuristic and pragmatic approach.

1.5.1. Applicability of theories, concepts and content

This multi-disciplinary research is centred around education, and also touches upon business and management, psychology, sociology and statistics. I have attempted to balance what could be taken from these other specialisms, while keeping in mind the boundaries of the research. There are several key theories that enriched my learning journey throughout my studies; however, they are not explored in great depth. For example, attribution theory informed my research to develop and conceptualise the Q-set but was not fully applicable to analyse findings because it was conceived to be situated within a task environment, such as a single French test, for example.

Attribution theory was initially developed by Heider and then further advanced by Weiner (2010). Attribution theory has been extensively applied in an educational context at university, such as the understanding of students' motivation for and achievement in learning a foreign language (Hsieh and Schallert, 2008). However, what makes it less relevant for this thesis is that attribution theory is centred around motivations for specific tasks and outcomes while, in this study, participants were asked about general perceptions and there is no link to actual achievements and outcome. As explained later, to avoid affecting my sampling of different groups of participants, I decided not to ask questions around academic achievement. I

also did not measure specific behaviour linked with specific assessment outcomes. Hence, students were less likely to consider task difficulty.

A further reason that reduces the applicability of attribution theory is that questions have been raised regarding the arbitrary nature of distinguishing internal and external causes (Dickerson, 2012; Hewstone, 1989). For example, if students stated that they study business because they want to earn a substantial amount of money, it is an internal cause. Should the students word the statement differently, as having chosen to study business because it is a high paying field, then it is an external cause (Dickerson, 2012; Hewstone, 1989). I therefore decided to only apply attribution theory to conceptualise a balanced Q-set and to review and to illustrate findings in Phase 1.

Bandura's (1982) self-efficacy theory also has performance outcomes of a given task as one of the elements. Bandura postulates that a person's beliefs on their own competence impact choice, performance, and persistence. Similarly, expectancy-value theory shows how values and beliefs affect subsequent behaviours, i.e. competence beliefs encourage or discourage students' expectations and task values (Doménech-Betoret, Abellán-Roselló and Gómez-Artiga, 2017). As self-efficacy theory and expectancy-value theory are set in a specific task environment, and, compared to attribution theory, seemed even further removed from the survey questions I administered as part of this research, they were excluded.

A further theory that was considered and dismissed was Schwartz's model of basic human values and pan-cultural baseline of value priorities (Schwartz et al., 2012). The reason why I decided on the non-applicability was because the aim of this research was to specifically target academic and future employment achievements, rather than analysing behaviours or priorities at university generally. Elements such as hedonism values were therefore neither raised by students during the construction of the course, i.e. the initial step of the research, nor at any further research stage.

I also considered theories around possible selves, e.g. Oyserman, Bybee and Terry's (2006) review of possible selves and academic outcomes, and Lips' (2004) assessment of students' perceptions of their current academic selves and of their future possible selves. However, to investigate social and personal identities would have exceeded the scope of this project.

Butler's work on gender performativity, with gender being constructed through compliance with dominant societal norms (Butler, 2009) was also considered; however, like the aforementioned theories, inclusion would have also exceeded the remit of this research.

Similarly, 'native-speakerism' linked to 'othering' of students and colleagues from 'outside the English-speaking West' (Holliday, 2006, p.385) is highly relevant in the current international UK HE setting, however could not be explored in depth and is only covered peripherally.

During my review of the literature, I read about Durkheim's functionalism. While it focuses on the macro-level of society rather than the micro-level (Crossman, 2019), I still borrowed the wording for groupings, without referring to the detail of the functionalist perspective.

A further area that is relevant for my recommendations, but which went beyond the scope of this thesis, is the body of literature on the curriculum. Curricula generally include three key dimensions: knowledge, skills/action, and attitude/self (Barnett, Parry and Coate, 2001). While referred to in the discussion and recommendations chapter, it is not a central theme of this thesis.

I decided not to include social class as part of my primary research for three reasons. First, I noticed in my initial survey when developing the course that it is a sensitive area. By including social class, there was a risk of stretching ethical boundaries and alienating students if they had to disclose social class, and my response rate would reduce. Second, consistent information on social class of all individual students is not readily available

from external sources, i.e. for international students, the information is not requested when they start at university.

Third, the classification of social class might depend on other factors than highest earner income or family income, such as types of ‘households of origin’, e.g. ‘workless’ household, one-earner, single-parent-earner and two-earner household (Zuccotti and O’Reilly, 2019). Similar to not asking students to disclose their social class, I did not ask workers to disclose their social class or their earnings.

For the surveys, I decided to use short student-chosen vocabulary. This means, for example, that although confidence, self-confidence, self-esteem, self-belief and self-efficacy are different, in this thesis they are used to a certain degree interchangeably, and are grouped in the surveys under confidence, as this was the term chosen by students. This approach aims to strengthen the student voice, to identify issues that concern them, and to empower students (O’Neill and McMahon, 2012).

Finally, psychologists describe perceptions as ‘a process which involves the recognition and interpretation of stimuli which register on our senses’ (Rookes, 2000, p.1). Perceptions relate ‘to how we make sense of our environment and sensation refers to the basic stimulation of the sense organs’ (Rookes, 2000, p.2). This is not how perceptions are conceived as part of this thesis. Here, perceptions are used as a synonym for viewpoints, attitudes, beliefs and opinions.

1.5.2. Intersecting identities and multiple selves

Research in the areas of factors that influence academic achievement and future career progression frequently focuses on a single identity dimension, even though multiple identities and their intersectionality have been recognised (e.g. Kourti, 2016 and Holvino, 2010). Crenshaw (1989 and 1991) coined the term ‘intersectionality’ when publishing *Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine* in 1989.

As part of this thesis, I focus on the intersection of gender, ethnicity, and nationality. By singling out nationality, for example, I do not want to frame migrant students as being solely part of a transactional arrangement (UUK-Petition, 2018), but rather I aim to identify and raise emerging issues (Villesèche, Muhr and Śliwa, 2018).

Applying the premises set out by Lorber (1993), it could be argued that I reinforce traditional gender binary thinking and male-female dualities, and at the same time discourage degendering. However, this is unintentional and could be considered in lay terms as ‘collateral damage’. I am also aware that identities are partly socially constructed and fluid (e.g. Holvino 2010, Lorber 1993). Throughout the surveys I offered participants four options for gender. No participant chose ‘gender fluid’, and overall, only three students selected ‘prefer not to disclose’ for gender; all others selected male or female.

When focusing on inter-group similarities or inter-group differences, it might be possible to find affirmation of what one is seeking due to the fluidity and partly socially constructed multiple identities. As Lorber (1993, p.578) points out: ‘when we rely... on the conventional categories of sex and gender, we end up finding what we looked for – we see what we believe, whether it is that “females” and “males” are essentially different or that “women” and “men” are essentially the same.’ Adopting Q-methodology as a scientific measurement to test human subjectivities (Rogers, 1995) and using automated off-the-shelf coding (Zabala and Pascual, 2016), provides a defence to the criticism of ‘having found what I looked for’. By making the invisible visible (Brown, Cervero and Johnson-Bailey, 2000; Diehl and Dzubinski, 2016), I have not reinforced stereotypes but raised awareness and contributed to more informed and nuanced teaching practices that develop learner agency.

As the study respondents were selected from a multitude of cultural backgrounds, I am aware that these cultures will have affected perceptions and cognition (Kastanakis and Voyer, 2014). Moreover, study participants

had a mixture of language skills, with most international students speaking English as an additional language.

As part of the survey, the online reporting tool showed that speakers of English as an additional language needed more time to complete the survey than home students. Interpretation of statements might also have been different. To mitigate these concerns, out of the initial ten students who developed the concourse, there were eight different combinations of gender, ethnicity, and nationality. The only two combinations that occurred twice were two male Han Chinese and two female White British students.

There are many forms of identities, demographics, and personality types, for which information has not been collected. I have already mentioned social class, but there are others, such as sexual identity. This is because the chosen demographics are aligned with those currently collected by BS during the admissions process.

Finally, in order to better prepare students for the workplace, I chose to survey workers using factors developed by students. Despite knowing that there are substantial differences between these groups of participants, both in age and context, I felt this was the most coherent form of comparing students against workers.

1.5.3. Known, intentional, and acknowledged method-related delimitations

For the review of the boundaries I set for the method, I will first explain points related to data input before outlining considerations in the area of data analysis. Overall, there are seven delimitations mentioned in this section.

The first delimitation is the sample size of this mixed-method Q-methodology research project. Q-methodology starts with constructing a concourse. In this case, ten students provided the landscape in which 254 (84+170) respondents were required to position their thoughts. Ten is not a small sample for Q-methodology or qualitative studies; however, it is small in comparison to other quantitative studies. This is not the first study with

such concerns (see Davis et al., 2014). To mitigate related risks, I selected and tested participants for heterogeneity of backgrounds and opinions.

Second, there may also be a sampling bias. There could be both omission bias, as I did not cover all the population I was studying, and inclusion bias as I used non-probability convenient sampling. It is, for example, unlikely that any fully disengaged student will have participated in my research.

The third delimitation is that the data input was via an online survey. Considering small screen sizes, by moving away from the traditional paper-based card laying to an online environment, students will not have had the same overview of all cards before submitting their Q-sort. At the same time, I did not use the latest technological enhancements either, such as eye-tracking, where I could have tracked the focus of participants on particular points.

The fourth delimitation is that when the system presented statements to the participants, the order of the statements could have been randomised. However, I decided that it was more important to ensure consistency between different groups of participants to be able to compare between them afterwards. Statements were therefore presented in exactly the same order to all participants, which means that statements presented in the beginning are perceived as more important (Serfass and Sherman, 2013). I mitigated this risk by not just analysing the prioritisation given in responses, but also the prioritisation compared to when the statement was presented.

The fifth delimitation is that for the data analysis, I chose to consider Likert-type data for a parametric, rather than non-parametric, test. This decision is controversial. Some would argue that it is better to avoid assumptions of equidistance for Likert-type questionnaires (e.g. Cooper and Johnson, 2016); however, there is also extensive literature that confirms that Likert-type scales can be interpreted using parametric statistical tools provided there are at least five categories (e.g. de Winter and Dodou, 2010; Fagerland, Sandvik and Mowinckel, 2011). Using a forced normal distribution also supports the

use of the data as parametric (Foley, 2018). Specifically, this means that I can use Pearson to calculate the correlation. Pearson or Spearman are two main possible ways to calculate correlation; there are others, e.g. Kendall. Pearson is the ‘normal correlation’ used for continuous parametric data. It is also the one which comes as ‘default’ for my Q-methodology R-coded programme, and I can use ‘mean averages’ for my regression analysis to check for statistical significance.

The sixth delimitation is that the research of this thesis represents snapshots at specific points in time (Watts and Stenner, 2005). Exact survey timings are indicated in the timeline under research objectives, earlier on in this thesis.

And finally, the purpose of Q-methodology is to understand shared or divergent subjective viewpoints and perceptions. This is in line with the Thomas theorem, which states that if situations are defined as real by individuals, it is important to focus on these ‘perceived as real’ situations, as it is the situations that define the consequences independent of their actual reality (Thomas and Thomas, 1928 in Merton, 1995). Students’ inputs have, therefore, not been compared against their marks or grades. Thus, despite triggering the research project by outlining the development of undergraduate attainments across gender, ethnicities and nationalities at BS, the research project does not measure data around the grades of participants, nor does it review specific assessments. This does impact the applicability of attribution theory; for example, where motivations are frequently compared to outcomes (Weiner, 2010). I also did not attempt to solve how the learning gains of ‘skills, competencies, content knowledge and personal development’ (Speight, Crawford and Haddelsey, 2018, p.196) can be measured, even though it is an issue currently discussed in HE globally (e.g. Speight, Crawford and Haddelsey, 2018; Usher, 2019).

1.6. Summary

Throughout the literature review, I have explained that the factors predicting academic achievement and career success are complex and interrelated, and

reflect the ‘nature’ versus ‘nurture’ interplay. I have highlighted from the body of literature some key factors, such as confidence, that seem to shape outcomes at various levels across education and subsequent career progression.

Throughout, I positioned achievement and success in neoliberal terms, e.g. high grades or high earnings, rather than considering happiness or wellbeing or the ability to think more freely, be more creative, or deliberate better with others.

This study aims to make several contributions. First, by using an adapted Q-methodology to investigate students’ perceptions of barriers and enablers for academic achievement and future career progression. Second, by contrasting the attitudinal differences around these perceived barriers and enablers between students, workers, and faculty. And third, by exploring perceptions around a self-reported lack of confidence of GenZ at the intersection of gender, ethnicity, and nationality. These contributions are firmly embedded within an evolving global HE landscape where internationalisation is an important facet. The internationalisation of HE seems beneficial both for the receiving nation as well as for the sending nation, however, does bring challenges.

This research is also positioned in the context of new gender pay reporting in the UK. Despite female students outperforming male students at undergraduate level, there is a reverse gender pay gap later in graduates’ careers. The gender pay gap is the consequence of various factors, with self-confidence possibly being one that could be nurtured at university so that the impact could be reduced in the workplace.

Deploying an adapted Q-methodology to investigate final year undergraduate students’ perceptions of barriers and enablers for academic achievement and future career progression at the intersection of gender, ethnicity, and nationality, is original and robust, with Q-methodology having attributes of a scientific measurement to test human subjectivities.

Chapter 2. Methodology and Methods

2.1. Introduction and chapter outline

In this chapter, I will outline the methodology and methods used for the primary research underpinning this thesis and explain the techniques and procedures of the adapted Q-methodology. The chapter is split into theoretical underpinnings and specific tools and techniques. In the autobiographical section in Chapter 1, I explained that I chose mixed methods to strengthen my understanding of both qualitative and quantitative research methods. In the literature review in Chapter 1, I also explained that Q-methodology is traditionally framed ‘just’ as Q-methodology and only recently joined the mixed-methods community (Ramlo, 2016). I pointed out that traditional Q-methodologists argue that when separating ‘studies of their claims of being social constructionist or mixed-method... there is nothing special that seems to differentiate them from any other Q study’ (Brown, 2019a, para. 5).

As part of this thesis, I apply an adapted Q-methodology that aims to convince even the non-Q-methodologists. In the first part of this chapter I will, therefore, be using non-Q language to outline why I chose critical constructivism to inform my study and why I frame this study as exploratory multiphase mixed methods. I will also provide an overview of both the traditional and adapted Q-methodology.

In the second part of this chapter, I will first explain the various aspects of triangulation that are put into place throughout this study and the sampling used. For the sampling section, I will explain the choice of participants using non-Q vocabulary, not the selection of statements defined by Q-methodologists as sampling. The second section of the second part of this chapter explains the detailed tools and techniques used for the adapted Q-methodology for each of the three research phases.

2.2. Generic underpinnings: from epistemology to Q-methodology and beyond

In the first part of this chapter, I will explain why I framed this study within ‘critical constructivism’ and why I labelled this study an adapted exploratory multiphase mixed-methods Q-methodology study. To do so, I followed Crotty’s (1998) suggestion of four questions that need to be answered at the start of the research:

- ‘What epistemology informs this theoretical perspective?’
- What theoretical perspective lies behind the methodology in question?
- What methodology governs our choice and use of methods?
- What methods do we propose to use?’ (p.2)

As mentioned in Chapter 1, the chosen epistemology, i.e. the theory of knowledge underpinning the theoretical perspective and the methodology, is critical constructivism. The theoretical perspective, i.e. the philosophical stance embedded in the methodology, is based on the Brookfieldian lenses of research in the field of andragogic engagement and learning research. These lenses are positioned in ‘consensus theory’ (Bridges 1999) and ‘theory as an explanatory language in relation to practice’ (Hammersley 2012). The methodology used in this research, i.e. the strategy behind the choice of methods, is Q-methodology. Methods are the procedures and techniques deployed for the data collection and analysis of data, such as the surveys and focus groups of this research project (Crotty, 1998).

The remaining parts of this section are split into three parts: first, I will give an overview of the selected epistemology and theoretical perspectives; second, I will provide a synopsis of the methodology; and then third, I will explain the methods used.

2.2.1. Epistemological and theoretical underpinnings

In the literature review, I mentioned that the traditional approach of Q-methodologists is not to position Q-methodology studies in a wider methodological framework. However, as the aim of this thesis is to focus on the non-Q audience, I propose to use Crotty's (1998) explanation of epistemology as the theory of knowledge underpinning the theoretical perspective and the methodology. Each of the epistemologies appeals to specific research paradigms: empirical-analytic (positivist), interpretive (subjectivist, constructivist), and critical (Mingers and Brocklesby, 1997). For mixed-methods, some researchers (e.g. Barkin, 2015; Sjoberg, 2015) propose that one single research paradigm should be used throughout the project, while other researchers (e.g. Bennet, 2015; Mingers and Brocklesby, 1997) propose mixing paradigms in the same research project. I decided to use one single research paradigm, critical constructivism, rather than mixing critical constructivism with, for example, (post-) positivism for the quantitative elements of the study. This is because I agree with Bridges (2001) who sees the purpose of research as:

[t]he power of research to provoke, to disturb taken-for-granted assumptions, to force reflection; its power to lead people to think afresh, to see things differently, to re-evaluate—in short, its educative power—is not necessarily a function of its closeness to truth or even its preoccupation with truth. [...] Closer, rigorous and critical examination of our systems of belief might indeed be a more productive research endeavour than more limited 'testing' of hypotheses derived from relatively minor components of those systems (pp.83-84).

As outlined in Chapter 1, this project aims to provide insights into student attainment gaps and graduate gender pay gaps at the intersection of gender, ethnicity, and nationality and, by doing so, it aims to inform teaching practices. To decide on the research paradigm, I considered the socially constructed influences of people's behaviour as an explanation of observed gender differences. By deploying quantitative data from a constructivist

perspective, I explore how the perceptions of individuals actually produce outcomes. Therefore, with my choice of research paradigm I wanted to acknowledge that social constructions contribute to and influence the (re)production of the student attainment gap and the reverse pay gap.

As part of my literature review for selecting the appropriate epistemology, I was drawn towards ‘pragmatic social constructivism’ by Garrison (1995). Garrison (1995) developed ‘an epistemology for contemporary social constructivism... embedded in the tradition of Deweyan pragmatism’ (p.717) with an aim to ‘dramatically improv[e] epistemology’ (p.738). Garrison combined the ways pragmatists collect data to find solutions and resolve problems, with constructivists aiming to uncover meaning from the data. By referring to Dewey’s work from 1925, Garrison reminds the reader that it is through speech that one can identify with acts and deeds and that one plays many roles. Language, signals, or gestures, are the tools which ignite our minds and ourselves. Garrison (1995) also connects Dewey’s work and Vygotsky’s zone of proximal development, emphasising that Vygotsky stated at the start of the twentieth century that it was impossible to separate learning from its social context. Fleury and Garrison (2014) add that ‘educators should not confine their social constructivism to knowledge and pedagogy while ignoring the social and political consequences of their position... Social constructivism is about the creation of minds, selves, will, and rights’ (Fleury and Garrison, 2014, p.21). Adding the political discourse to ‘pragmatic social constructivism’ becomes ‘critical constructivism’ with critical constructivism rendering ‘the contingency of construction and the play of power as visible as possible’ (Fleury and Garrison, 2014, p.32).

Locating this thesis in ‘critical constructivism’ rather than ‘pragmatic social constructivism’ also seems more appropriate for the third phase, the ‘What? So what? Now what?’ To respond to these questions, which I borrowed from Borton (1970); Driscoll (1994 cited in Driscoll and Teh, 2001) and Rolfe, Freshwater and Jasper (2001), I changed my own teaching practices and asked students for their input on some of the interventions. Changing my

teaching practice in response to student input and research findings comes closer to a critical constructivist research design than a social constructivist research design, albeit a pragmatic one. There are two further reasons why this thesis is situated within ‘critical constructivism’: the application of Brookfield’s four lenses and the relevance of several Freirean concepts.

As outlined in Chapter 1, this research applies Brookfield’s four lenses, with Brookfield advocating critical theory for adult learning and teaching (Brookfield, 1995, 1998 and 2017). The Brookfield lenses are included in this thesis as part of the following components:

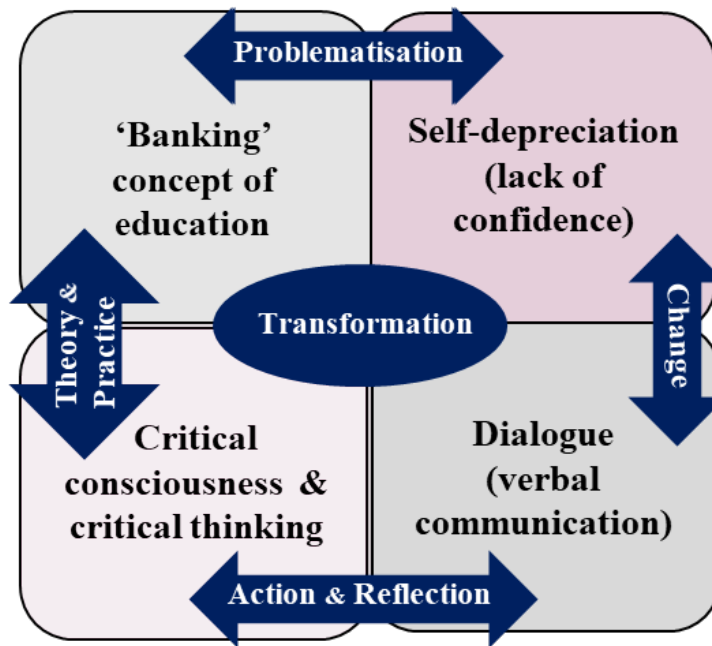
1. Autobiographical lens: I added an autobiographical lens in the introductory chapter as the logic of abductive reasoning, recommended for Q-methodology (Watts and Stenner, 2012), allowed me to add my own personal experiences called ‘naturalistic generalisations’ (Stake, 1995 cited in Creswell, 2014, p.66).
2. Theoretical literature: while the general literature review in Chapter 1 pointed to a research gap in this area, I used several pieces of cognate literature to compare with the findings.
3. Students’ lens: multiple methods, such as surveys, focus groups, and the implicit gender-career association test (IAT) were used as stand-alone analyses and also to create the required input for Q-methodology.
4. Colleagues’ lens: this is similar to triangulation where colleagues provided their thoughts on the findings from the previous three lenses through a group interview and an individual interview (the latter catering for the time commitments of a participant).

As outlined in the first chapter, I introduced one additional stakeholder lens in phases 1 and 3: (5) the non-HE workers’ lens as a proxy for future employers and future colleagues, as well as providing some insights into a potential career trajectory. As indicated in the autobiographical section of Chapter 1, this research was influenced by Freire’s ‘Pedagogy of the

Oppressed' (Freire, [1968] 2017) which is situated within critical inquiry (Crotty, 1998). While the aim of this research is not to deconstruct Freire, there are four key Freirean concepts that are particularly relevant for this thesis. The first is the 'banking' concept of education. As part of this concept Freire describes education as 'an act of depositing, in which the students are the depositories and the teacher is the depositor...[and where] knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing' (Freire, [1968] 2017, p.45). Chapters 3 and 4 will illustrate how students' description of some teaching they experience resemble this Freirean concept.

The second Freirean concept relevant for this thesis is self-depreciation as a 'characteristic of the oppressed which derives from their internalization of the opinion the oppressors hold of them' (p.37). In later chapters of this thesis I will provide student quotes to illustrate self-depreciation and I will also link this concept to a lack of (self-) confidence of female students in particular. The third significant Freirean concept for this thesis is dialogue as 'only through communication can human life hold meaning' (p.50) and 'the common task of learning and acting' can be addressed (p.63). The need for dialogue is, for example, reflected in this thesis when discussing the need for a change of teaching practice away from knowledge transfer that resembles the 'banking' concept of education, towards an increased emphasis on verbal communication skills. The fourth Freirean concept which is relevant for this thesis builds on the third concept, dialogue, as 'true dialogue cannot exist unless the dialoguers engage in critical thinking' (p.65), with Freire explicitly labelling critical reflection as an action (p.101), and with the 'maximum effort at *conscientização* [critical consciousness]...[which aims to] reach everyone, regardless of their personal path' (p.132).

Figure 2, overleaf, shows how these four concepts are linked using further Freirean themes: Problematisation through 'search and creativity' (p.134) and change through 'action and reflection' (p.101) resulting in 'transformation' (p.134).



Source: Adapted from Freire, [1968] 2017

Figure 2: Conceptualisation of relevant Freirean concepts.

Hammersley (2012) identified seven different meanings of theory in educational research. The one that comes the closest to the approach used for this research project is a ‘theory in relation to practice’ with normative, i.e. ‘should’, ‘ought to’ implications. The generated knowledge of this thesis is located within the combined ‘theory in relation to practice’ and Bridges’ (1999) ‘consensus theory’. Bridges’ consensus theory builds on the work of Guba from 1992, and states that something is true if it is as close as possible to a consensus based on available sophistication and information. It ‘effectively turns the truth, or falsity, of a belief into a matter of social agreement’ (Bridges 1999, p.606).

In the following section, I will explain how Q-methodology fulfils the epistemological and theoretical aims of the study.

2.2.2. Q-methodology as an integrated mixed-methods research design

Different methods have been combined to improve the robustness of findings for over 50 years in social sciences (Denzin, 2010), and the number of mixed-methods researchers who combine quantitative and qualitative methods is increasing (Mayoh and Onwuegbuzie, 2015). According to Creswell (2011 and 2014), there are three core mixed-method designs: the ‘explanatory sequential design’ where the quantitative data collection is ahead of the qualitative data collection, the ‘convergent design’ where the qualitative and the quantitative research are intertwined, and the ‘exploratory sequential design’ where the qualitative research precedes the quantitative research. There are two reasons why this project has been designed as exploratory. First, because of the sample size: compared to quantitative studies, the sample size per survey is relatively small. Second, because of the sequence: from the start, qualitative research is positioned before quantitative research.

When aiming to achieve a strong symbiosis of methods, Hesse-Biber (2015) suggests that researchers should not follow a formal ‘off-the-shelf’ mixed-method design, which neither encourages originality nor answers unique research questions. Instead, Hesse-Biber suggests that to create an overall convincing study, researchers should focus on making each method component strong in its own right and then combine the two methods effectively. There are several ways to integrate different methods. First, by design. I have already indicated the three basic designs, ‘exploratory sequential design’, ‘explanatory sequential design’, and ‘convergent design’. In addition, there are others such as multiphase, intervention, case study, and participatory (Fetters, Curry and Creswell, 2013). In a multiphase mixed-methods framework, researchers use three or more phases or stages of data collection which may include different combinations of approaches (Fetters, Curry and Creswell, 2013; Nastasi et al., 2007). Ergo, to create a strong symbiosis of methods, this research follows a tailored multiphase exploratory mixed-methods design.

Effective mixed-methods symbiosis is also established by building effective combinations. In this case, each of the findings informs the data collection approach of the next research step, with findings from different sources confirming the results of the others. Having different data sources that produce similar results increases credibility (Fetters, Curry and Creswell, 2013).

As part of a mixed-methods research community that aims to welcome methodological diversity (Denzin, 2010), Q-methodology is an accepted mixed-methods research technique (Ramlo, 2016). Q-methodology focuses on understanding scientifically the subjective viewpoints of its participants (Brown, Danielson and van Exel, 2015; Watts and Stenner, 2005 and 2012). Q-methodology integrates the qualitative-quantitative dualism by quantitatively evaluating the ranking of shared qualitative viewpoints.

Stephenson (1994) explained that when developing Q-methodology, he had been influenced by the works of Spearman, Fisher, and Freud. Spearman, known for his work on 'factor analysis', was Stephenson's supervisor for his PhD in psychology. From Fisher, a statistician, Stephenson borrowed the principle of 'balanced blocks' as part of the distribution of Q-samples. From Freud, Stephenson was influenced by two psychoanalytic concepts; the pleasure-pain principle and the reality principle, which led Stephenson to the idea of 'self-reference' in explaining consciousness. According to Stephenson (1994), 'self-reference' means that ideas, unlike objective facts (e.g. the time of the day), are infinite and spread via human communication to form subjective viewpoints. By sorting these different viewpoints, expressed through the individual Q-sorts, participants' subjectivities are being captured 'reliably, scientifically, and experimentally' (Watts and Stenner, 2012, p.26).

2.2.3. Tools and Techniques

2.2.3.1. *Traditional Q-methodology related tools and techniques*

For this thesis, the traditional non-adapted Q-methodology follows the guidance of Watts and Stenner (2005, 2012), also see Fischer (2018) and the ‘Key definitions’ at the start of this thesis.

There are four important Q-methodology terms for the **data collection** process that a non-Q methodologists might want to remember:

1. **The P-set:** The list of participants who have submitted their survey, i.e. the participants who not only have been invited to the survey but also have completed the survey.
2. **The concourse:** A list of viewpoints or statements on a topic, equivalent to a list of possible questions that could possibly be incorporated in a questionnaire.
3. **The Q-set:** From the concourse a smaller number of viewpoints or statements that have been selected for the actual survey, equivalent to a questionnaire.
4. **The Q-sort:** Once participants have completed their Q-set it becomes a Q-sort, i.e. the equivalent to a questionnaire that has been completed by the participants.

In addition, there are three important statistical terms for the **data analysis** of this particular Q-methodology study:

1. **Principal Component Analysis (PCA):** A data reduction tool that calculates mathematically the optimal two-dimensional clusters of data.
2. **Varimax:** An orthogonal rotation to capture better the clusters developed by PCA.

- 3. Z-scores:** The distance expressed in standard deviations between the mean average score and a particular score, i.e. the statements with the highest and the lowest Z-scores are the ones that grouped segments of participants agree or disagree with most.

The steps that were applied as part of this research project can be summarised as follows:

1. Development of the *concourse* (the collected full extent of viewpoints on a topic):
 - input from existing material (literature, previous surveys).
 - qualitative research (in this case semi-structured questionnaires with students).
2. Development of the *Q-set* (each completed *Q-set* then becomes the participant's *Q-sort* after sorting):
 - recommended *Q-set* size of 40–80 statements (Watts and Stenner, 2005 and 2012). The *Q-set* size for the first phase of this research project is 45 statements and three test statements.
 - when shortlisting the 'concourse statements' to become '*Q-set* statements' I ensured keeping statements for each of the attribution theory quadrants (see Chapter 4).
 - I also ensured a consistent student voice by keeping the wording as per student input.
 - I needed to decide if statements should be presented to each participant in the same order or in random order. For this study, where I wanted to understand similarities and differences of opinions per demographic attributes, I decided to present the statements in the same order to all participants.
3. Deciding on the number of statements per Likert-scale category, (i.e. how many statements should participants list under 'strongly agree', how many under 'agree', etc.):

- Within the *Q-set* the categories have to be aligned to allow for a quasi-normal distribution; it is possible to use R to calculate the exact number of statements for quasi-normal distribution. The code I used was: ‘make.distribution (48,4)’ with 48 being the number of statements in the *Q-set*, and four being the number of Likert categories either side of the ‘neutral’ middle category, i.e. there were nine Likert-scale categories. The number of statements per category for the first study were: ‘1 3 6 9 10 9 6 3 1’, i.e. participants were asked to rank 10 statements in the neutral middle, one statement on either extremity, and in between 3, 6, and 9 statements.
 - I labelled the scale categories so that the participants had ‘anchoring points... to give meaning to the scores’ (Oppenheim, 2001, p.153).
4. Deciding on other questions that participants were to be asked:
 - relevant demographic attributes.
 - further qualitative input, e.g. open-ended comments; and
 - the order of the survey questions (e.g. demographics before or after the *Q-sort*).
 5. Testing the survey with target participants.
 6. Development of the *P-set*:
 1. selecting a sample of diverse participants; and
 2. given the recommended *P-set* size of 40-60 participants (Watts and Stenner, 2005 and 2012), 57 students and 27 workers participated in the first study.
 7. Conducting the survey, either online or in person. I used QsorTouch (Prunedu, n.d.). Students had to sort statements on a grid similar to Table 2, however, with a different and distinct number of statements per phase (45 in Phase 1, and 12 in the other two phases), and I then analysed the sorted statements as per Table 3.

Table 2: Illustrative exemplar of the placement of statements on a grid.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
-2	-1	0	1	2
<i>Statement</i>	<i>Statement</i>	<i>Statement</i>	<i>Statement</i>	<i>Statement</i>
	<i>Statement</i>	<i>Statement</i>	<i>Statement</i>	
		<i>Statement</i>		

Table 3: Illustrative exemplar of the researcher interface.

Participant	Statement 1	Statement 2	Statement 3	Demographics	Add. Comments
A	2	-1	0	e.g. British, BME, Female	xxx
B	1	0	-2	e.g. Chinese, Han, Male	yyy

Note: CSV/Excel file with rankings per participant converted into a single row.

8. Calculation of the correlation matrix: intercorrelation of each *Q-sort* with every other *Q-sort*, linked to an inverted factor analysis. For the calculation, I used an R-based Q-methodology package (Zabala, 2016). During this process, I tailored the Q-analysis as follows:
 3. Pearson or Spearman correlation coefficient: Pearson is the default correlation coefficient of the Q-methodology programming tools I used. It is normally geared toward continuous parametric correlation; however, it is as reliable as Spearman's correlation also in other settings (Alberts and Ankenmann, 2001). The choice of parametric statistical tests for nonparametric data is explained further both in the delimitation section above and the adapted Q-methodology section below.
 4. There are various approaches to determine the number of factors to retain for a study: e.g. there is the Kaiser-Guttman Criterion where all factors with an eigenvalue (EV) over 1 are retained; or the scree test, where factors should be retained up to where the EVs of factors level off, i.e. using the number of factors which

explain a significant amount of variance and where there is a high number of loading Q-sorts. There is also the ‘magic number seven approach’ (Brown, 1980 cited in Watts and Stenner, 2012, p.106) where seven factors should be retained. I used a combination of approaches for determining the number of factors to be retained for each of the studies within this thesis and explain these in Chapter 3.

5. Each of the identified factors represent a viewpoint that can be represented as a composite *Q-sort*. The composite *Q-sort* illustrates how the participants who load onto that factor would have laid their cards, i.e. how they prioritised their statements (see Appendix B which will be explained in further detail in Chapter 3, Phase 1).
6. The automatic flagging of participants onto the identified factors rather than manual flagging, facilitated the initial interpretation of similarities and differences of viewpoint and brought further objectivity (see Appendix C and further explanations in Chapter 3).
7. Principal component analysis (PCA), representing automatically calculated best mathematical solutions, are default for the Q-methodology package I used for this thesis (Zabala, 2016).
8. Varimax factor rotation is recommended to be used in PCA, and is also the default of the Q-methodology package used for this thesis (Zabala, 2016).
9. I added non-Q-methodology regression analyses, which are explained in the following section.
10. I also added further qualitative studies to discuss the findings. These are outlined later in this chapter.

2.2.3.2. Additional adapted Q-methodology regression analyses

In addition to traditional ‘by-person’ Q-methodology analyses, I have completed further ‘by-variable’ regression analyses. The term ‘regression analysis’ is used here to cover different data analysis techniques that examine relationships between variables. As part of the adapted Q-analysis, which is called ‘R’ by Q-methodologists, I calculated geometric and arithmetic mean averages, performed correlation analyses to check for trends, calculated effect sizes, such as Cohen’s *d*, and analysed variance to check for statistical significance. Statistically significant difference is defined here as a level of confidence with a probability of a null hypothesis being rejected at a specified significance level. In the context of this thesis, the null hypothesis means that there is no significant difference between specified populations and examined variables. Rejecting the null hypothesis implies that there is a statistically significant relationship between specific populations and variables (e.g. Banerjee et al., 2009; Vacha-Haase et al., 2000).

As outlined in the delimitation section, assumptions of near equidistance of a Likert-type scale with five or more categories allows for the use of parametric tests (e.g. de Winter and Dodou, 2010; Fagerland, Sandvik and Mowinckel, 2011). In addition to the literature that supports this decision, there were three further considerations that are relevant. First, the regression analyses were additional to the Q-methodology analyses and also additional to extensive qualitative research. Thus, they only represented additional complementary data. Second, parametric tests, such as an analysis of variance (ANOVA) test, assume that the sample means are normally distributed (Foley, 2018). As each study participant was forced to follow a quasi-normal distribution, the criterion of ‘normality’ for parametric procedures was met. Third, I used a stringent alpha-level to test for significance; i.e. instead of a less stringent alpha-level of 0.05, I used 0.01, 0.005, and in some instances 0.001, fully aware that the lower alpha-level, in turn, increases the risk of a type II error, i.e. I would be prevented from seeing a significant relationship between specific populations and variables if there was one (Banerjee et al., 2009). In other words, the null hypothesis states that there is no significant

difference between specified populations. A type II error means that I would fail to reject the null hypothesis even though the null hypothesis is false. When rejecting the null hypothesis, there is a statistically significant relationship between specific populations; when not rejecting the null hypothesis, there is no statistically significant relationship between specific populations. Hence, the smaller the alpha-level, the more significant the relationship between variables (Banerjee et al., 2009).

2.3. Study-specific techniques and tools

In the second part of this chapter, I will give more detail about the tools and techniques deployed in this study. First, I will explain how I triangulated, how I sampled, and how I used the IAT as one of the measures of heterogeneity by outlook when eliciting student input across several phases and steps of this research. In the second section of this second part of Chapter 2, I will explain the specific research steps chronologically in each of the three phases.

2.3.1. Triangulation and sampling

2.3.1.1. Triangulation

There is extensive method triangulation and data-source triangulation throughout the study. Triangulation is the application of multiple data sources or methods in research to test validity (Carter et al., 2014).

The methods of triangulation used for this research are the inclusion of qualitative and quantitative research methods, with a split of the quantitative research into Q and R-type analyses; working across three phases, where each layer helps to narrow down the scope of the next layer (Onwuegbuzie and Collins, 2007), the use of Brookfield's adapted andragogical approach, and the reflective strategy of 'What? So what? Now what?' (Borton, 1970; Driscoll 1994 cited in Driscoll and Teh, 2001; Rolfe, Freshwater and Jasper, 2001).

This research employs data-source triangulation at three levels: overall triangulation of literature, students, non-students; triangulation within students: BS third year, non-BS third year, non-third year BS; and triangulation within non-students: faculty, workers, autobiographical lens. Figure 3 illustrates the multi-faceted triangulation of this research. A focus on the balance and equity within the data-source triangulation underpinned the sampling strategy.

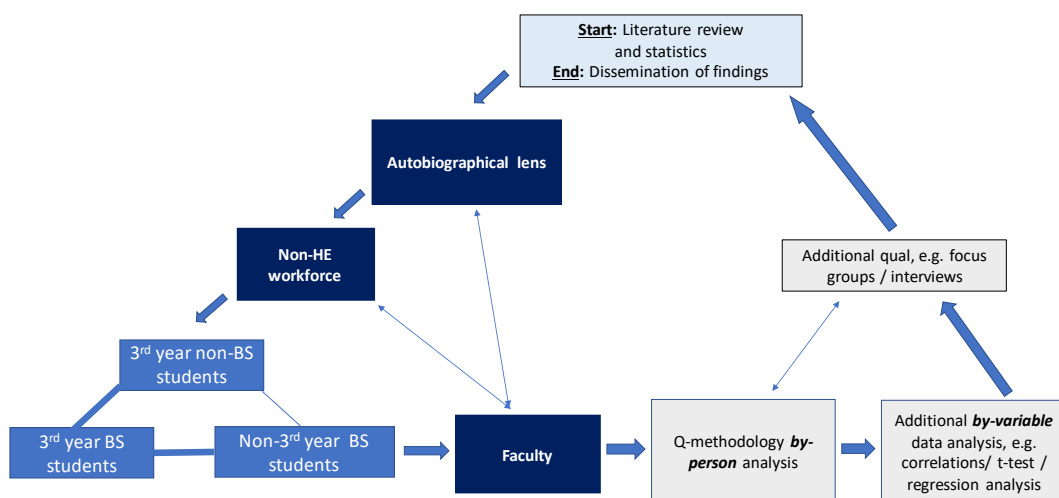


Figure 3: Conceptualisation of triangulation at multiple levels.

2.3.1.2. Sampling

As the overall research sampling strategy encompasses Q-methodology studies as well as non-Q methodology analyses, and as the target audience comprises Q and non-Q research communities and educators, sampling is explained mainly using general research rather than specific Q-methodology terminology. For the latter, the statements are the study sample, not the participants (Stenner and Rogers, 1998). Ethics clearance was obtained prior to the start of the research. For further details on the ethics clearance, see the section entitled ‘autobiographical lens’ in Chapter 1. Overall there were 356 participants, these can be split by phase (Phase 1: n=94, Phase 2: n=179, Phase 3: n=83) or by type of participants (Students: n=304, Workers: n=44, Faculty: n=8).

Throughout the research, non-probability purposive opt-in sampling techniques have been used. This means individuals in the population did not have an equal chance of being selected, which results in biases, including a self-selection bias. Biases were mitigated because Q-methodology participants do not represent the study-sample but represent the variable instead; i.e. for Q-methodology, opinions are sampled rather than participants. For Q-methodology, the participants, i.e. the P-set, are mainly chosen for being experts in their field and for having clear and distinct viewpoints (Stenner and Rogers, 1998).

For the **concourse of the first Q-methodology study in Phase 1** *purposive expert sampling* has been used to fulfil Q-methodology requirements. I selected finalists from the focal university as experts in line with the study aim and the first research question: What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success? I ensured that the chosen individuals were knowledgeable and enthusiastic about the topic and were heterogeneous, as measured by geographic and ethnic diversity. Using an easily accessible gender-career IAT (IAT, 2015) available on the internet, I also checked that participants were heterogeneous by having different implicit biases on careers and gender. Furthermore, I checked for diversity across other demographics (e.g. whether both of the participants' parents worked and whether they had siblings, including their position as a sibling in the family). As mentioned in the delimitation section in Chapter 1, I did not ask about social class or family income during the sampling process for the concourse, or at any later point, as it would have been at the boundaries of infringing sensitive personal information which, in turn, might have limited the number of participants willing to take part in this research project.

In Phase 1, the P-set for the first Q-methodology study (n=84) was divided into four strata:

1. Finalists at BS, the focal school of the university (n=16)

2. Finalists from outside the focal university (n=17)
3. Recent finalists from BS who were students in the first term of an MSc at a different university (n=14) or MSc students at the focal university (n=10) (overall n=24)
4. 'Workers' (n=27)

I decided to compare students with workers from outside HE rather than with lecturers, because lecturers are included in Phase 3 as part of the expert panel. Also, as the focus is on business students, I was much more interested in researching whether what students thought they learned at university is in line with what workers think they require at work outside HE. Furthermore, based on my own experience in HE, I anticipated that lecturers' viewpoints would have been much more homogenous than those of a broad sample of workers from across different industries.

For all four strata, the sample was purposefully developed using *snowball sampling*, with participants being asked to nominate further subjects known to them.

In Phase 2, for the second Q-methodology study (n=170), I used *convenience sampling*, with the aim of reaching out to more finalists from BS than I had during study 1. Mindful of forthcoming industrial action, I administered the survey at the focal university at the beginning of a lecture in week 2 of spring term 2018. The lecture was part of the only core module that term for around half of all finalists and an option for a further quarter of finalists. At the start of the lecture, finalists were told that there was no repercussion if they did not participate. Finalists who did not take the module, decided not to attend the lecture, arrived late, or chose not to participate in the study, are not included. Overall, 31% of the total population participated.

The surveys were complemented by three focus groups. The qualifying dimensions for the two student focus groups were similar to the sampling for the development of the concourse outlined above. The qualifying dimensions for the faculty interviews were demographic diversity in line with previous

definitions and heterogeneity of seniority (two professors, including the Head of Department, one senior lecturer, three lecturers, and one teaching fellow).

For the small-scale clarifying surveys in **Phase 3**, I used *convenience sampling* as part of my teaching; all the students attending my classes were invited to participate in the research at the start of a lesson. As explained in Chapter 3, the small-scale surveys in Phase 3 were distinct from each other, i.e. there was a different focus per class with no repeat surveys across classes or sessions. To help me validate issues that were raised in each of the surveys, I used a research diary, which helped me set up feedback loops and keep track of thoughts behind the research and interpretation of findings.

2.3.1.3. The Implicit Association Test

To increase the robustness of the sampling of the qualitative student data collection process, the IAT was used to measure heterogeneity by outlook. The IAT aims to measure the strength of a participant's automatic association between concepts (IAT, 2015). The underlying idea behind the online IAT administered as part of this research is to test whether somebody has an implicit association between 'male' and 'career' relative to 'female' and 'career'. This is tested by the speed of categorising words (IAT, 2015). According to the developers of the IAT, implicit preferences might predict behaviour for future decision making. There are seven different categories of response, and, for each of the various student focus groups and the course, diversity, i.e. a spread of responses, can be noted among participants. Table 4 shows the spread noted by the developers of the test between January 2015 and December 2015 as well as the spread of IAT results across the initial survey and the different focus groups' participants of this research project.

Table 4: IAT results of key student participants.

IAT results (in percent out of total participants)	IAT generally 846,020 participants 2015	Study participants: 10 students for Concourse	Study participants: 4 students for Focus Group (Home Students)	Study participants: 5 students for Focus Group (Students from Asia)
Strong automatic association of Male with Career and Female with Family	24%	10% (female)		40% (female)
Moderate automatic association of Male with Career and Female with Family	32%	50% (female)	25% (female)	
Slight automatic association of Male with Career and Female with Family	19%		25% (male)	
Little to no automatic preference between Gender and Family or Career	17%	10% (male)	25% (male)	
Slight automatic association of Male with Family and Female with Career	5%	10% (female)		
Moderate automatic association of Male with Family and Female with Career	3%	10% (male)	25% (male)	40% (mixed)
Strong automatic association of Male with Family and Female with Career	1%			
There were too many fast trials to determine a result	n.d.	10% (male)		20% (male)

Source: IAT, 2015 and primary research of this study.

2.3.2. Research steps per phase

2.3.2.1. *The flow of the deployed methods*

As outlined in Chapter 1, the primary research for my thesis is split into three phases. Phase 1 reviews factors that students consider influential for academic achievement and future employment success. Phase 2 focuses on some specific factors to understand differences by demographic attributes. Phase 3 reflects on possible next steps.

To explain the different steps within each phase, I frequently used mixed-method annotation (QUAL, QUANT, qual, quant). The steps that are capitalised are relatively more significant for the overall study and are aligned to Q-methodology.

Each phase starts with a qualitative analysis (QUAL) followed by a quantitative analysis based on Q-methodology (QUANT). This QUANT step is then followed by a different non-Q quantitative analysis using traditional statistical analyses (quant). The sample in phases 1 and 2 for the Q and non-Q steps is, of course, the same. Both phases 1 and 2 then finish with some

further clarifying additional qualitative comments (qual), again from the same sample.

Both phases 1 and 2 follow this pattern: a qualitative analysis with a small number of participants ranging from 8 to 10 participants, followed by a quantitative analysis using Q-methodology which, in turn, is followed by a quantitative analysis using traditional statistical tools with final qualitative comments from students who participated in the quantitative studies. Phase 3 also starts with a qualitative analysis, faculty (group) interviews (QUAL), followed by four small-scale surveys, each based on a different sample. The first of the small-scale surveys was focused on non-HE workers (qual), which was followed by a student-based analysis using Q-methodology (QUANT), the third and fourth surveys use non-Q statistical tools and provide further quantitative and qualitative input, with the quantitative input slightly more pronounced for both (quant -> quant).

As outlined in the first part of this chapter, each of the phases in this research start with qualitative research to build the concourse. The qualitative research then informs the subsequent quantitative research. The quantitative research is complemented by some additional qualitative clarifying comments. Additionally, in between the main quantitative research step and the final qualitative clarifying comments, I have added a generic statistical analysis. This additional step is frequently labelled by Q-methodologists as R (e.g. Kim and Lee, 2015; Song and Ko, 2017). R uses the same data as the Q-methodology studies, but with a different regression analysis founded on a by-variable analysis rather than by-person analysis. In this context, R is different to the open-source programming language that is also called R, which I have used for the analysis of the data in each of the phases, both for Q and for R.

Using mixed-methods annotation, the steps of this research are as follows:
[Phase 1:] QUAL -> QUANT -> quant -> qual -> [Phase 2:] QUAL -> QUANT -> quant -> qual -> [Phase 3:] QUAL -> qual -> QUANT -> quant

-> quant. For each phase, the findings of the first QUAL informed the next data collection process. Each QUANT represents a Q-methodology factor analysis before the additional R quant analysis with further qual comments. As outlined above, the study participants for each QUAL and each QUANT were different, while for the qual and the quant steps the participants were identical to those of the previous QUANT step, except in Phase 3, where QUANT and quant have different participants. For the third phase, points raised in faculty interviews were followed up by one small-scale qualitative survey and three quantitative surveys, all using non-probability convenience sampling, with only the survey 3b (QUANT) aligned to Q-methodology.

The sequence, with the number of participants per step, is as follows [Phase 1:] QUAL (n=10) -> QUANT (n=84) -> quant (n=84) -> qual (n=84) -> [Phase 2:] QUAL (n=9) -> QUANT (n=170) -> quant (n=170) -> qual (n=18 part of 170) -> [Phase 3:] QUAL (n=8) -> qual (n=17) -> QUANT (n=27) -> quant (n=19) -> quant (n=12).

Overall, I wanted my doctorate to be an opportunity to experiment with primary research techniques, with the aim of informing my teaching and enabling me to supervise a broad spectrum of dissertations more effectively. I also wanted to refine and practice my approach to Q-methodology to develop a research method that I can continue to use for my own research in the future. There are two illustrations that provide an overview of the three research phases to support the reader: Table 5, outlined at the end of this chapter, which summarises the research tools and findings of each phase, and Figure 4, overleaf, which provides an overview of the three research phases as a flow chart.

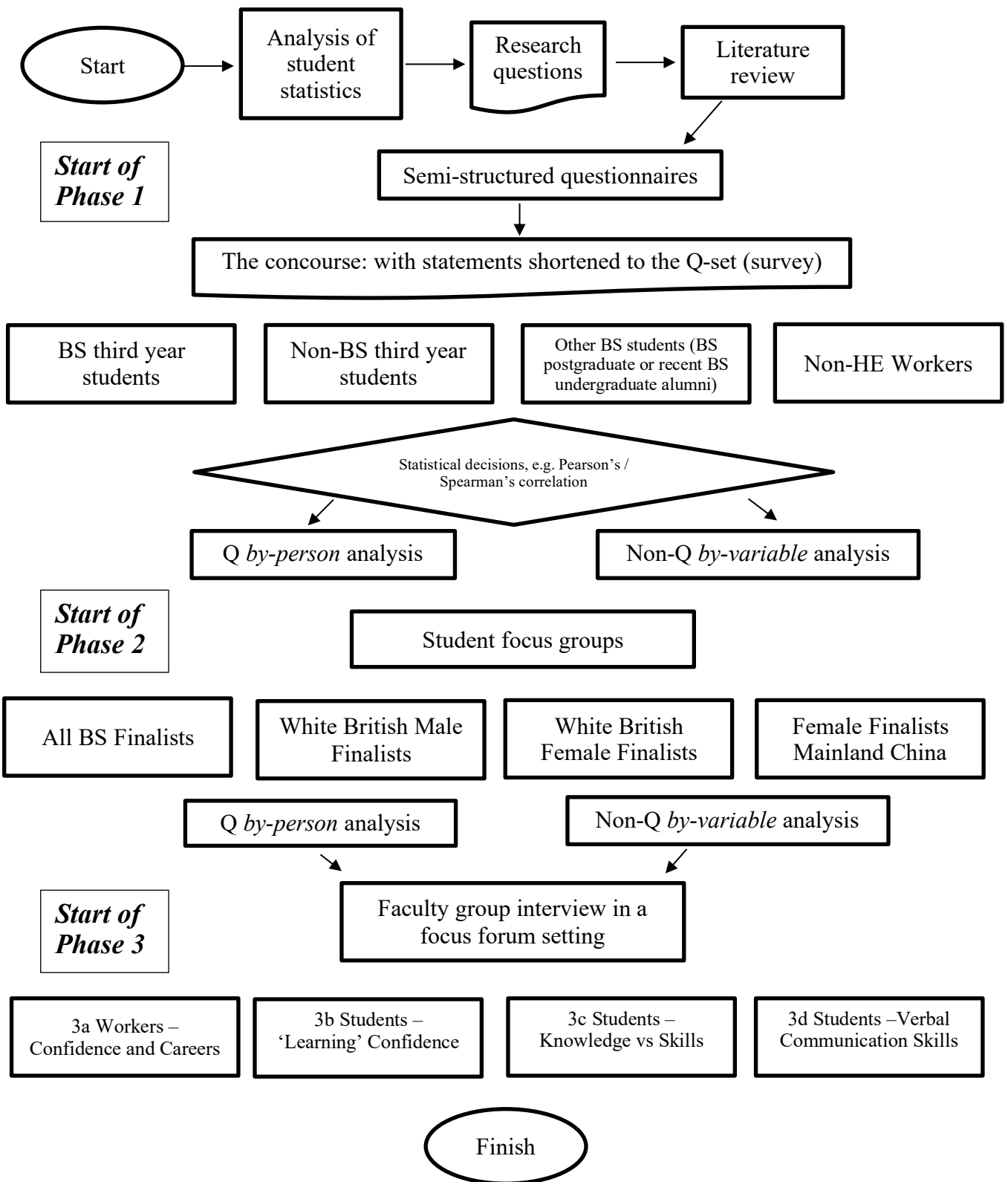


Figure 4: Flowchart of research phases.

2.3.2.2. Phase 1: Factors influencing academic and employment outcome

The study design followed the traditional Q-methodological approach. There were also some distinct features per study phase. The Q-methodology study in Phase 1 had 84 participants across four groups, all of whom sorted 45 statements. These statements were developed by finalists from the focal business school.

The relevant research questions that I tried to address in this phase are:

1. What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?
2. Do the students' viewpoints listed in (1) differ compared to other students, faculty, and workers as their future employers/colleagues?

To develop the concourse, I used semi-structured questionnaires (see Appendix D). Semi-structured questionnaires allowed me to have a structured sequence and focus, while 17 open-ended questions allowed respondents the freedom to answer in their own words. I was thus able to capture less standardised and hence richer and more comprehensive information. The findings of the questionnaires allowed me to avoid any vocabulary in the Q-set where international students seemed to interpret differently the original intended meaning. To illustrate this point, I would like to highlight four examples. First, I noticed that across the statistics used at BS, Chinese can mean Nationality and Ethnicity. However, Chinese classify Chinese as a Nationality and Han, for example, as an Ethnicity. Second, I had to change in the surveys 'degree outcome' to 'degree result', as the initial survey showed that Chinese students associated 'outcome' with the years after university rather than the degree results. Third, I removed the concept of 'negative impact' statements (e.g. spending too much time on social media) and 'positive impact' statements (e.g. being organised) but kept the statements without the additional connotation of positive or negative. The fourth and final example that I would like to present, is that the initial research

phase allowed me to ascertain that, for students from China, analytical and logical skills were perceived as completely different skills, while home students saw these as very similar skills.

I selected my initial sample of 10 BS finalists with a focus on ensuring heterogeneity across the sample by several characteristics: gender (7 female, 3 male), nationality (5 British, 3 Chinese, 1 Austrian, 1 Sudanese), ethnicity (4 white, 6 BME), course studied within BS, number of siblings, position within the siblings (e.g. oldest sibling), and employment (yes/no) of the mother. I also considered outlook on gender and careers, using the IAT explained earlier in this chapter, which ranged from ‘little or no automatic association between female and male with career and family’ to ‘strong automatic association male with career, female with family’ with five out of ten students having had a ‘moderate automatic association for male with career and female with family’).

As the aim of the semi-structured questionnaires was to develop a list of factors that students consider (un)helpful for academic achievement and future career progression, students were not asked to list factors but were asked a series of 17 questions, such as ‘What are/were the objectives you have/had for your studies?’, ‘What are the objectives you have for your future work and life more generally?’ and ‘Who do you think has the higher overall degree outcome out of men vs women, and do you think this is similar for every ethnicity/nationality? Explain why/why not?’

The input from the students provided a list of 98 statements of factors that students might consider (un)helpful for academic achievement and future career progression (see Appendix E). In collaboration with finalists, I then merged similar statements, and discarded statements that were only mentioned once. This reduced the concourse of 98 statements to 45 statements.

I then added three statements that were linked just to the sorting process, e.g. ‘Sort this statement under “Strongly Agree”.’ These statements were

positioned as 1st, 25th and last, i.e. 48th statement. I added three ‘test’ statements, rather than two or four, because these three did not affect the quasi-normal distribution curve where they were meant to be sorted. The quasi-normal distribution for 48 statements is 1-3-6-9-10-9-6-3-1 (Zabala, 2016). For the quasi-normal distribution of 45 statements rather than 48 statements, the two 9s near the middle are replaced by an 8 and the mid-point 10 by a 9. Thus, overall, participants had to sort 45 statements into nine boxes and three test statements into the three middle boxes. The nine boxes ranged from ‘single, most important factor’ to ‘single, least important factor’. The purpose of adding the additional three test statements was to ensure that I could check whether participants understood what was asked. However, I noticed in Phase 1 that it is possible to check whether students understand the sorting process without adding additional test statements, so I purposefully omitted this step in the two subsequent Q-methodology studies.

As outlined earlier, I used snowball sampling because there is no pre-defined set of ‘experts’ that I could have asked, and I wanted to have a coherent approach between my participant groups. I aimed for an approximate share of 15 per group and 60 participants overall. After disregarding inputs where participants did not position the three test statements correctly and ranked statements in sequence of their presentation, there were 16 BS finalists, 17 non-BS finalists from five different universities, 21 non-finalists, 1 student who preferred not to give any further information, and 27 worker participants. In Phase 1, I had slightly more responses than I had initially wanted; however, I had fewer results than I had hoped for from students from China or Hong Kong. As the number of participants shows, snowball sampling seemed to work better for workforce participants, who seemed to be more curious and keener to share the survey with others, possibly also because they receive fewer surveys for completion than students.

In Phase 1, participating students did not receive any compensation other than a chance to win a £20 gift voucher. I noticed that students’ participation did

not seem related to winning the gift voucher, so I did not offer any gift vouchers in subsequent Q-methodology studies.

For the analysis of the data collected, I excluded input where participants had sorted the statements into linear decreasing order. I also excluded input where participants did not complete the three ‘tests’ correctly, i.e. the statements that said, ‘Sort this statement under ‘Strongly Agree’ were not under ‘Strongly Agree’. I analysed the data using first Q-methodology, and then R. Each of the analyses provided a different nuanced view. However, overall findings of each type of analysis were congruent.

For the data analysis of Q and R-data, I used R-programming language and coding based on Anaconda. Using R coding worked well for the Q-type analysis because of the existing codes outlined in the cookbook developed by Zabala (2016). It was impressive to see how a short sequence of codes can perform calculations that would have taken weeks at the time of William Stephenson’s development of Q-methodology. By using coding and automated flags (see Appendix C), I was able to see within seconds the divide between students and workers (note that at the time of attributing flags, the ‘system’ only had the ‘responses’, not participants’ coding). In Phase 1, 33 students loaded on the first factor and no workers. Within the student responses, there was no significant difference between BS and non-BS or third year and MSc students.

Finally, a further finding on the method in Phase 1 was the relevant qualitative input of significant length that I received from several students. Appendix F shows as illustrative example the input one male home student provided under additional comments. Overall 39 out of 84 participants provided additional comments in Phase 1, split into 24 students (out of 57) and 15 workers (out of 27).

2.3.2.3. Phase 2: Differences by demographic attributes

The research questions that I tried to address in this phase are:

3. Do the students' points of view differ by demographic attributes, i.e. gender, ethnicity, and nationality, and their intersection?
4. (Also repeated in Phase 3) Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?

To make sense of the findings of Phase 1, and to prepare the concourse for Phase 2, I chose focus groups to interact with students. I wanted the focus groups to be conducive to constructive dialogues. The initial semi-structured survey indicated a smaller gender divide than a home/international student divide. Also, as I was more interested in understanding the gender difference within nationalities and ethnicities than the ethnicity differences by gender, I chose to mix gender in the focus groups rather than mixing home and international students. In one group, there were male and female white home students and, in another, male and female students from Asia. During both focus group discussions, the differences in gender on the one hand, and international versus home students on the other, were discussed. International students emphasised the international versus home student divide, underpinned by actual, and externally imposed, differences (visa requirements). For example, when prompted for gender attitudes on attending networking events, home students did discuss the gender divide, while there was a clear common 'international students' group-think as part of the international group. This group-think was expressed by spontaneous laughter by all participants, with one student explaining '*international students wouldn't want to go [to networking events] because most companies do not offer a visa for international students. Home students go.*' When asked why students would not want to attend these events solely for making long-term connections rather than finding a specific job, international students explained that the short-term job aspect is company-driven, '*companies do*

not want to talk to international students because they want to find future employees, while international students just want to ask general questions.'

These statements show how externally imposed differences influence perceptions around the international versus home student divide. These statements also confirm that, for this research, it seemed appropriate to mix gender but not home/international students in the focus groups.

Both focus group discussions helped me to interpret the findings of the first Q-methodology survey and design the second Q-methodology survey, which had only BS finalists as a target group (n=170). I administered the survey at the start of a lecture in week two of the spring term 2018. With forthcoming scheduled strike action, I felt that week 2 would reach more students than any other week (in week 1 some students would still be travelling, and also students want to know more about the actual module). Students were told that there was no obligation to participate, and students also knew that they would not receive any incentive. As outlined in the section on sampling, to compare my response rate, I used the BS student barometer, which had a response rate of 19%. Overall, 31% of the total population, so 12% more, participated in the survey of Phase 2.

When considering groups by intersection within the participants, the largest three groups, with around 25 participants each, were: (1) female Han Chinese students from mainland China, (2) female White British students, and (3) male White British students. Statistically significant differences were noticeable for these groups when using 'R'-by-variable factor regression and when drilling down into the perceived barriers of academic and future employment success.

2.3.2.4. Phase 3: 'So what? Now what?'

The relevant research questions that I tried to address in this phase are:

4. 'So what? Now what?' From the findings of research questions (1), (2), and (3), what are the recommendations for teaching in HE?

5. (Repeat from Phase 2) Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?

Faculty group interviews

In Phase 3, I moved away from the traditional Q-methodology insofar that the main aim of the initial qualitative phase was not any more the development of a concourse and a Q-set. Instead, the main aim of faculty interviews was to ensure triangulation overall and to understand the causes and effects of some of the themes.

As anticipated, in comparison to the student focus groups, the faculty group interviews were much livelier, with all colleagues competing for ‘airtime’ and frequently moving between topics. Using a group interview and an interview, rather than focus groups, allowed me to direct the interview slightly more, and balance the dominance of some speakers to ensure that the ideas of less dominant speakers were also explored.

Link between self-confidence and career prospects (qual) - Phase 3a

Phase 3a consisted of a brief follow-up in January 2019 with the non-HE workers. Seventeen respondents from the initial workforce group agreed to provide their thoughts on the question ‘Can you see a relationship between low confidence, especially in women, and their careers and/or the gender pay gap? What reasons do you have for thinking that?’

‘Learning’ Confidence (QUANT) - Phase 3b

Similar to the second Q-methodology study, I used 12 statements and convenience sampling. I wanted to take advantage of a smaller sample (n=27) compared to the previous Q-methodology surveys, and ‘physical presence’ rather than online surveys, to observe individuals when they completed the surveys. By doing so, I noticed that students seemed to have a clear preference for ranking statements rather than grouping them. Ranking statements allows researchers to group ranked statements afterwards in line with Q-methodology’s statements, e.g. the first and second-ranked

statements become ‘strongly agree’ and the third, fourth, and fifth-ranked statements become ‘agree’. One consideration for further online Q-methodology studies might, therefore, be to consider asking participants to rank statements rather than group them.

For the analysis of the data I extracted three factors. These three factors explained 61% of the variance, with anything above 35-40% being considered acceptable (Kline, 1994 cited in Watts and Stenner 2012, p.105). For each of the three factors, there was a mixture of nationalities and gender. No specific trend by nationality or gender has been noticed except, in a similar way to Phase 2, the one student who had to be excluded because he sorted the factors quickly by sequence, was male from mainland China.

Overall, this small-scale study illustrates how Q-methodology can help researchers and practitioners avoid developing proposals based on averages, with proposals that are not popular with many study participants and which have a high mean average solely because they are not disliked by many participants. It also shows that Q-methodology is particularly interesting when there are many distinguishing features rather than an affirmation of consensus.

Knowledge versus skills (quant) - Phase 3c

Rather than using Q-methodology data collection techniques, I asked students to rank statements, starting with 1 as the most important and 5 as the least important. Students seemed to know straightaway what to do and how to rank statements. No participant was excluded because they gave the impression that they did not understand what they had to do; for example, by consecutively ranking statements.

Ranking statements by numbering appears more logical to students. One female international third-year undergraduate student commented on the rationale behind her ranking:

First, you need the reflection to be able to use your brain, then you need to have an idea of knowledge, then gain experience to learn more skills, and finally to put them into action.

As explained earlier, it is possible to group ranked statements afterwards in line with Q-methodology's statement groupings. Therefore, in the future, I will consider asking participants to rank statements by numbering them rather than grouping them.

Earlier in this chapter, I discussed the use of arithmetic versus geometric means. Having a relatively small sample size for this survey (n=19) allowed me to review and illustrate that for this research step, the priority of statements does not change when ranking the means either by arithmetic or geometric mean. However, as part of this research step, the geometric mean is much closer to the third-ranked statement than to the first-ranked statement. Differences by size reflect the number of participants who ranked the third statement rather than the second statement as the most important. This analysis phase showed that for my research, the geometric mean seems slightly more accurate than the arithmetic mean. However, the overall picture is not changed, and the arithmetic mean allows for more straightforward further analyses, such as t-tests and effect sizes, which are more difficult for the geometric mean.

Verbal communication skills to boost confidence (quant) - Phase 3d

Phase 3d consisted of an evaluation of immediate past learning. Four verbal communication skills exercises had been designed to boost 3rd year undergraduate students' confidence during one particular module in the autumn term 2018/19:

1. A 3-minute contributory (assessed) elevator pitch without visual aids where students had to speak individually to a panel of four assessors on a topic of their choice (linked to the module), with written feedback and a mark;

2. A 3-minute 1-slide presentation on a topic assigned by the lecturer to the entire class with individual non-contributory feedback provided (no mark);
3. Three in-class debates (no feedback); and
4. Three individually tailored 6-minute discussions with mentors or tutors on essays (feedback was provided on the content, not on the verbal communication skills).

Students were asked to rank the four activities separately under three perspectives: student satisfaction, employability, and boosting confidence. Twelve students participated in the survey. Students did indicate their gender and nationality/ethnicity, but the sample size was too small to report trends by demographics. Instead, findings are reported overall. This research phase confirmed findings from the previous section that students find the ranking of different activities straightforward. None of the students struggled, asked questions, or ‘complained’ afterwards about forced distribution in the comment box, which is different from the sorting into groups of the previous phases.

2.4. Summary

This research followed an adapted Q-methodological approach and is framed within critical constructivism. Q-methodology focuses on scientifically understanding the subjective viewpoints of its participants. In very simplified terms, Q-methodology integrates the qual-quant dualism by quantitatively evaluating the ranking of shared qualitative viewpoints.

As part of this thesis, Q-methodology data was collected online using QsorTouch, a Q-sort software. The Q-sorts were analysed using an online Q-method package accessed by using R in Anaconda. For the analysis, the statistical tools provided as default in the Q-method package were used, e.g. quasi-normal forced distribution, PCA with automatic flagging, Pearson correlation coefficient, and Varimax rotation. In addition to the by-person tools from Q-methodology, I also applied non-Q by-variable factor

regression analyses and collected qualitative data. The three-phase study design allowed for extensive triangulation. Table 5, overleaf, provides an overview of the three research phases. It summarises elements of this chapter and provides a brief overview of the next chapter, the findings.

Table 5: Summary table of the three research phases.

Summary of the three research phases	Phase 1	Phase 2	Phase 3
Research Questions	<ul style="list-style-type: none"> - What do students in their final year of undergraduate studies perceive as important factors to focus on for academic success and future mid-term career prospects? - Do the students' viewpoints listed in (1) differ compared to other students, faculty, and the workforce as their future employers/colleagues? 	<ul style="list-style-type: none"> - Do the students' viewpoints listed in (1) differ by demographic attributes, i.e. gender, ethnicity and nationality, and their intersection? -- (Should the adapted mixed-methods Q-methodology approach be deployed for future research and if yes, how?) 	<ul style="list-style-type: none"> - 'So what? Now what?' From the findings of the other research questions, what are the recommendations for teaching in HE? - Should the adapted mixed-methods Q-methodology approach be deployed for future research and if yes, how?
Initial Qualitative Research Step	Semi-structured questionnaires with BS finalists in 2016/17 (n=10)	Two focus groups with finalists in 2017/18 (one group home students, one group international students, mixed gender, n= 9)	One faculty group interview (n=7) and one individual faculty interview (overall n=8)
Main Quantitative Data Collection (supplemented with some additional qualitative data)	<p>Factors that influence academic achievement and career prospects:</p> <p>'Common' Q-methodology online, traditional number of statements (45), traditional sample size aim of 15 per segment: Finalists BS in 2017/18, non-BS finalists, non-finalists; non-HE workforce), n=84</p>	<p>Key barriers for academic achievement and career success: Same online packages for data collection (and analysis), fewer statements (24 statements split into two distinct sets of enablers and barriers of 12 statements each), just BS 2017/18 finalists, enlarged sample size (n=170)</p>	<p>3a) Workforce (n=17) - complementary qualitative data on the thoughts of the Impact of self-confidence on careers and the gender pay gap</p> <p>3b) BS MSc students (n=27) - 'Learning' Confidence - Observing students completing the Q-sorting process</p> <p>3c) BS 2018/19 finalists (n=19) - Knowledge & Skills - Using ranking rather than grouping and more qualitative comments</p> <p>3d) BS 2018/19 finalists (n=12) - Verbal Communication Skills - Using rankings to get a snapshot of students' viewpoints on four verbal communication skills exercise with a focus on building confidence</p>
Q-data Analysis	<ul style="list-style-type: none"> - Investigating enablers and barriers combined in one study - Using off-the shelf coding for analysis - Focus on the most common student view for interpretation 	Development of seven student profiles based on perceptions of barriers: The socialiser, the extrovert, the introvert, the organiser, the optimist, the pessimist, the reflector, and the truant	Small sample allowed for determining three clear profiles in phase 3a to boost students' confidence: Students interested in personal support, students interested in more public speaking, students interested in more informative in-class feedback
R- data Analysis	<p>Additional statistical analyses to compare data within and between segments:</p> <ul style="list-style-type: none"> - Regression analysis using coding in R, - Arithmetic mean averages, - Effect sizes (Cohen's <i>d</i>, Glass' <i>Δ</i>, Hedges' <i>g</i>) 	Using Excel (rather than R coding) for the analysis. Focus on barriers as statistically more significant: <ul style="list-style-type: none"> - Correlation, - Arithmetic mean averages, - ANOVA and linear regression; and - Effect sizes 	Using Excel to compare different averages: Arithmetic mean average, median, and geometric mean during phases 3a and 3b (geometric mean and arithmetic mean produced similar results)
Findings	<ul style="list-style-type: none"> - Q-methodology used to identify similarity of student voice, with students focussing on time management - Triangulation: Qualitative Q & R analyses seemed coherent, yet complementary: Using R enriches information and provides information on statistically significant differences and similarities - Students ranked 4 out of 45 areas significantly lower than the workforce: Group work, Verbal communication, Confidence, and Luck 	<ul style="list-style-type: none"> - Increasing the sample size has allowed as part of the Q-methodology study to develop student profiles by segment and to demonstrate that some perceived barriers, such as a perceived lack of confidence and weak verbal communication skills / analytical skills, show statistically significant differences by gender and nationality/ethnicity with medium to large effect sizes - Enablers confirm elements from the literature (e.g. time management more important than organisation) and also showed that group work even when non-assessed is not desired by the majority of students 	<ul style="list-style-type: none"> - Faculty interviews show that there is a dissonance between their and students' understanding of Critical Thinking, their and the literature's understanding of the importance of Technology Enhanced Learning. Interviews also showed a general unwillingness by staff to address skills such as verbal communication and confidence boosting- Third consecutive year of surveyed BS finalists confirmed that students would want to boost their confidence and improve their verbal communication skills, yet faculty seems reluctant. Designing exercises around these areas might not necessarily be encouraging student satisfaction, which might have implications on the league table position of universities - Adapted Q-methodology study produces rich comprehensive data - Recommendation for future studies to use ranking, rather than grouping into Likert-type categories

Chapter 3. Findings

3.1. Introduction and chapter outline

As outlined in Chapters 1 and 2, the primary research for my thesis is split into three phases that build on each other, revalidating some elements and extending and deepening others. Phase 1 reviews factors that students consider influential for academic achievement and future employment success. Phase 2 focuses on specific factors to understand differences by demographic attributes. Phase 3 reflects on possible next steps. Each phase has its own incremental research questions.

In Phase 1, 94 individuals participated in the study: 10 students participated in the initial qualitative step, and 84 participants (57 students; 2 were subsequently excluded because of a clear misunderstanding of the sorting process, and 27 employees from the non-HE-workforce) took part in the other steps of Phase 1. In Phase 2, 179 students participated: 9 students participated in the initial qualitative step, and 170 third-year finalist BS students took part in the other steps of Phase 2. In Phase 3, 83 individuals participated: 8 faculty participated in the initial qualitative step, 17 non-HE workers participated in the workforce survey and 58 students took part in the other three surveys (first survey on confidence n=27, second survey on the balance of the curriculum n=19, and third survey on classroom activities n=12).

The aim of this chapter is to show my intellectual journey throughout the entire primary research process (June 2017 – January 2019). Findings are outlined in chronological order. The individual research steps are grouped into the three research phases. Students' input guided me throughout my research journey.

As explained in Chapter 2, I wanted my doctorate to be an opportunity to experiment with various primary research techniques in addition to the core 'traditional' Q-methodology. My aim was to inform my teaching, enable me to supervise a broad spectrum of dissertations more effectively, and refine the suggested adapted Q-methodology. I am aware that experimenting and

refining techniques across the three phases might make the project organisation appear complex. Figure 4 and Table 5 in Chapter 2 provide an overview of the three research phases and are there to guide the reader through the different research steps of the three phases. To report the Q-methodology findings I follow the convention of Q-methodology reporting outlined by Watts and Stenner (2012, p.219). In addition, Table 6, overleaf, provides the reader with an up-front summary of the Q-methodology profiles that emerged throughout the three research phases.

Table 6: Summary of Q-methodology profiles across the three research phases.

Research Phase	Profile / Factor label	Number of student participants mapped on the factor (n)	Percentage share of n within segment of student participants	Explained study variance by factor	Comment
Phase 1	The planners (STPL-SRL)	33	60%	21%	No worker
	The high-flyers	1	2%	7%	4 workers
	The soloists	5	9%	7%	1 worker
	The analytical thinkers	2	4%	6%	2 workers
	The pragmatists	0	0%	6%	6 workers
	The worriers	2	4%	5%	2 workers
	The realists	2	4%	3%	No worker
Phase 2	The cyber-socialiser	11	42%	29%	Male White British
	The non-planning extrovert	4	15%	15%	Male White British
	The introvert	2	8%	14%	Male White British
	The planner and organiser	6	24%	21%	Female White British
	The pessimist	5	20%	19%	Female White British
	The optimist	5 / 15	20% / 63%	20% / 46%	Female (Wh.Br / China)
	The ingenuous	5	21%	17%	Female China
	The truant	4	17%	12%	Female China
Phase 3	Interested in personal support	6	22%	23%	
	Interested in more public speaking	5	19%	19%	
	Interested in more informative in-class feedback	4	15%	19%	

3.2. Phase 1: Factors influencing academic and future employment success

3.2.1. Overview and research questions

For Phase 1, I planned to combine enablers and barriers to academic achievement and future career progression into one integrated Q-methodology study with 45 statements to be sorted. I also aimed to follow the techniques and advice outlined by Watts and Stenner (2012), e.g. p.61 for the number of statements and p.73 for the number of participants. As explained in Chapter 2, I planned to invite three groups of students and one non-HE adult group of workers with around 15 participants each, i.e. 60 participants. The actual participation across the four groups was n=84 (students n=57 and workers n=27; students were split into BS finalists n=16, non-BS finalists n=17, and BS non-finalists n=24).

The research questions that I tried to address in this phase are:

1. What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?
2. Do the students' viewpoints listed in (1) differ compared to other students, faculty, and workers as their future employers/colleagues?

3.2.2. Semi-structured questionnaires to develop the concourse (QUAL)

The main aim of this phase was to develop the concourse, and from there the Q-set that participants of the first Q-methodology survey had to sort, which in turn influenced all subsequent surveys. Due to the importance of this step, I have included in Appendix D the semi-structured questionnaire template and in Appendix E the student-created concourse statements.

Two unprompted points were predominant in this phase across both genders, nationalities and ethnicities: a perceived lack of effective time management of male students (mentioned by 8 out of 10 students), and a lack of confidence of female students (mentioned by 5 out of 10 students). One female student

linked the lack of confidence to being under stress, another with a search for perfectionism, and a further one mentioned that *'[Women are] more likely to go over topics more to ensure they understand it because of lower confidence in ability.'* These points were mentioned across demographic attributes. The third most frequently mentioned point during these initial questionnaires was how female students disliked group work (mentioned by 3 female students), e.g. *'Group work massively hinders unless we could choose like-minded people'* who ideally speak English fluently, with *'language barriers hindering all nationalities'*. The native-speakerism which I briefly touched on in the first chapter by referring to Holliday (2006) seems reflected in statements such as, that a nationality divide hinders *'Chinese students but also slowing British students etc. in their progress in classes'* (excerpt from Appendix D).

As part of the initial survey, students were also asked if they thought gender or ethnicity had a greater impact on degree attainment when ignoring the level of English linked to nationality. Exactly half of the participants thought that gender was more important, and the other half thought that it was ethnicity. For this question, no trend was visible between the responses and the gender or ethnicity of the respondents.

Finally, one point that became apparent during this initial phase was that several students from China clearly saw a difference between being analytical and being logical. Both were perceived as important and distinct, with students of both genders believing that male students were naturally more analytical and logical thinkers than female students.

3.2.3. First Q-methodology study (QUANT)

3.2.3.1. *The first factor: the short-term planner and self-regulated learner (STPL-SRL)*

The semi-structured survey had allowed me to develop statements which the participants of the first Q-methodology study used to 'tell a story' (Stainton Rogers et al., 1995, p.249). To understand their stories, I had to identify different sorting patterns (Stainton Rogers et al., 1995). To identify

sorting patterns, I had to decide on the number of extracted factors, with each factor representing a unique perspective. To decide on the number of extracted factors I compared the number of participants that were significantly associated with the factor and thus loaded on that factor. I also reviewed overall variances and EVs. While I wanted to explain as much variance as possible, I needed to limit the number of factors to be able to draw conclusions on who thinks similarly, and therefore could not apply the Kaiser-Guttman Criterion outlined in Chapter 2. Extracting seven factors, i.e. following ‘the magic number seven’ approach (Brown, 1980 cited in Watts and Stenner, 2012, p.106), seemed to strike the best balance and came close to the scree test where factors should be retained up to where the EVs of factors level off.

Out of 55 student participants 33 loaded on the first of the seven extracted factors. I called this factor STPL-SRL (short-term planner and self-regulated learner, in short ‘the planner’). The z-scores and ranking of the statements of factor STPL-SRL can be seen in Appendix B. None of the worker participants loaded on that first factor. For the first factor STPL-SRL, the eigenvalue was 17 and the explained variance was 21%. The explained variance across all seven extracted factors is 56%, higher than the minimum of 35-40% that is ordinarily considered sufficient (Watts and Stenner, 2012, p.105). 10 out of 55 students did not load on any of the seven factors. For workers, 12 out of 27 participants did not load on any of the factors.

Appendix C shows the Q-sort flags per participant across all seven factors and the participants who did not load on any factor. When reviewing the spread of flags for students by demographic attributes (gender, ethnicity, nationality, course category), there was no single gender, ethnicity, nationality, course, or university where a disproportionate group of students loaded onto a particular factor. For example, 55% of students who participated in the first Q-methodology study were female, and 58% of students who loaded on factor one (STPL-SRL) were female. 45% of students who participated were White British, and 36% of students who loaded onto

the first factor were White British. The same ratio for BS finalists was 29% (participation) to 27% (loading on the first factor), and for non-BS finalists 31% to 24%.

The majority of the participating students (60%) loaded on the first of the seven factors, STPL-SRL. Students who loaded on this factor seemed to be a 'short-term planner and self-regulated learner' because of the statements they ranked as most important. The statement that was ranked as the most important for this group was '*Time Management*', followed by '*having a good work ethic, revising for a substantial amount of time*', and then in third position '*having good or excellent teachers/lecturers/tutors*'. The fourth most important statement of the 45 statements for STPL-SRL students was '*having ambition for a high overall degree result*' followed by '*attending classes and listening/being on task during lectures and seminars*' in fifth position. The reason I added short-term as a prefix to planner, was because of the de-prioritisation of '*being a member of a society or club at university*' (fifth least important statement of this factor) and thus possibly neglecting networking opportunities.

The 45 statements that students identified as being relevant for getting a good grade were used in a similar format for workers, with some differences. For example, while students were asked to consider their perceptions of factors in view of getting good grades and achieving future career progression, workers had to consider the factors in the context of receiving a high salary. I chose salary as the equivalent because this study coincided with the government investigating the gender pay gap of organisations with over 250 employees. Salaries were seen for these organisations as a way to track achievement. In addition, some words had to be changed. For example, in lieu of asking about '*receiving individual support from teachers/lecturers/tutors*', workers were asked about '*Having an excellent mentor/coach*'.

None of the worker participants loaded on the first factor, and only five or fewer of the 27 workers loaded on each of the other extracted factors of the first Q-methodology study. To understand the extent of the ‘student view,’ it is important to note that besides the first factor with 33 students loading and no workers loading, all six other factors had only between two and six participants (students and workers) loading.

3.2.3.2. The seven factors of the first Q-methodology study

As explained, 60% of students loaded on the first factor STPL-SRL. As for the remaining 40%, Appendix B provides the z-scores and the loading of all seven factors. Appendix C shows the ten students that did not load on any factor.

Based on the highest and lowest ranked statements for each of the factors, I developed the following seven profiles. The number of participants who are significantly associated with each factor, within the number of students, and the explained variance, in per cent, are listed in brackets after each profile:

1. **The planner (STPL-SRL):** Outlined in the previous section, keen on planning and time management, believing that hard work pays off, unaware of (gender) biases (33 participants, 33 students, explained variance 21.03%).
2. **The high-flyer:** ambitious, stress does not matter (5 participants, 1 student, explained variance 6.88%).
3. **The soloist:** consider themselves intelligent, no need to engage in groups or societies (6 participants, 5 students, explained variance 6.87%).
4. **The analytical thinker:** analytical, no excessive social life (4 participants, 2 students, explained variance 6.26%).
5. **The pragmatist:** proactive, unaware of (gender) biases (6 participants, 0 students, explained variance 6.14%).
6. **The worrier:** financial worries, no connections that can help (4 participants, 2 students, explained variance 5.18%).

7. **The realist:** all is related to luck, ambition does not make a difference (2 participants, 2 students, and explained variance 3.41%).

A total of 22 out of 82 Q-sorts were not mapped on any of these seven factors, representing 27% of participants. This finding shows that more factors could have been extracted. However, the seven factors explain 56% of the study variance which is, as mentioned earlier, sufficient according to the minimum of 35-40% that is ordinarily considered as the threshold (Watts and Stenner, 2012, p.105).

3.2.4. First R-analysis (quant)

In addition to the Q-methodology specific analysis, I also conducted traditional statistical analyses to understand the differences between the participant segments. My initial non-Q analysis was how many students and how many participating workers chose each statement as the single most important statement. 15 out of 55 students (27%) chose 'Planning' as the most important statement, while 'Planning' was only chosen by one single worker as the most important statement. Generally, workers had a high spread across the 45 statements. Only 'Work ethic' had three of the 27 participants (11%) who chose this statement as the most important. All other statements had two or fewer participants who chose it as the most important.

I also reviewed the mean averages. These showed that, compared to workers, students appeared to believe in agency. Students felt that it is relatively more important for them, individually, to put in the effort and to want to achieve 'success' rather than just being lucky or being confident. Noteworthy differences are also around group work and verbal communication skills, which are more highly rated by workers.

Specific areas which students rather than than workers considered as substantially more important, were:

- Attendance (difference 1.9; statistical significance: null hypotheses rejected at a level below 0.1%).
- Ambition (difference of 1.5; statistical significance: null hypotheses rejected at a level below 0.1%).
- Analytical skills (difference 1; statistical significance: null hypotheses rejected at a level below 1%).

Areas which workers rated more relevant for their success than did students were:

- Team and group work (difference 2.1; statistical significance: null hypotheses rejected at a level below 0.1%).
- Having excellent verbal communication skills (difference 1.1; statistical significance: null hypothesis rejected at a level below 1%).
- Having luck (difference 1.1; statistical significance: null hypotheses rejected at a level below 1%).
- Being confident (difference 1; statistical significance: null hypotheses rejected at a level below 5%).

For the four areas that workers rated as more relevant for their success than the students did, I calculated effect sizes. To increase accuracy, unlike Akhtar-Danesh's (2018) research outlined in the literature review, in addition to Cohen's *d*, I also reviewed effect sizes using Hedges' *g* and Glass's Δ . Due to the different sample sizes between students ($n=57$) and workers ($n=27$) Hedges' *g* is in this case recommended (Stangroom, 2019). The numbers in brackets are Cohen's *d*, and Glass's Δ , the latter being recommended for groups with different standard deviations (Stangroom, 2019):

1. When comparing the perceived importance of group work between students and workers, the effect size is 1.37 (1.40/1.47).
2. When comparing verbal communication skills between students and workers, the effect size is 0.74 (0.76/0.83).

3. When comparing the perceived importance of luck between students and workers, the effect size is 0.62 (0.61/0.58).
4. When comparing the perceived importance of confidence between students and workers, the effect size is 0.59 (0.61/0.65).

The effect size for point 1 (group work) is considered large, while the effect sizes for points 2 to 4 fall into the medium category (Sullivan and Feinn, 2012). An effect size of 0.5 shows that the difference between the two means is 0.5 standard deviation (Harris, 2002; Williams, 2011).

The difference between the opinion of students and workers on group work is therefore statistically significant with a large effect size. While workers value group work, students consider group work as linked to assessments and 'unfair'. The perceived unfairness is related to some students feeling that they work harder and make greater contributions to their group work, yet receive the same grades as 'free-riders'. Even when explicitly stating in Phase 2 'unassessed group work', students still consider group work as a hindrance rather than an enabler (see findings in Phase 2).

By using linear regression coding on R, I reviewed statistically significant differences between the 45 statements and gender, ethnicity, nationality, and their intersection. I analysed the student group and workers separately and then also compared students to workers. A statistically significant difference is defined as a level of confidence with a probability of a null hypothesis being rejected at a significance level of <5%, <1%, or <0.1%. The most statistically significant difference of these three is when the level of confidence with a probability of a null hypothesis is being rejected at a significance level of 0.1% or less; null hypothesis meaning that there is no significant difference between specified populations. By rejecting the null hypothesis, we accept that there is a statistically significant relationship between specified populations.

Ambition, attendance and group work were different between students and workers at a significance level of <0.1%. Verbal communication skills,

analytical skills and having luck were different between students and workers at a significance level of <1%.

When comparing white and BME students within the student body, the only statement with statistical difference at a significance level of <0.1% was ‘*I could achieve better grades if I were not spending so much time on social media/ computer games/internet etc.*’ (with white students ranking the statement as more important than BME students). There were no statistically significant differences between gender and any of the statements, even with a significance level of <5%. Within workers, the only statement which had a significant gender difference at a <5% significance level was group work (perceived as more important by the female workers).

Finally, it is worth noting that the six barriers included in this first survey, all worded as ‘I could achieve higher...’, are ranked relatively low, for both the majority of students and workers. As outlined in the delimitation section, this might be linked to the self-selected sample. Participants, through the action of participating, might prioritise more enabling factors than non-participants who might have seen more barriers.

3.2.5. Further qualitative input based on the Q-methodology surveys (qual)

As outlined in the Chapter 2, I received additional qualitative comments from participants after the sorting process at the end of the survey. These comments mirrored the findings of the quantitative analysis; for example, one student (female White British) wrote:

Personally, it is important for me to ensure that I am organised so that I can plan enough time to go through all the material that is required. I also noticed that my grades are better when I am doing an extra-curricular activity alongside my studies and also balancing this with social time with friends. The importance of attendance to lectures depends upon the lecturer and the content of modules – if I feel I can benefit more from going through the lecture by myself and doing some extra reading I would rather spend my time doing so than attending the lecture. I think it is

important for me to be surrounded by people who also want to achieve the best grades as it motivates me to work hard too. Generally, I would say that each person has their own individual factors that positively affect their grades – organisation and time management is generally more important among my female friends whereas confidence plays a larger role amongst my male friends.

Two workers commented that ‘*value-based qualities, such as trust and loyalty*’ were missing from the survey. Two others commented that ‘*perseverance*’ and ‘*resilience*’ were missing. One non-Asian worker commented that he did not understand the difference between ‘*analytic*’ and ‘*logical*’. Another commented on the role of luck: ‘*My perception on the role of luck has adapted over time: I used to think it was less important in my earlier career.*’ Overall, the number, thoughtfulness, and length of comments, written by participants after the sorting of statements, suggest a strong engagement of participants throughout the survey until and including the final optional question.

3.2.6. Phase 1 summary

The findings suggest that there seems to be a clear student view that is similar across universities, gender, ethnicities, and nationalities. This view is labelled for this research as ‘short-term planner and self-regulated learner’; the primary aspect of this is that students clearly focus on degree outcome versus future career prospects. The latter seems irrelevant to most finalists. Students seem to deprioritise networking opportunities and instead prioritise short-term planning, time management and organisational skills.

The research also finds that there appears to be a contrast between the written communication skills that students consider important for academic and future career progression, and the verbal communication skills that workers consider important for their own careers.

In addition, findings show that the perception of the majority of students is founded in agency, i.e. ‘what you get is a direct consequence of what you

do', while for workers ethnicity, luck, and team and group work are important factors for success.

The Q and R analyses of the quantitative data collected in Phase 1 show that many students think similarly about the factors that impact their academic achievements and future employment success. This is independent of where they study, what they study, and their gender and ethnicities. Opposed to these quantitative findings are the findings of qualitative data collected at the start of Phase 1, suggesting that there were differences between students from different gender and ethnicities or nationalities which should not be ignored. For Phase 2, I therefore decided to increase the sample size and, in particular, to increase the number of international students participating in my research. In parallel to increasing the sample size, I reduced in Phase 2 the number of statements to be sorted to 24, split into two distinct groups of 12 enabling factors and 12 barriers. This allowed me to focus on some specific elements that were identified in Phase 1.

3.3. Phase 2: Differences by demographic attributes

3.3.1. Overview and research question

The research questions that I tried to address in this phase are:

3. Do the students' points of view differ by demographic attributes, i.e. gender, ethnicity, nationality, and their intersection?
5. [Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how? (Covered partly here in Phase 2 and responded to in full in Phase 3.)]

3.3.2. Focus Groups with students (QUAL)

There were two focus groups, one with home students and one with students from Asia. Both were mixed gender groups. The home student group comprised one female and three male students. In the group of international students, there were three female and two male students. In the group of international students, three students were from Hong Kong, one from

Myanmar, and one from Mainland China. The IAT tests that focus group participants undertook showed a diversity by outlook on gender and career. For the home student group, all four IAT results were different, ranging from a ‘slight automatic association for male with family and female with career’ to ‘moderate automatic association for male with career and female with family’. For the international group, the range of responses was even broader, starting with a ‘moderate automatic association for male with family and female with career’ to a ‘strong automatic association for male with career and female with family’ (see Table 4).

The broad themes that were discussed in both focus groups were: what makes a good lecturer, verbal versus written communication skills, confidence, networking, planning, and other points such as critical thinking, and why social media and joining societies/clubs are perceived as more disruptive than socialising to some students. The transcripts of the focus group discussions can be found in Appendix G.

3.3.2.1. What do students appreciate in lecturers?

The way a good lecturer was described was slightly different in the home student and international student groups. International students seemed to have a more specific type of person in mind, and described good lecturers extensively by outlining what they should **not** be doing. For example, students dislike lecturers who tell them that their work is ‘good’ or ‘great’ and then award them a low mark for their work. Instead, they would appreciate more constructive and explicitly negative feedback before submitting their work. One student statement, which found agreement by all participants, stood out: *‘Our Asian motivation comes from punishment. My mum always used to say, ‘Other daughters get better marks than you. And you are in the same class. Why can’t you get a better mark?’ The tutor can say things negatively without affecting the person, it’s about explaining things – “you should revise this or that”.’* Students also thought that some lecturers do not move around sufficiently when teaching, and do not use enough hand gestures and non-verbal expressions to bring classes to life. All

participants of the international student group felt that too many lecturers *'treat books like a bible.'* According to them, a good lecturer should not be asking students to read specific books and articles and then copying and pasting extracts of the same books and articles into their lecture slides; instead, he/she should provide varied teaching materials. According to this focus group, good lecturers can motivate students by setting individual goals and then checking progress.

Home students echoed the points about variety. *'Being interactive'*, *'mak[ing] students answer questions'*, and *'being enthusiastic about their subject'* were some further sentiments used to describe a good lecturer.

3.3.2.2. Planning and organisation

A female home student explained her planning and organisational skills as: *'Planning needs organisation. Planning is overarching, while organisation needs to be constant. It's about being organised to stick to a plan and making sure the plan gets done in the day'* A male home student responded, *'The problem is that many people waste a lot of time on planning and then give up on their plans. Organisation is for me about colour coding and putting things into folders. Boys in my primary school were always told to revise more like girls, write things up, put colour coding in, be organised and so on. But that was for me too much effort. And still is.'*

A female international student commented *'Planning and time management is a personal issue and everybody should do their own personal planning, some work well close to the deadline others need to work ahead of time.'* A male international student linked planning and organisation to focus. *'Perhaps we [male students] lack some focus. We can focus on things but if it's boring we cannot focus. We don't like memorising things. We like practical things. It takes me a long time to remember knowledge because I feel it is so boring. We focus more on the other things, like games. I get notifications for new games and then I try it out and then forget about time, planning or organisation.'*

3.3.2.3. *Group work*

Group work was already listed in the initial survey in Phase 1 as a factor that hindered students, and also by some as the least beneficial part of their studies. For some students, group work is a particular disadvantage if linked to students who do not speak English fluently. This is because *‘people who can’t write or speak in English is [sic] most noted in group work. Massively disadvantages them and anyone who works with them.’* During the focus group with home students, even for group work without a language barrier, there was a consensus that students dislike group work, e.g. *‘Most students get assessed on group presentations. I don’t like them.’* And, *‘I recently had one, I hated it’* followed by *‘Me too – especially when criticised afterwards.’*

3.3.2.4. *Networking as a career tool*

In the home student group, male students were perceived as focusing more on networking for their career than female students, who were perceived to focus more on getting good grades; for example:

‘Girls fixate on grades quite a lot. A lot of girls have openly said that they are aiming for a first and then focus on that rather than thinking about what happens immediately afterwards’ (female White British) and *‘I think boys seem to network loads. There are many more casual sports you can do for men, e.g. football or rugby, and this then helps to get internships. Through casual sports you can find friends in the right places. And it’s easy to refer to it afterwards, like “Oh yeah, I played you”, or whatever. I got my internship like that’* (male White British).

One student (female White British) commented:

I think this comes back to the confidence thing. I have spoken to a lot of girls who have said that networking is not really useful because they think I am not going to stand out in a crowd and I better work hard, go get a first on my degree which I can then put on my CV as part of my job application, which is going to be more useful, whereas men are more confident and think I’ll look like such a good guy

that they want to remember my name and take me on. Or perhaps I find somebody who supports the same football club as me and I get on really well with and they will want to have me in their firm. So I think perhaps everything interlinks: the confidence, the experienced public speaking, the posh private schools, the being white British male, going to these networking events because you push yourself to go because you are confident. It all interlinks and then ends up propelling more men forward.

Further thoughts by 3rd year home students as to why informal socialising is more popular than clubs and societies were: *'In clubs you are forced to do stuff at certain times – which might get in the way of work – socialising can be moved around to when it suits.'* Socialising also seems less disruptive than social media: *'Socialising is at a time where no revision is taking place while social media is taking over when students should be revising.'*

International students commented that they frequently do not attend networking events as they are often not aware early enough of them happening: *'I often do not know about the events early enough. It's more afterwards that I read about it. It's not transparent enough for students to know about it.'*

3.3.2.5. Verbal communication skills

According to the international student focus group discussion, verbal communication skills are *'against Asian culture. Asians are afraid of speaking. In Asian cultures the teachers speak and don't ask and do not encourage you to give your opinion. We are afraid that you are talking about A but we are talking about B.'* Home students also were not keen on having to speak in big groups: *'An intimate environment is better to learn to express ideas with clarity, which then helps for writing for exams as well. I might have said in the survey that verbal communication skills are not important for students, but now on reflection I think they are important.'*

3.3.2.6. Confidence

On the topic of confidence, one female student from Asia explained why she is not confident: *'I know a lot of people who are more intelligent. That's why I am lacking confidence. I know that I am not intelligent. I know from my experience that other people are more intelligent.'* This was echoed by one home student who said: *'I think girls are less confident in their own opinions, knowledge and theories. They get better grades because they put the hours in. Maybe they are more afraid of failure'*. To which a male student added, *'I think the main difference is risk-taking. Girls are less confident to express their own opinions but rather stick with text book responses. Boys will choose to deviate and then either get a good or bad grade.'* Throughout their focus group discussions, international students frequently linked confidence with courage, e.g. *'Fearless'*, *'Belief in myself and the courage to show it'*, *'Not afraid of asking questions and talking even if I am not good at speaking in English.'*

3.3.2.7. Luck

As outlined earlier, a worker commented on luck as part of the survey: *'My perception on the role of luck has adapted over time: I used to think it was less important in my earlier career.'* Upon mentioning this comment to students, and that students generally had prioritised luck lower than workers, one student responded: *'Students only think about how hard they are working right now, and what they can do now to help in the future – it's not possible to anticipate luck in the future. Perhaps 2 out of 100 students decide that they want to rely on luck but I don't think anybody can reliably do that. Perhaps when you look back on your life later on you are more likely to admit to luck.'* Another interjected, *'Arguably luck is the single most important thing that determines everything – your intelligence is luck, your upbringing is luck. There is the all-encompassing luck that determinists believe in without any agency.'* To which a further participant added, *'I feel like students who consistently do well over a long period rarely rely on luck.'*

3.3.2.8. *Critical thinking*

As a final point during my focus group discussion, I asked why students thought that critical thinking was not mentioned by any students in the first semi-structured survey, or as comments as part of the first Q-methodology survey. In response, it was clear that neither home nor international students really knew what critical thinking was besides being regularly told that they are lacking it. According to students, it seemed to be one of the terms '*where you can put a lot of stuff into it.*' Students questioned whether critical thinking is being critical about other people's ideas or whether it is being critical about their own ideas. A general inconsistency of how lecturers define critical thinking was raised as a further reason why critical thinking is not understood by students and not perceived as a factor relevant for academic achievement or future career progression. In addition to not seeing the relevance of critical thinking and/or not being able to define it, international students especially seem to have the impression that they have to learn facts and theories by heart.

3.3.3. Second Q-methodology study (QUANT)

3.3.3.1. *Reviewing results independent of demographic attributes*

As explained earlier, the Q-methodology study in Phase 2 had a sample size of n=170, representing 31% of the population of BS finalists (see 2018 count in Appendix A). Participants took two short surveys split into 12 statements each for enablers and barriers. When extracting the factors, I followed the principles set out in Phase 1, namely using for large sample sizes 'The magic number seven' approach outlined by Watts and Stenner (2012, p.106). Both for the enablers and barriers, 44 students loaded on the first factors. For enablers, 5 to 14 students loaded on the other six factors and 100 students loaded on all seven factors. For barriers, 6 to 12 students loaded on the other six factors and 99 students loaded on the seven factors. 13 students loaded on factor one both for enablers and barriers. Within these 13 students, demographic attributes were evenly distributed, i.e. 6 women, 7 men; three students were White British, five students were Han Chinese from mainland

China, three were from Hong Kong, one was non-Chinese from Asia, and one was a non-Asian International student. Students were from four different degree courses within BS. Overall, 53% of the 170 participants were female, 45% were male, and 2% of students preferred not to indicate their gender.

As part of the software package, I could see the speed of completion of each survey by individual participants. Generally, it took non-native English speakers longer than native speakers, except for many male students from China who on average completed the survey faster than students from other segments. In addition, as the sample size was smaller for male students from China than for female students from China, all male students from China were not further investigated in the remainder of this second Q-methodology analysis.

Rather than continuing to focus on the results overall, the focus of this research phase is on the barriers for the largest three segments of participants: (1) male White British (n=26), (2) female White British (n=25), and (3) female Han Chinese (n=24). With a total of 75 participating students, these three groups represent 44% of the study sample of 170. I extracted three factors for each of the groups because all female Han Chinese students from mainland China loaded on three factors. For consistency, I kept the number of extracted factors consistent between the three groups.

The main findings across the three segments were:

- 11 out of 26 male White British students recognise social media as a distraction and the main barrier from working to their full potential.
- 16 out of 25 female White British students ranked lack of self-confidence first.
- 15 out of 24 female students from mainland China ranked insufficient confidence first, and 20 female students ranked a lack of analytical thinking as the second highest barrier. According to students' input in surveys at the beginning of the study, the

perceptions of lack of analytical skills in Chinese women as opposed to Chinese men appears culturally perpetuated, less so by students from Hong Kong and other areas in Asia than mainland China.

3.3.3.2. Reviewing barriers by three demographic attributes

As mentioned, as part of this research step, three factors were extracted for each of the three student segments. All nine factors are outlined in this section. Z-scores and key statistics for the nine factors are also displayed in the Q-methodology coding example in Appendix H.

Male White British students

A total of 17 out of 26 Q-sorts were mapped on three factors. The nine unmapped Q-sorts represent 35% of participants, higher than the percentage of unmapped Q-sorts in Phase 1 (27%), which is linked to having extracted seven factors in Phase 1, and only three factors here. The three factors in this survey loaded with 17 out of 26 participants 65% of participants, and explained 58% of the study variance. As mentioned earlier, 58% of study variance is sufficient according to the minimum of 35-40% that is ordinarily considered appropriate (Watts and Stenner, 2012). Out of 12 statements, there was one statement with consensus across the three factors (quality of lecturers and tutors ranked in the neutral middle). Based on the statements ranked at the extremes, i.e. either most important at the top or least important at the bottom end of the scale, the three student profiles of barriers are as follows:

- Factor 1: **‘The cyber-socialiser’**: distracted by social media but confident overall, and also in writing skills. Factor 1 has an eigenvalue of 7.6 and explains 29% of the study variance. 11 participants are significantly associated with this factor, representing 42%.
- Factor 2: **‘The non-planning extrovert’**: poor planning and time management and often not persevering, but good communicator (especially verbally but also in writing). Factor 2 has an eigenvalue

of 3.9 and explains 15% of the study variance. Four participants are significantly associated with this factor.

- Factor 3: **‘The introvert’**: not persevering and a weak verbal communicator but good analytical skills and keen to learn things outside the classroom. Factor 3 has an eigenvalue of 3.6 and explains 14% of the study variance. Two participants are significantly associated with this factor.

Factor 2 is of particular interest: the Q methodology survey in Phase 2 confirmed overall the prioritisation of planning and time management from Phase 1, however, with the additional information that while it is important for both genders, a group of male students believe that they are not effective planners and organisers.

Female White British students

For female White British students, 16 out of 25 Q-sorts were mapped on three factors. Nine Q-sorts (36%) were not mapped. The three factors explain 60% of the study variance. Out of 12 statements, there were two statements with consensus across the three factors. These indicate that female White British students who attend lectures do not see deprioritising job applications, nor not attending networking events, as a barrier. Based on the statements ranked at the top and bottom, the three student profiles can be seen as:

- Factor 1: **‘The planner and organiser’**: a self-reported lack of confidence and poor verbal communication skills, but very organised with excellent time management skills. Factor 1 has an eigenvalue of 5.3 and explains 21% of the study variance. Six participants are significantly associated with this factor, representing 24%. It is worthwhile noting that 64% of female White British students selected a lack of confidence as a key barrier.
- Factor 2: **‘The optimist’**: a self-reported lack of confidence and poor time management skills, but appreciating lecturers and lectures. Factor 2 has an eigenvalue of 5 and explains 20% of the study

variance. Five participants are significantly associated with this factor.

- Factor 3: '**The pessimist**': lecturers not living up to expectations and students having to self-teach things outside the classroom. Factor 3 has an eigenvalue of 4.8 and explains 19% of the study variance. Five participants are significantly associated with this factor.

Female students from mainland China

All Q-sorts (24 out of 24 Q-sorts) were mapped on three factors. This is quite rare and might demonstrate group-think of students from mainland China. While I have extracted three factors for each segment, the number of factors could have been increased for the previous two segments where for each of the two segments, nine participants were unmapped. For this segment, three factors seemed appropriate as all participants loaded on the three factors and explained 75% of the study variance. For this segment, of the 12 sorted statements, there was one with consensus across the three factors (a general de-prioritisation of applying for jobs and not attending networking events). Based on the statements ranked at the top and bottom, the three student profiles can be seen:

- Factor 1: '**The optimist**': a self-reported lack of confidence and a belief of weak analytical skills but generally satisfied with the teaching and learning opportunities provided. Factor 1 has an eigenvalue of 11 and explains 46% of the study variance, so significantly higher than any other factor across the three segments. 15 participants are associated with this factor, representing 63% of participants. This 63% is an even higher percentage of students who mapped on factor one in Phase 1 (60%) where a clear student view of enablers was proposed. Factor 1 bears some similarities with factor 2 of the female British students, with some differences, e.g. that female students from China see their own weak analytical skills in addition to a general lack of (self-) confidence as a key barrier.

- Factor 2: **‘The ingenuous’**: poor time management, and weak analytical skills, but not distracted by social media, and besides those weak analytical skills generally feeling confident. Factor 2 has an eigenvalue of 4 and explains 17% of the study variance. Five participants are significantly associated with this factor.
- Factor 3: **‘The truant’**: not persevering and not attending lectures but verbal communication skills and teaching themselves skills is not an issue. Factor 3 has an eigenvalue of 3 and explains 12% of the study variance. Four participants are significantly associated with this factor. The choice of title for this group is, of course, slightly misleading as students did attend the lecture where the survey was administered. However, the lecture took place at the start of the term with attendance generally decreasing towards the end of the term.

3.3.4. Second R-analysis (quant)

3.3.4.1. Correlations

For this second non-Q R-analysis, I reviewed the correlations of all 24 statements by the intersection of gender, ethnicity, and nationality, as well as degree courses studied within BS (see Appendix I). The five strongest correlations, each +/- 0.3 or more, are highlighted in Appendix I and are as follows:

1. If students consider themselves to be weak in writing skills, they persevere and put in extra hours.
2. If students perceive themselves to be weak verbal communicators, they are less likely to blame their lecturers for their lack of achievement (this combination is particularly notable for female students from mainland China, who tend to not blame lecturers, and think they, themselves, are weak verbal communicators).

Three correlations of the five correlations at +/- 0.3 were linked to low confidence. If students perceive themselves to have low confidence, they:

3. Do not blame their lecturers for their lack of achievement.

4. Are open to teaching themselves new skills.
5. Are more likely to attend lectures.

Perceived low confidence is also correlated to a perception of poor verbal communication skills (+0.27) and poor writing skills (+0.21). Across all 24 barriers and enablers, the statement 'lack of confidence' has the most significant impact on other statements.

A final comment on correlations – the only demographic correlation with a factor of more than +/- 0.2 was a link of gender towards deprioritising attending networking events (0.21), with female students seeing a lack of networking events as not being a barrier for academic achievement and future career progression. This de-prioritisation of networking events by female students had already been noted in Phase 1 and been discussed with students as part of the focus groups. Hence, triangulation is evidencing consistent outcomes. Thus, for this research project triangulation adds rigour to the methodology and validates the findings.

3.3.4.2. Mean averages by intersections

As a second step, I reviewed the mean averages of the prioritisations across the intersection of gender, ethnicity, and nationality (see Appendix J). On average, female White British students (n=25) ranked the lack of confidence as the highest barrier. Female students from mainland China (n=24) ranked the lack of analytical thinking highest, followed by poor writing skills, and then lack of confidence and verbal communication skills third. Male White British students (n=26) ranked '*social media and general on-screen procrastination during planned revision time*' first.

3.3.4.3. Significance testing

The third step within this phase was testing for significance using ANOVA in Excel. As seen earlier, a relatively high proportion of White British female students rated lack of self-confidence as the main barrier. When comparing the 51 White British participants (male, n=26; female, n=25) with how they ranked lack of confidence, the correlation between gender and lack of

confidence is 0.41, translating to a p -value of 0.003. This is lower than an alpha-level of 0.5%, so statistically significant.

When comparing White British female students and female students from mainland China, the difference in ranking for the statement '*Having poor lecturers and tutors*' shows that a group of White British female students seem ready to blame the lecturers, or consider them as ineffective, while female students from China do not see lecturers as a barrier to academic success. This is reflected by the difference of the mean averages of the ranking of 0.48 versus -0.71 with an ANOVA p -value of 0.000037, lower than any previous ANOVA regression analyses and lower than an alpha-level of 0.01%.

Based on mean averages and focus group discussions, networking events seem more important for White British male students (-0.12 standard deviation of the sample (STDEV.S) of 1.03) than for White British female students (0.4, STDEV.S 0.76) and, in turn, even less important for female Chinese students (0.92, STDEV.S 0.72). An ANOVA regression analysis shows that, across the three groups, the p -value for gender compared to networking events is 0.00053, and for nationalities and ethnicities compared to networking events it is 0.00058, i.e. both are statistically significant.

3.3.4.4. Effect size

As the fourth step within this phase, I calculated Cohen's d effect size. Cohen's d compares the mean difference between two groups divided by the pooled standard deviation (Stats, 2016), aimed at measuring the size of the effect. A d of 1 indicates that the compared groups differ by 1 standard deviation or 1 z-score. An effect size of 0.2 and above is considered a small, an effect size of 0.5 and above is considered medium, and an effect size of 0.8 and above is considered large (Harris, 2002; Walker, 2008). Cohen's d is recommended for similar sample sizes and similar standard deviation (Stangroom, 2019).

Cohen's d effect size for the difference in the perception of a lack of confidence between female White British students and male White British students falls into the 'large effect size' bracket at 0.87.

Cohen's d effect size for the difference of the mean averages for networking was 0.57 when comparing female white British students to male white British students (medium effect size) and 1.17 when comparing female Chinese students to male white British students (large effect size).

For this research project, the largest effect size of 1.3 (Cohen's d) was noted when comparing female White British students and female Chinese students in their attitude to considering ineffective lecturers as a key barrier. While a group of female White British students readily blame lecturers, female Chinese students tend to not blame lecturers.

3.3.5. Qualitative input on confidence (qual)

Students completed the Q-sorts in Phase 2 at the start of the lectures, and therefore had less time than in Phase 1 for detailed qualitative input. I had asked students to provide their email address if they were willing to be contacted for some follow-up questions. In these follow-up questions, I asked 18 students about confidence.

There seemed to be a consensus that '*Confidence is believing in yourself and your abilities*', '*not having self-doubts*' and to '*not be afraid to do what you want to do.*' In addition, one participant suggested that '*Confidence is when one is happy with oneself. Happy with your own appearance*', and another said '*Confidence is about being at ease in different environments. Lacking confidence means that it takes me longer to be at ease and achieving [sic] my full potential – and others see this as well and might take advantage of it.*'

Students commented that female students are perceived to have less self-confidence than male students because they care more about results and therefore put themselves under more pressure and tend to be more stressed than men. Also, student responses indicate that relatively more female

students seem to be seeking the approval of peers and trying to please their parents than the average male student. Current societal expectation and images from branding on social media still appear to put more pressure on females to look good, or even, according to one female student, are '*portraying an unachievable body image.*' Moreover, according to the participating students, societal expectations still seem to make it acceptable for women but not for men to have low self-confidence. Moreover, self-confidence still frequently seems to be associated with power, and if females portray these traits, they are not liked and seen as '*too bossy*'.

According to students, achieving good grades, completing projects, and receiving job offers can boost confidence, while achieving unsatisfactory grades, especially when linked to superficial feedback, reduces confidence. While these thoughts were expressed by several students from different gender and different nationalities, only male students mentioned both job offers and grades; female respondents talked only about grades and assessments, not job offers.

3.3.6. Phase 2 summary

Phase 2 confirmed some of the findings from Phase 1; for example, that female students in particular, deprioritise networking opportunities and instead focus on short-term time-management issues. Findings also suggest that students do not consider critical thinking skills relevant for their learning in preparation for their future careers, and do not think faculty teaches critical thinking skills consistently. Instead, as part of focus groups, students commented on the volume of facts and theories they have to learn by heart.

Applying in this research phase the adapted mixed-methods Q-methodology approach developed in Phase 1, two findings stood out for their statistical significance and large effect size: a perceived lack of confidence by female White British students compared to their male counterparts, and the readiness to '*blame the lecturer*' by one segment of White British female students, especially when compared to students from China.

Developing different viewpoints demonstrated that, while the average makes it seem as if all female White British students readily *'blame the lecturer'*, there are only some students who are critical of lecturers; others really appreciate their lecturers, and again others are ambivalent about the impact of lecturers on their academic achievement and future career progression.

3.4. Phase 3: 'So what? Now what?'

3.4.1. Overview and research questions

There were a multitude of research findings across Phases 1 and 2 that would have been interesting to investigate further. However, three perceived barriers stood out: a lack of confidence, ineffective verbal communication skills, and weak analytical skills.

A lack of confidence, especially by female students, independent of nationality, was raised throughout the research, starting with the initial semi-structured survey, where, without probing, half the participants mentioned it as a factor to consider when evaluating the gender achievement gap at university and the reverse pay gap in the business world. Both confidence and verbal communication skills were areas with a gap between students and workers in Phase 1. These were also areas of student concern expressed both in the survey and in the focus group discussions in Phase 2. In addition, due to their relevance to all lecturers in HE, they are appropriate areas for the third phase in the research, the 'So what? Now what?'

Analytical skills, compared to verbal communication skills and confidence, seemed less important to pursue in Phase 3 for three reasons. First, the issue seems specific to one student segment (female students from mainland China) rather than several student segments. Second, these skills do not appear to be a weakness compared to the requirements of workers, and third, they seem less generalisable for teaching practitioners where many subjects do not have the opportunity to integrate extensive numerical analyses. Having said this, I did raise numerical and analytical skills as part of the faculty group interviews, and I did speak separately to course directors to ensure that BS

changes its provision of numerical and analytical modules. Since then, there has been an increase in accounting and finance modules as part of generalists' degrees. I also increased the amount of analytical exercises when teaching Socially Responsible Investing and Impact Investing.

Phase 3 began with faculty interviews, to put the findings of Phase 1 and 2 in context and to inform the concourse of the Q-methodology study in Phase 3. Points raised in faculty interviews were then followed up by a Q-methodology study and three small-scale surveys. As part of the faculty interviews, seven colleagues took part in a group-based interview in a focus forum setting. One colleague who was unavailable for the group-based interview was interviewed separately; he was invited because of his unique perspective with over 40 years of teaching experience. The aim of the faculty interviews was to put the findings of my research into a broader context, possibly find some explanations, and to inform the discussion on potential next steps.

Faculty interviews were complemented by one small-scale non-HE workers qualitative survey and three quantitative student-centred studies to test some of the areas that faculty had raised and also to test different ways of collecting data in the future. In the first student-centred study in Phase 3, I gauged students' understanding of what they perceived lecturers should be doing to boost students' confidence. In the second study, I asked students to rank broad areas of the curriculum (knowledge, skills, action, experience, and reflection) by their perceived importance. In the third study, I asked students to review four verbal communication initiatives that they participated in, under three aspects: student satisfaction, employability, and building confidence.

The relevant research questions that I tried to address in this phase are:

4. 'So what? Now what?' from the findings of research questions (1), (2) and (3) – what are the recommendations for teaching in HE?

5. (Repeat from Phase 2) should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?

3.4.2. Faculty interviews (QUAL)

There were two main themes that I explored during the faculty interviews. On the one hand, the role of knowledge rather than transferable skills and, on the other, a perceived lack of confidence of female students. For each theme, there were three sub-themes. The first sub-theme was whether faculty agreed with the assertion, the second was whether they agreed with the proposed action to rectify the assertion, and the third was what exactly we could do to support the proposed action. At the end, I added a question on technology-enhanced learning because of the previous findings that students are not especially interested in technology-enhanced learning, and I wanted to gauge colleagues' perceptions. There were two interviews, one group interview and one individual interview. The transcripts of both can be found in Appendix K.

3.4.2.1. *Knowledge versus transferable skills*

In HE, is knowledge-transfer dominant compared to teaching transferable skills and have things changed in the last decade?

Overall, there seemed to be a consensus that knowledge transfer compared to teaching transferable skills is dominant; however, there was no agreement on whether the teaching of skills has changed in the last decade. For example, two lecturers who both have taught for over 40 years expressed their views differently.

Lecturer (female, British):

Higher education is certainly very different today than when I went to university but then that might not be a general thing. I was taught in a lecture 'stuff', then had to read articles on the same stuff and then went to seminars to discuss what we had read. I do not think we do this

anymore. I think we recognise that knowledge is fluid and dynamic and we do try to concentrate on getting students to think critically and ask them to apply their knowledge.

Lecturer (male, British):

We tend to default to a list of indicative content and that inevitably is knowledge driven as indicative content is framed through knowledge. We tend to want to cover things and perhaps student expectation drives that as well. So, looking back over 40 years of practice, there are only few sessions that were dedicated to skills acquisition. 5% or something like that. Mostly it's delivering slabs of stuff that goes in the knowledge box. I think we do not think about skills development systematically across provision. There might be pockets of it distributed randomly in certain modules and in certain sessions of those modules, but I do not remember really having sat down with any colleagues or having witnessed that process as a third party or as an external examiner or validator ever, neither in the past nor now. So I have never seen anybody deliver a joined-up coherent skills development across a whole course. They might pretend to, and do it in dribs and drabs.

Shall we increase the focus of teaching transferable skills rather than focusing mainly on knowledge?

There was a consensus that skills-related teaching is less important for a research-intensive university compared to a university that solely focuses on teaching or further education. One lecturer pointed out, for example, that at a different research-intensive university higher up in the league tables *'in the modules themselves, if anything, there is less focus on skills but I think the level of students in general is higher.'* One lecturer added that *'We do have clubs and societies that [students] can join if they wanted to.'* Another lecturer questioned if, by skills, I wanted to compensate broader issues: *'It sounds to me like "let's correct the societal defects and then everything is good"'* and then later on in the discussion, *'You seem to be coming in from a*

parental mode. Others might not find it important, but you know it better so students have to do it.'

One lecturer suggested combining knowledge and skills: *'There is the disentangling of knowledge and skills. Perhaps it's possible to teach knowledge through skills. I think we tend to default to a list of indicative content and that inevitably is knowledge-driven as indicative content is framed through knowledge. We tend to want to cover things and perhaps student expectation drives that as well. Not sure it prepares students to the rapidly changing world that we are reading about. But if you threw out the knowledge you lose claim to the cognitive area that you are delivering. So it's a question of the balance between the two.'*

Several lecturers agreed and stated that they already balance the two. They acknowledged that *'we should be clearer in the communication to students in how skills are taught and how they increase employability.'* Another lecturer explained that *'We also have to be clearer about how knowledge and skills develop through the curricula. I think at the moment students see each module as an isolated island because that's how we teach it. They learn a bit in one module and have regurgitated it for the assessment and forget about it. We have to collaborate better, understand each other's syllabi more and align our curricula. Probably when the curriculum was designed first, there was some cohesion there but it has changed kind of periodically and different people teach it.'*

If any, what transferable skills should we teach more and when?

Throughout the discussion, any attempts by some lecturers to propose transferable skills that could be taught were interrupted by other colleagues; for example, *'What about a communication skills module?' – 'These are meant to be part of every module' – 'What about more numerical modules?' – 'We have to think about admissions. I think a lot of our students look at the curriculum and choose BS because there is so little maths.' – 'But they don't have to calculate the numbers, they could just interpret the data.'*

A lecturer elaborated further on the lack of numerical and analytical skills:

It's a cultural thing. It's acceptable in the UK to be innumerate. You can make jokes about being innumerate but nobody would make a joke about being illiterate. At open days, I always thought it was a powerful marketing tool to tell prospective students that I am innumerate to not scare them off. Often, they ask those sorts of questions at open days and I can say with confidence "don't worry." But I always feel slightly guilty doing it because I am aware that in business you can't run from figures. It just doesn't feel right if a graduate says to the employer, "Sorry mate, I do not do numbers." So you do not do anybody any favours. I probably have a reasonable overview of other places as I go around a lot as external examiner, and I think it is generally undertaught in the sector and in particular at BS where in some courses you cannot find a trace element of it. I have just looked at another place, X, and there it is also under-loved. It could be the general anti-numeracy culture that we get in Britain which means that the demand by home students to do numeracy is low.

The discussion on 'when' skills should be taught had a clear consensus: 'At the beginning of the provision' and 'Yes, the first term is so important.'

The discussion then led to a specific module, 'Introduction to Business and Management', a core module in the first term of the first year. All participants seemed to agree with one lecturer who stated that 'Introduction to Business and Management is currently too easy. It kind of doesn't challenge students enough.' One lecturer pointed out the risk linked to starting with skills in term 1: 'One of the issues is that when we finished with teaching skills as part of the induction the students found the rest of the course an anti-climax because after active weeks they had to sit down relatively passively and listen to knowledge transfer. Skills training used to go down a storm with the students. But they were study skills, not skills to prepare students for the workplace. So not necessarily transferable and portable skills. But also, soft skills and social skills because these people came together from different backgrounds and it only ever got to level 4.' This was followed by a brief discussion on

what exactly should be more challenging in the ‘Introduction to Business and Management’ module, where an agreement could not be reached. The discussion led back to how analytical and numerical skills could possibly negatively affect student recruitment and student satisfaction.

3.4.2.2. *Teaching Confidence*

Do female students seem to have less confidence?

There was disagreement between participating lecturers whether female students have less confidence. There were those who disagreed with female students having less confidence.

Lecturer (male, British): *‘I don’t think female students really have less confidence, to be honest. All the stats show that they outperform guys so if they say they have a lack of confidence it is not holding them back. God help us when they start feeling confident. They are going to take over the world (laughter). The biggest under-attaining group are now white male students from a working-class background. So maybe we should switch our resources in terms of social justice to them.’*

Lecturer (female, British): *‘We had two competitions at the end of this term and the winning teams of both of our competitions were all-women teams. They didn’t lack confidence. Their presentations were really good.’*

Lecturer (male, Chinese) *‘I remember in the staff-student liaisons meetings I find more and more female Chinese students that are brave to raise issues and are more open than male Chinese right now.’*

The other participating lecturers agreed that women have less confidence, e.g. *‘I do think women generally have less confidence’* (male, German). And yes *‘Relatively more women have less confidence than the majority of men.’* One lecturer (also male, German) added *‘biological and hormonal differences explain different attitudes to risk-taking and confidence.’*

Shall we boost female students' confidence?

None of the lecturers thought female students' confidence should be boosted; faculty gave three distinct reasons for this: (1) not in the students' interest, (2) not possible, and (3) not necessary.

For the first reason 'not in the students' interest', one lecturer (female, Ghana) mentioned the cultural context *'coming from an African society, men are always out there and women have to follow. Even if you are confident. You are not allowed to present that confident front. So, when Chinese students go back to China will they be allowed to be who they are? Probably not.'* A lecturer (male, American) broadened the idea by saying *'women do not initiate negotiations as often as men do because when they do initiate negotiations they get punished for it, not just by men but also by other women. Men and women don't like it when women ask for more. So it's not that women are not totally irrational by not initiating negotiations, it's there are negative consequences. You have to address the underlying issue there.'* A male lecturer from China agreed: *'If you think about Hillary Clinton and Donald Trump – both were bullshitters but Donald Trump won. So, society has a different perception of acceptability of bullshitting, with Hillary Clinton being more criticised for it even though both were equally bad.'* When a male lecturer commented that *'Not every male is faking it'* an immediate response from a female lecturer (Ghana) was *'Perhaps it's the majority.'*

A lecturer (male, German) questioned whether we really knew if women wanted to be more confident, stating that *'there is interesting literature of women in competition. For example, Chinese women might tend to want to be the same as the group and not stand out, so while we see students as individuals, they see themselves as embedded in friendship networks or with peers. So, we don't see the dynamics behind the groups.'* A lecturer (female, British) added *'I think a lack of confidence is quite an important thing to have. I am quite happy to often feel, "Oh my god, I am not sure that I know."'*

And I don't want to be different to that. I don't want to be a bullshitter. I think it's fine to recognise that you don't know everything.'

To illustrate the point that 'it's not possible' to teach students' confidence' I would like to quote one lecturer (male, German) who stated that *'teaching students how to do impression management doesn't work. They will always be worse than those who do it naturally. No matter how well you teach somebody it may come across as fake and actually be counterproductive in terms of them getting the jobs. Because in effect you are pretending to be somebody you are not. People see through these kinds of things. There is a danger in promoting something that is perhaps counterproductive.'*

A different angle to the point 'it's not possible' is that 'it's not possible in the current BS set-up' (lecturer, male, British): *'You need to get into coaching but then you would need fewer students than 40 in the class. I think we cannot do much. I think there are so many other things going on, especially with international students. They tend to suck the oxygen out of the room, so in that international context the whole gender thing gets swamped a bit.'* The notion of 'it's not possible in the current BS set-up' was confirmed by a different lecturer (male, German) who said *'It's not just what we would win, but also what we would lose. And what could lecturers gain by making those changes except more emails and more work. We have to understand what students are responsible for and what lecturers are responsible for. Lecturers and professors consider themselves responsible for their own destiny by working hard and by taking initiatives themselves. They never relied on others, so why should they help others. They don't want to save others.'*

Based on the comments of faculty as part of this research step, the third point 'it's not necessary to boost specifically female students' confidence' is divided further into three sub-points. The first sub-point to explain 'it's not necessary' is that it is women who have the right level of confidence while men are being overconfident. This was expressed by a male lecturer (American) who said *'What about if men are delusional about their*

knowledge and how qualified they are. I think we want students to have a realistic understanding of their current strengths and weaknesses and then help all the students to increase their skills. So, we need to convince male students that they are not as good as they think they are and to motivate to know more of their strengths and weaknesses and to give them opportunities to improve that, like group presentations, like public speaking. I had for my business degree [in the US] multiple, we had full modules on public speaking and like consulting. And we did projects where we had to present our results in front of businesses. And we had tons of presentations, like you were always presenting in front of the class and being assessed on it. It's like one thing verbal communication and presentation skills which we could actually improve.'

The second sub-point for the reason 'it's not necessary' is linked to lecturers voicing that it is society's responsibility, not lecturers' responsibility, to change this; for example, a lecturer (female British) said '*We all know that women are not good in negotiating their salary and say "I'm worth more than that." I feel it's up to the employer to manage this and to decide what I am worth. And if a man negotiated more, then it's up to the employer to say that they are giving you a salary rise too. So as an employee I shouldn't be doing this. A lot of this is not about women lacking confidence but it's about employers not being responsible for the decisions they make.'*

The third sub-point of 'it's not necessary' is that the concept of gender binarism is not appropriate. One lecturer (male, German) pointed out that '*we erroneously treat gender as a theoretical construct by collapsing it saying 'men are this' and 'women are that' and ironically we are doing this in the area of diversity. There is so much intra-gender diversity that we are just simply ignoring when we are collapsing. The question for this research is then do we focus on the wider group or do we single out a few students? For example, this group of female students who won the competition, how do we boost that more or do we want to focus on the average overall. In other words, do we want to single out certain students or do we want to keep the*

inclusion? Research in other areas has shown that men have a distribution that is skewed towards the top and bottom, and for women there seems to be a higher concentration towards the middle.’ It is important to note that both from the student and from the faculty side, the skewed distribution was raised by a man. In the case of faculty input, it is interesting that in two consecutive sentences, the same lecturer first criticised gender binary thinking and then referred to research which is based on gender being binary.

If we wanted to boost confidence generally what could we do?

One lecturer (female, Ghana) suggested better induction programmes: *‘For my studies, I had an excellent orientation day and met key lecturers and it made life a bit easier. It was easier to not see them as them and us and afterwards go and see them for the studies with questions or drop them an email. The problem is that at BS it’s the strong students that make contact. The weak students don’t make contact and as lecturers we are therefore unable to help students early enough. So, a social programme in the beginning might help both lecturers and the students.’*

One lecturer (male, German) suggested going bowling: *‘Yesterday, for example, I went with my students bowling for end of term activity. It relates nicely to your statement of context. We have quite a number of female Chinese students who do not speak up in the classroom at all. And at bowling, they were not at all the same like in the classroom. So, they have their confidence. They tease everybody they kind of run the show. In the classroom, we can do whatever we like and they sit there and do not participate. If I had seen them in this other social context, it would have been far easier for me to tease out more participation in the classroom. My assumption was they just never want to speak. And they were then jumping up and down in the bowling centre and speaking in English was no problem for them.’*

A different lecturer (female, British) suggested: *‘Having more continuity across our curricula. I think it then builds students’ confidence gradually in their knowledge and skills and their understanding of both.’*

Two male lecturers (American and German) suggested teaching more negotiation skills classes, and these earlier on in the curriculum *'In negotiation you have the training to lie to make a good deal. And teaching them when lying is acceptable and when it is not acceptable is important. How you are able to misrepresent the alternatives to make them stronger than they are, that is an acceptable part of negotiating.'*

One lecturer (male, German) *'had very good experience with tasking students to learn small theory, just one concept, management by objectives for instance and then once the student was the expert, in pairs they had to explain the concept on a 1:1 basis to another student. And then the other student explained his/her concept. This could then lead up later in the term to a group presentation. This was a group of predominantly Chinese male and female students, and I have seen them very active in expressing their views not in front of the big group but in front of one person, and not needing to explain complicated research topics but just one simple concept.'*

Two lecturers (male, German and female, British) suggested giving worse grades in the first years. They rationalised *'in the first term the students calibrate their learning so if they can get away with things in year 1.'* One lecturer (f) went on to say *'We don't really build resilience. In the States, I could make students first fail, and then give other things to learn and do and they would then pass.'* While the other lecturer (m) stated that *'confidence comes out of failure and then learning that you can pull yourself up and that you get out of that.'* According to him *'we are cushioning to some extent students' experiences and removing some of the potential to potentially feel that they are not succeeding about something. So ironically, we are trying to boost students' confidence by not putting them in difficult situations but it's actually these difficult situations and getting out on the other side where we boost students' confidence.'* Both lecturers recognised though that *'It's how our systems are structured that really deters us from allowing failures'* and *'that it might make somebody totally unconfident.'* One male lecturer hypothesised *'I could sense male students saying I gambled and it's not*

working. But female students might get disillusioned, crying in my office, asking me exactly what steps they need to take to make things better.'

3.4.2.3. Technology Enhanced Learning

At the end of the focus group interview, I shared my findings that students do not seem to be that appreciative of technology-enhanced learning. Most colleagues immediately expressed their agreements with the findings, with comments ranging from '*We actually do not have good technology available to us that works reliably. It's like technology-inhibited learning*'; '*Students prefer to have face-to-face contact time*' and '*as publishers lose their business with books and so forth, they expand their offerings into online learning, which created an artificial need to make us focus on technology-enhanced learning.*' Only one colleague disagreed: '*I think it's important to use it as a tool and it can be quite powerful. If I ask students to read something, I then do a quiz to check their understanding. I think students like us using online tests. Students want to demonstrate their knowledge. So, there is a role for technology-enhanced learning. E-books are now interesting as they might replace some of what the lecturer organises.*'

3.4.3. Four short surveys – moving away from faculty back to the initial study participants: workers and students

As part of this section, I conducted four short surveys. First, I surveyed workers' perceptions of the link between confidence and career prospects. Second, I surveyed students on their interest, or lack of interest, in activities that boost confidence. The third survey focused on students' prioritisation between knowledge transfer and skills, before evaluating in the fourth survey students' viewpoints on four distinct activities meant to increase confidence, verbal communication skills, and employability skills.

3.4.3.1. Link between self-confidence and career prospects (qual) – Workers' perceptions: findings on the link between low level of confidence and career prospects (3a)

As part of this survey, all of the 17 non-HE workers saw a connection between self-confidence and career progression. Some mentioned the initial

recruitment phase, e.g. *'Yes, absolutely. Women are going to apply for jobs that are much lower level than the jobs they could perform with their qualifications and experience. Women tend to underestimate their value and find it difficult to sell themselves. For example, women will apply to a lower qualification job like assistant accountant at £25k instead of management accountant at £40k even if they are qualified to be management accountant'* and, *'Confidence is so important for assessment centres.'*

Others mentioned that level of confidence affects the drive for applying for promotion, using descriptions such as 'bull' and 'hunter' for men and 'wallflowers' for women: *'Yes there is a relationship between low confidence and women's careers and the gender pay gap. In my role as a manager for [a multinational firm] I found men were more bullish than women in career development discussions, e.g. male would say "My aspiration is to be CEO in three years", while female colleagues would aspire for something similar in 15 years – actually it was quite rare for a female to have such high aspirations and more common for a male colleague',* and *'Perhaps it's linked to men being hunters on their own while women were historically part of a group – and constantly seeking group approval?'* with a further participant saying *'Yes, of course, there is a relationship between low confidence and women's careers and the gender pay gap. If you have lower confidence, you're not going to ask for a pay rise... being a wallflower will not help you progress in your career.'*

A further respondent linked the lack of confidence not just to company internal promotion processes but also to changing companies. *'Women do not push themselves forward for promotion and wage increase because they worry about negative feedback. For the same reason they don't change jobs as often. For most people, career and salary progression comes from moving employers.'*

A lack of confidence is also reflected in everyday behaviour and results in women tending *'to put themselves forward as 'Doers' rather than 'Thinkers*

and Strategic Planners'', combined with possibly *'feeling frequently like an imposter'* or suffering from an *'invisibility syndrome'* expressed by a female participant: *'I like to be not noticed (sic)'*.

Even the link to feminism was seen by one participant as an expression of lack of confidence *'I believe some friends of mine identify with feminist women's agendas and positive discrimination. They use it as a crutch because they don't feel equal and are not confident enough to push themselves forward.'* One female participant used the opportunity to provide her thoughts on other factors that affects the careers of women: *'Yes, there is a massive correlation. However, the issue is even broader at societal level. If you consider society, men always have the full-time jobs. Women are still in jobs that are unpaid by society so it's seen as unworthy, for example housework is still done mainly by women. And this is also reflected in their pensions.'* A final thought by one of the participants: *'A lack of self-confidence applies to females and also to a lesser extent to males. If there was (sic) a magic pill to boost confidence it should be given to all who lack confidence.'*

3.4.3.2. 'Learning' Confidence (QUANT) – Third Q-methodology study: findings on students' perceptions (3b)

The Q-methodology study in Phase 3 built on the viewpoints raised by students around a lack of confidence expressed in Phases 1 and 2 and the faculty interviews at the start of Phase 3 (3a). I wanted to check whether students felt that confidence should actually be *'taught'* and promulgated at university and if yes, should it be part of compulsory classroom teaching, optional in voluntary societies, or part of academic advising/coaching. Students were also asked about their definition of confidence. This confirmed the findings outlined from the student focus group conversations in Phase 2, namely that international students frequently linked confidence with courage, such as:

- *'Dare to show our true colours, dare to take responsibilities.'*

- *'Be brave to express yourself.'*
- *'When one can easily confront other [sic] and interact without any barrier within.'*
- *'Believe in yourself that you can do anything, keep going to face some new challenge.'*

Of the 27 participants of this study, two-thirds were female (n=18) and one-third were male (n=9). For the Q-methodology analysis, 15 Q-sorts were mapped onto three factors. Out of 12 statements, there were five statements with consensus. Two statements had neither consensus nor distinguishing features, and for five statements the three extracted factors showed distinguishing features. Based on these distinguishing features, independent of gender, ethnicity or nationality, the three factors can be described as follows:

- Factor 1: **'Interested in personal support'**: these students are interested in having more individual time with academic advisors and are not interested in additional public speaking in class. Factor 1 has an eigenvalue of 5 and explains 23% of the study variance. Six participants are significantly associated with this factor. These six students represent 22% of participants. This is a lower percentage than the loading on the first factor in Phase 1 (viewpoints on factors influencing academic and employment outcomes) and also the loading on the first factor for each of the three segments analysed in Phase 2 (viewpoints on barriers only).
- Factor 2: **'Interested in more public speaking'**: these students are interested in more public speaking in class and are also interested in voluntary societies that focus on public speaking. Factor 2 has an eigenvalue of 4.3 and explains 19% of the study variance. Five participants are significantly associated with this factor.
- Factor 3: **'Interested in more informative in-class feedback'**: these students are interested in receiving more feedback from lecturers and tutors during lesson time and are not interested in additional career or

employment advice outside the classroom. Factor 3 has an eigenvalue of 4.2 and explains 19% of the study variance. Four participants are significantly associated with this factor.

The statement which students across gender and nationalities ranked, on average, highest was ‘In workshops, students should be out of their comfort zone and learn how to chair and participate in meetings and learn to value differences of opinion (including criticism).’ The second highest ranked statement by averages was ‘Offer optional workshops on a wide range of skills, e.g. analytical skills, creating a start-up, etc. (skills of doing a job rather than getting a job)’. The third most important statement for female students was ‘Lecturers should integrate more public speaking/communication skills in class for all’, while for male participants, the third most important statement was, ‘Have the option of monthly (rather than termly) individual support from an Academic Advisor/Tutor so that he/she really gets to know the student and gives tailored advice, listens, and provides encouragement’.

Students were clearly in support of these skills being covered in the curriculum. Students adamantly rejected the statement ‘Nothing. Students have to take their own initiatives. The less a university does in trying to nurture/protect students, the better’. Students also resolutely rejected the statement, ‘Nothing, it is outside university where confidence has to be built (e.g. family, primary and secondary schools)’.

3.4.3.3. Knowledge versus Skills (quant) – Findings on students’ perceptions: Knowledge, Skills, Experience, Being, and Action (3c)

As part of the third small-scale study, students were asked to rank, by importance for their studies, knowledge, skills, experience, being, and action. These five areas were a combination of the findings of Phases 1 and 2, faculty interviews at the start of Phase 3, and literature, in particular Barnett, Parry and Coate (2001).

A third of the 19 students who participated in this research step considered ‘**knowledge**’ as the most important element of the curriculum out of the five

elements provided in the survey. I had defined 'knowledge' as learning 'factual information on business and management related topics'. As explained in the methodology chapter, students had been asked to rank factors, with the most important being ranked as '1' and the least important as '5'. Using the arithmetic mean average, 'knowledge' has the lowest score of 2.37. The geometric mean was also the lowest at 1.99.

'**Skills**' was prioritised as second most important element in the curriculum. For this research, 'skills' were defined as learning 'transferable skills, e.g. how to effectively demonstrate knowledge, or present oneself (including verbal communication skills and exercises to build confidence)'. Using the arithmetic mean average, 'skills' has the second lowest score of 2.42. The geometric mean was also the second lowest at 2.24.

'**Experience**', defined as 'study visit, company visits, internship, study abroad etc.', is perceived as the third most important element (arithmetic mean = 2.68, geometric mean = 2.28, median = 3). An additional comment from one of the students on the study visit abroad which took place at the end of the module: *'As a result of this trip I feel more confident and empowered to expand my knowledge on different aspects, travel around the world, and meet new people with different nationalities.'*

'**Reflection** on self, critical thinking, morality, being on a day-by-day basis (character building)' was ranked as the fourth highest, and at the same time the second lowest out of the five areas (arithmetic mean = 3.11, geometric mean = 2.77, median = 3).

'**Action**', the fifth remaining area, was defined as 'practice skills, e.g. writing essays or doing presentations'. When considering the average mean, this area is substantially below others (arithmetic mean = 4.42, geometric mean = 4.31). The low ranking can be explained by students' dislike of doing group presentations mentioned already in earlier research phases, in particular in Phase 1 when comparing students with workers.

Students were also asked qualitative free-format questions of whether their degree programme was pitched at the right level and about their thoughts on doing individual presentations in particular. In response to the latter, five students stated that they actually appreciate practising individual presentations and see them as a way to *'improve our abilities'* (female, mainland China) and to *'make you more confident'* (female, British).

Three students, all male, do not enjoy doing presentations because they require preparation, are *'repetitive'*, and listening to others is *'boring'*, with the degree programme overall also being perceived as boring and repetitive. Seven students found presentations *'stressful and putting students under pressure'* or *'so stressful, and they give me anxiety.'* All seven students who mentioned the words stress or stressful were female students of different nationalities. Only one student of those who mentioned stress in the context of presentations thought the degree programme overall was also stressful. Overall, the majority of students surveyed thought that their studies were pitched at the right level. Finally, a female student from mainland China commented that presentations are *'very difficult for students who don't have enough confidence in speaking.'* It would be interesting in future research to get confirmation on whether this point is possibly linked to being judged and the risk of shame and losing face.

3.4.3.4. Verbal communication skills to boost confidence (quant) - Findings on students' perceptions of verbal communication skills exercises in view of student satisfaction, employability, and level of confidence (3d)

As part of the fourth and last small-scale study, students were asked to evaluate the effectiveness of four distinct verbal communication activities. Findings suggest that students differentiate between activities they enjoy and activities they find useful for future employment and for building confidence.

Debates were seen, on average, as the most enjoyable activity. The students selected the following three topics for the debates: Is it acceptable for a manager to not employ a smoker based on assumptions on smoking patterns

made during the recruitment interview? Should drugs be legalised? And is the gender pay gap at BS (and other organisations) justified?

Individual discussions with mentors, which were mirrored on the tutor system in Cambridge and Oxford, were seen as the second most enjoyable activity. These individual discussions were, surprisingly, perceived as least important for future employment and also least important for building confidence.

An assessed 3-minute pitch in front of a panel of four assessors and an unassessed 3-minute presentation in front of the entire seminar group were perceived joint least enjoyable. In return, the assessed 3-minute pitch was perceived as the most useful exercise for future employment, and the unassessed 3-minute presentation in front of the workshop group was perceived as the most effective of the four for boosting confidence.

A final comment on the assessed 3-minute pitch. While most students appeared very nervous and recited their prepared pitch rather artificially, all four assessors were unanimous in identifying the most accomplished pitch as it was presented very naturally, as if not prepared at all. Speaking to the student (female, international) after the assessment, the student confirmed that she worked very hard and practised the pitch purposefully so often until she knew that she did not need to know it anymore by heart but had assimilated it. From an assessor perspective, it seemed like an affirmation of one of the participant's definitions of confidence in Phase 2: '*Confidence is about being at ease in different environments*'.

3.4.4. Phase 3 summary

Findings suggest that faculty believes that knowledge transfer has to be dominant in HE. There was no clear consensus amongst faculty members who were interviewed whether the balance between knowledge and transferable skills has changed in the last decade and what, if any, transferable skills should be taught more. There was also no consensus by faculty members whether they thought that female students, compared to male students, lack confidence. There was consensus though that, according

to faculty, female students do not require additional boosting of confidence as this could be classified as unfair treatment. When asked what could be done to boost all students' confidence, every participating faculty member had their own 'minor' ideas, without any interest in substantially changing their approach to students' education.

Faculty interviews and a small-scale survey of workers who affirmed the link between self-confidence and career progression, frequently referring to job application and promotion processes, provided material for the third Q-methodology study. In the third Q-methodology study students were asked whether they thought that confidence should actually be 'taught' and boosted at university and, if yes, if it should be part of compulsory classroom teaching, optional in voluntary societies or part of academic advising/coaching. There was a clear student consensus that universities should boost students' confidence. There were three distinct viewpoints for possible actions. First, there are students who are interested in having more individual time with academic advisors and are definitely not interested in additional public speaking in class. Then, there are students who are interested in more public speaking in class and are also interested in voluntary societies that focus on public speaking. The third group of students is interested in receiving more feedback from lecturers and tutors in class with an aim to produce work of enhanced quality.

The research was rounded off by two small-scale student-centred surveys. First, undergraduate students were asked to rank five curriculum areas by their perception of importance. The outcome in order of importance was: knowledge, skills, experience, being, and action. Student comments suggest that the majority of male students perceive presentations and listening to others present as boring and repetitive, and tend to consider their studies overall also as slightly boring and repetitive; while the majority of female students perceive doing presentations as particularly stressful with the studies overall not too stressful. Second, undergraduate students were asked about

their experience of four distinct classroom activities to improve verbal communication skills and to boost confidence.

From the findings, it was clear that students differentiated between activities that they find enjoyable and those that they find helpful for their future career or to boost confidence, with the latter two closely linked.

From the activities that were analysed, debates were seen as the most enjoyable activity. An assessed 3-minute pitch was perceived as the most useful exercise for future employment, and an unassessed 3-minute presentation in front of the workshop group was perceived as the most effective for boosting confidence.

3.5. Summary of research findings across all three phases

Semi-structured questionnaires completed by a diverse group of BS finalists allowed for developing an entirely student-informed Q-methodology survey that was completed by a sample of finalists from BS, non-BS finalists from seven further universities, non-finalist students from BS, and workers. Results showed that compared to workers, there was a clear student view that focuses on short-term planning and self-regulated learning. The majority of students seem to focus on degree outcome rather than considering future employment outcome. The latter seemed irrelevant to most students. Furthermore, students appeared to consider being confident as less important than did workers. Yet, both male and female participants in the initial semi-structured survey had raised issues around confidence in female students.

Phase 2 built on Phase 1 with an aim to clarify some of the open points from Phase 1 and to contrast students' viewpoints from different demographics. Findings confirmed earlier results that many students deprioritise networking opportunities and instead focus on short-term time-management issues.

In addition, findings based on Q-methodology, regression and effect sizes indicate some statistically significant differences by gender and/or the intersection nationality/ethnicity. More than 60% of female participants from

China (Han ethnicity from mainland China) and Britain (white) perceive a lack of confidence as their main barrier. This issue seems to be exacerbated by an additional perception of weak analytical skills (female students from mainland China) or poor verbal communication skills (female White British students).

Based on qualitative findings, some of the consequences of a lack of confidence might be that female students work much harder to compensate, and do achieve higher grades; however, by doing so, they do not take advantage of more long-term networking and career opportunities and also feel more stressed, which in turn further decreases self-confidence. While students and the non-HE workers are interested in tackling the confidence gap and the inclusion of skills generally, faculty do not seem open to change for various reasons. The consequences of this are discussed in the following chapters.

Finally, across the three research phases, the five research questions have been addressed as evidenced by the following very brief overview of the responses to the research questions:

1. *What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?* First and foremost: ‘Time Management and Planning’ with a focus on academic success (rather than employment success).
2. *Do the students’ viewpoints listed in (1) differ compared to other students, faculty, and workers as their future employers/colleagues?* When considering research question 1, i.e. the research of Phase 1, the difference between students of various backgrounds is smaller than between students and workers. The majority of students (60%) mapped on the first Q-methodology factor while no worker mapped onto the first factor.

3. *Do the students' viewpoints listed in (1) differ by demographic attributes, i.e. gender, ethnicity, and nationality, and their intersection?* Yes, particularly with gender permeating through when researching barriers in Phase 2.
4. *'So what? Now what?' From the findings of (1), (2), and (3) what are the recommendations for teaching in HE?* It is recommended to consider the impact on students' confidence and to emphasise more transferable skills generally, and verbal communication skills in particular.
5. *Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?* Yes, the mixture of Q and R worked well as information is complementary.

Chapter 4. Discussion and Recommendations

4.1. Introduction and chapter outline

In this chapter, I will use the technique of the ‘What?’ model, which follows on from the work of Borton (1970), Driscoll (1994 cited in Driscoll and Teh, 2001) and Rolfe (2014). Stage 1 of the model is ‘What?’ where I discuss the key findings from the research. This is followed by Stage 2, ‘So what?’ where I aim to make sense of the implications of the findings. In Stage 3, ‘Now what?’ recommendations are outlined.

This chapter is split into three sections, with the first two sections covering each a subset of the research questions. In the first section, I will discuss the findings in response to research question 1, i.e. the participants’ perceptions of factors impacting academic and employment outcomes, and question 5 on Q-methodology. I will also touch on the first part of question 2, the inter-student comparison across different universities, different degrees, and different year groups, as well as the comparison with workers, as their future employers or colleagues.

The second section of this chapter focuses on barriers. It explores findings at the intersection of gender, ethnicity, and nationality (question 3). It also compares students’ perceptions of faculty (remaining elements of question 2). Based on the discussion, I will make recommendations in response to the fourth research question.

In the third section I will revert back to the wider context of this thesis by asking three questions:

1. Future-proofing education: Are British universities failing GenZ students in the preparation for the workplace?
2. Inequalities of perceptions and perceptions of inequalities: Are British business schools failing female students in particular?

3. The uncomfortable ‘truth’ about gender: Why does it seem acceptable to focus on certain student segments and not on others?

4.2. Discussion Part 1: Adapted Q-methodology and factors for academic success

This discussion centres on students’ perceptions of enablers and barriers impacting academic and employment outcomes and whether the application of an adapted Q-methodology was appropriate. It does so by showing results that validate existing literature and, on the other hand, results that could not have been illustrated without the existing methodology.

The research questions that are discussed are:

1. What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?
2. Do the students’ viewpoints listed in (1) differ compared to other students and workers as their future employers/colleagues?
5. Should the adapted mixed-methods Q-methodology approach be deployed for future research and if yes, how?

4.2.1. What?

Constructs can be operationalised at different levels of specificity and on a hierarchical spectrum (de Vellis, 1991). When analysing students’ perceptions of factors influencing academic attainment and employment outcomes, there are two different levels of ‘factors’. The first level represents a wide spectrum of enablers and barriers to academic attainment and employment outcomes which students voiced and ranked. The second level of factors encompasses demographics that can be considered as moderators affecting the first level of factors, i.e. gender, ethnicity, nationality and their intersection. Students provided these demographics at the same time as raising and ranking the first level of factors.

Overall, I focus more on the second level of factors to understand if there is any difference in perceptions that can explain the gaps that can be noted for academic achievement and future employment-related pay. However, it is the first level of factors that determined the topics that were raised. For example, as part of the survey to build the concourse, students only raised assessments as part of group work. This then means that the discussions were not centred around assessments, even though assessments are an integral part of education and, as outlined in the literature review, have wide-ranging impact (Crawford and Wang, 2014; Hiles, 2016; Richardson, 2014; Sutherland et al. 2018; Woodfield, Earl-Novell and Solomon, 2005).

As outlined in the methodology chapter, this thesis is underpinned by critical constructivism that considers the socially constructed reasons which influence students' behaviour as an explanation of observed differences. I believe that these observed differences cannot be objective facts but are socially constructed perceptions, with the perceptions themselves contributing to producing the differences. In other words, I explored how the perceptions are constructed and considered how the student attainment gap and the reverse pay gap are produced by understanding the demographic differences in these perceptions.

Findings related to this second, deeper, level of factors are discussed in the second part of this chapter. Here, I am only focusing on the initial first level, i.e. the wide array of enablers and barriers to academic attainment and employment outcomes. I do this by focusing on three areas: (1) planning, time management and organisational skills; (2) technology in the classroom, and (3) areas where students' responses are different either compared to the literature or to the workforce.

4.2.1.1. Planning, time management and organisational skills

The response to the question 'What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?' is: planning, time management and organisational

skills. This finding is in line with the current literature reviewing students' focus while at university, e.g. Broadbent and Poon (2015) and Sutherland et al. (2018). As outlined in the literature review, Sutherland et al. (2018) linked the importance of 'organisation' for student satisfaction with the efforts of faculty rather than administrators. The findings of this study suggest that students see the work of faculty as providing themselves, i.e. the students, a framework to be organised with their own learning in preparation for achieving good results. In other words, students want to have agency and see their own organisational skills as beneficial. They therefore seem to appreciate faculty, whom they see as their point of contact, to allow them to plan effectively and to be organised.

Was it possible to predict that students from GenZ were in line with the previous generation of students? Possibly, as the literature suggests, actual generational differences are smaller than perceived generational differences (Lester et al., 2012). With GenZ confirming from the initial step of the research that planning, time management and organisational skills were perceived, on average, to be the most important success factors independent of which university they attended, I felt that it endorsed the chosen Q-methodology.

4.2.1.2. Technology in the classroom

One area that was surprisingly ranked as unimportant was the role of technology in the classroom. This is surprising considering how technology has transformed society and that we are living at the start of the fourth industrial revolution, with increased importance of Internet of Things (IoT), Artificial Intelligence (AI) and Robots and Bots (Bonciu, 2017). Faculty at BS made three suggestions to explain the finding. The first suggestion concerned technology, and the issue is explained as follows: *That's the problem with the centre. The centre took away the Teaching Support Unit and installed Technology Enhanced Learning (TEL) with many learning technologists, without us having actually good technology available to us that works reliably. It's like Technology Inhibited Learning.* The second

suggestion concerned publishers and is explained as follows: *'[A]s the publishers lose their business with books and so forth, they expand their offerings into online learning... An artificial need has been created to make us focus on TEL.'* The third suggestion concerned the students themselves: *'[Students] do not engage with technology at home. They do not open up software. They prefer to be in a face-to-face environment where they see their friends around them.'* Confirmed by a further colleague: *'[Yes], students like to have contact time.'*

Could the real issue behind the low ranking of technology in the classroom be that faculty, who grew up without such technology, are reluctant to change and adopt the new technologies available to them? One university that seems to be at the forefront of TEL is Politecnico Milan, which recently collaborated with Microsoft on developing Flexa, a digital mentor (Flexa, 2018).

Currently, Flexa seems to be more an intelligent digital personal assistant rather than a digital mentor. Discussing Flexa in depth is outside the scope of this project. However, it is an area of suggested future research which I refer to as part of the concluding chapter. After all, as one lecturer pointed out, *'it's important to use [technology enhanced learning] as a tool and it can be quite powerful... We should think about how we can use technology better to enhance the learning...'*

4.2.1.3. Areas of difference compared to the literature and the workforce

As outlined in the findings chapter, when comparing student statements with those of the workers, the specific areas which students considered as substantially more important than workers were attendance, ambition and analytical skills. Areas which workers rated more relevant for their success than students were: team and group work, having excellent verbal communication, having luck, and being confident. Confidence and verbal communications skills are covered in the second part of this discussion and the recommendation chapter. Here, I cover the other areas of difference to

the workforce and to the literature, starting with the combination of ambition and luck, and resilience.

Ambition, luck and resilience

Having ambition versus just hoping for luck are possibly considered by students as on the same spectrum but at different ends. As part of the focus group discussion, a student explained that *'People want to think of themselves as having achieved things through merit and hard work.'* A different student added, *'Students only think about how hard they are working right now, and what they can do now to help in the future – it's not possible to anticipate luck in the future... Perhaps when you look back on your life later on you are more likely to admit to luck.'* The perception of hindsight is in line with what a worker said: *'My perception on the role of luck has evolved over time: I used to think it was less important.'*

Similar to 'luck', 'resilience' can perhaps also only be understood with hindsight. Resilience, perseverance, and tenacity were mentioned by workers rather than students in the additional free-format text boxes provided as part of the survey. Linked to resilience are factors that are mentioned in the literature but where students seemed unaware of their importance for academic achievement; for example, studying spiritually-oriented material and mental strength training (Barnes and Egget, 2000), the right amount of sleep (Lemma, 2014), 'control of life', and mental toughness (St Clair-Thompson et al., 2014; Stock, Lynam and Cachia, 2018). As outlined in the literature review, elements of mental toughness include interpersonal confidence and confidence in abilities (St Clair-Thompson et al., 2014) and, as such, some parts are covered in the confidence section later in this chapter. The aim of this doctorate is not to study the psychology behind these concepts. Instead, I suggest linking these concepts to the idea of developing a sophisticated digital mentor for students that also integrates mental strength training, in line with non-HE software in the area of mindfulness, such as Headspace (n.d.). I also like to refer to the point made earlier on planning and

organisation: the majority of students appear to want to think of themselves as having agency where luck does not feature.

Attendance and being analytical and logical

The difference between students and workers regarding attendance is not surprising. While not relevant to workers, class attendance has a positive role on the academic achievement of students, e.g. Cohn and Johnson (2006) and Cotton et al. (2016). To see the difference between students and workers as part of this research should be considered a confirmation of the adapted Q-methodology.

A further area which students considered to be more important than did workers was analytical skills. The quantitative analysis showed that those who consider analytical skills as important also see it as a barrier for themselves. Input by students from Asia had two direct consequences. Firstly, I gained, albeit anecdotal, cultural knowledge, e.g. study participants from China stated that there is a clear distinction between analytical and logical thinking, more than in Europe, and that men are perceived as better in both.

Secondly, international students raised the issue of a lack of analytical training and finance-related modules as part of their business degrees; I have passed this concern to the Finance Department of BS which has since strengthened the analytical and finance-related provision as part of the undergraduate business degree and I have increased the analytical element of teaching Socially Responsible Investing and Impact Investing.

Team and group work, peers, and networking

An area which workers rated more relevant to their success than students was team and group work. Baird and Parayitam (2019), for example, point out the need for universities to emphasise more group work. As outlined in the literature review, several studies have found that students achieve better grades when surrounded by higher achieving peers (Berthelon et al., 2019; Golsteyn, Non and Zölitz, 2017) even without increasing study efforts

(Golsteyn, Non and Zölitz, 2017). Moreover, the cohesion and breadth of the students' network also improve student outcomes (Berthelon et al., 2019).

Students dislike group work at university possibly for two main reasons. First, the dislike of group work might be founded in the link to assessments, e.g. *'Most students get assessed on group presentations. I don't like them.'* However, students' perception of group work linked to assessments is not the only reason: in Phase 2, I explicitly asked about group work unrelated to assessments. Still, only 15% of students agreed that unassessed group work could be an enabler, 32% of students were ambivalent, and 53% of students disagreed that even unassessed group work can be an enabler. Qualitative student feedback from home students indicated that the second reason of their dislike for group work might be partly linked to the level of English of fellow students, e.g. *'people who can't write or speak in English is most noted in group work. Massively disadvantages them and anyone who works with them.'* This relates possibly partly to native-speakerism and to othering of students commented on in the literature review in Chapter 1 (Holliday, 2006). However, it could also partly be linked to students ignoring the benefits that global networks can bring and not spending time on building networks. As Spence (2019 cited in Ross, 2019, para. 5 and 14) explains 'by the time [Australian home students] balance their part-time job and commute, it's too easy for them to spend time with people just like themselves...A big focus of [the University of Sydney's] current student experience work is on the social engineering that reduces the transaction cost of spending time with students who are different to you.' One suggestion to change the negative connotations around group work might be to relabel group work consistently as teamwork.

Could the current dislike for group work be even more defining for women than for men? Yes, possibly, because of the following three reasons. First, female White British students ranked on average *'Seeking opportunities to work with and in diverse groups'* second last enabler, just above, in last

position, *'Attending networking events with guest speakers and speaking to them individually.'*

Second, when considering that group work contributes to setting the foundation for networking as a lifelong career tool, it is indicative that when comparing the rankings for this statement between female White British students and male White British students, a medium effect size can be noted (Cohen's *d* 0.50).

Third, qualitative findings indicate that female students seem also to attend fewer networking events, partly because they are focused on revision to try to get a good mark in their next assessment, partly linked to a lack of confidence. In support of the first point, a female White British student pointed out *'[g]irls fixate on grades quite a lot. A lot of girls have openly said that they are aiming for a first and then focus on that rather than thinking about what happens immediately afterwards.'* In support of the second point, a female international student commented: *'If I'd go to [networking] events by my own self, I would be worried about it.'* This confirmed what a female home student already explained in a separate focus group *'I think this comes back to the confidence thing. I have spoken to a lot of girls who have said that networking is not really useful because they think I am not going to stand out in a crowd and I better work hard, go get a first on my degree which I can then put on my CV as part of my job application which is going to be more useful... So I think perhaps everything interlinks: The confidence, the experienced public speaking..., the being White British male, going to these networking events because you push yourself to go because you are confident. It all interlinks and then ends up propelling more men forward.'*

A final point on networking. Networking not only influences career prospects but also touches on mental wellbeing; as one worker mentioned, networking is for her *'a way to offset stress.'*

4.2.2. So what? Can attribution theory be used to explain the findings?

To analyse the findings across all 45 statements, I attempted to use attribution theory as the best fit model to understand how students explain their own behaviour to achieve academic and future career success. I developed possible student profiles using a three-stage process aligned to attribution theory developed by Weiner (2010). Each of the three stages mirrors the causal dimensions or properties of behaviour which are (1) locus of control, (2) stability, and (3) controllability. All attributions can be seen in Appendix L, with Appendix M providing further background explanations for the attributions in Appendix L and providing, for example, the count of each of the attribution categories.

For the first stage, the locus of control, there are three criteria that need to be met: (a) behaviour is observed, (b) behaviour is determined to be deliberate, and (c) behaviour is attributed to internal or external causes (Weiner, 2010). An internal locus of control is dispositional to the individual student-participant and their action, an external locus of control is seen as situational. The difference between an internal or external locus of control can be explained using the following two statements: Statement 15: *'Being in vibrant classrooms where many students participate'* is external, statement 16: *'Being an active participant in the classroom myself'* is internal. Other areas were less distinctive, and I had to interpret what students must have thought when completing the survey. The allocation between an internal or external locus of control per statement can be seen in the first column in the tables of Appendices K and L. The 45 statements are split almost equally between internal and external locus of control. Two factors, starting with *'Having ambition for (an external cause)'* are marked as external; however, they fall into the arbitrary attributions outlined in Chapter 1 (see Dickerson, 2012; and Hewstone, 1989).

For the second stage, students' behaviour to achieve a high grade and good employment can be attributed according to the stability of the causes, i.e. whether causes change over time and can be differentiated into stable or

unstable causes. The second column of Appendices K and L shows how each of the 45 statements reflects either stable or unstable causes. An illustrative example is statement 33: *‘Having excellent peer support/students helping each other independent of friendships’* is unstable, while statement 34: *‘Being intelligent. Things seem easier for me than for others’* is stable. As students were not asked the questions related to a specific task environment, it is not surprising that twice as many statements were raised during the construction of the concourse that can be classified as ‘unstable’ (e.g. effort and luck) rather than ‘stable’ (e.g. ability and task difficulty). This reflects the agentic attitude of students that has been discussed in the literature, e.g. the self-regulated learning mentioned by Broadbent and Poon (2015) and Dent and Koenka (2016), and also by qualitative comments, e.g. *‘People want to think of themselves as having achieved things through merit and hard work.’*

To reflect controllability, Weiner (2010) added a third stage to his attribution theory which differentiates between whether the behaviour is seen as controllable and related to own effort (e.g. by learning a new skill) or as uncontrollable (e.g. luck).

Attribution theory is frequently represented as a quadrant, see Figure 5.

Attribution theory	Internal locus of control	External locus of control
Stable cause of event	2 Ability	3 Task difficulty
Unstable (changeable) cause of event	1 Effort	4 Luck

Source: Adapted from Weiner (2010)

Figure 5: Attribution theory quadrant.

The third column of Appendices K and L show the attribution to each of the quadrants for the 45 statements. As explained earlier, as this survey is not situated within a task environment, and with students wanting to see themselves as agentic, it is not surprising that over 40% of statements are linked to effort. Conversely, less than a fifth of statements are linked to task difficulty and ability.

As a next step in interpreting the findings of the research, I mapped seven combinations of attributes onto attribution-driven student profiles (see column four of Appendices K and L). I then compared these against the Q-methodology z-scores of Factor 1 where 60% of students were mapped (see column five of Appendix L). Sorting statements in decreasing importance of the Q-methodology composite Q-sort illustrates whether attribution theory-related attributes were reflected consecutively across the composite Q-sort. Findings from the literature suggest that attribution theory demonstrates that high achievers are more likely to consider their success to be linked to internal controllable factors while failure is linked to external uncontrollable factors (e.g. Ashkanasy and Gallois, 1987). In this research, the student profiles developed using Q-methodology ended up being very different from those developed using attribution theory. While certain individual attributes have been confirmed, e.g. the desire of students to be agents of their learning, the holistic view of priorities across the 45 statements seems unrelated to the sub-components of attribution theory.

As outlined in the delimitation section, as part of this project, individual student grades were not compared against responses for many reasons, such as sampling of different groups of participants. The downside of not having mapped individual student grades is that the applicability of attribution theory and other theories might be limited. In addition, as mentioned earlier, the applicability of attribution theory for this research was further reduced as the attribution process requires interpretation from me as a researcher due to the arbitrary nature of some causes (Dickerson, 2012; Hewstone, 1989).

Therefore, I believe that the adapted Q-methodology on its own, without centring around attribution theory, gives a fairer reflection of ‘truth as consensus’ and is more appropriate to inform ‘theory in relation to practice.’

I would like to summarise this ‘So what?’ section by using an analogy to illustrate why attribution theory did not seem the right tool to make sense of my research findings. I propose to imagine that each of the statements raised

and ranked by students represents a tree situated within a forest. The trees of that forest are made of different species, i.e. the demographics and their intersection. I used the adapted Q-methodology to draw each of the trees on a map and added next to each tree the species. In this ‘So what?’ section, I wanted to provide the reader with a lens to aid understanding of the classification of different species of trees, along with a map to navigate the forest. The Brookfieldian lenses allow me to pick from a range of tools and perspectives, one of which is the use of literature. Within the literature, attribution theory is frequently applied to help understand students’ motivation for learning (e.g. Hsieh and Schallert, 2008). However, when applying attribution theory to this project, I encountered several difficulties; for example, students’ attributions cannot be matched to their actual achievements and there is some ambiguity of attributing causes within the dichotomies (internal/external, stable/unstable). Moreover, the main student profile that was developed using Q-methodology was different from those developed using attribution theory.

Thus, attribution theory, which has been tried and tested to navigate a different forest, helped me understand some of the roots and some of the branches. However, attribution theory did not show me the paths of the forest I am in. Instead, it made me understand that to respond to the research questions I raised, I had to visualise being in an unexplored forest where I had to use the range of tools available to me, with some tools more helpful than others for specific parts of the forest. Only then did the overall toolkit provide insights to navigate the forest and to understand the roots and branches the trees are made from.

4.2.3. Now what? What did findings mean for the application of the adapted Q-methodology study?

In this section, I will explain why I recommend using the adapted Q-methodology and how it integrates different methods, something that is particularly beneficial for inexperienced researchers (Onwuegbuzie and Leech, 2005).

In the methodology chapter, I explained that Hesse-Biber (2015) suggests that researchers should not follow a formal ‘off-the-shelf’ mixed-method design when aiming to achieve strong method symbiosis. This approach neither encourages originality nor answers unusual research questions. Instead, Hesse-Biber suggests that to create an overall convincing study, researchers should focus on making each method component strong in its own right. I believe that the adapted Q-methodology proposed in this thesis strengthens both the quantitative and the qualitative component. The quantitative component is strengthened by adding additional statistical analyses, and the qualitative component is strengthened by conducting additional focus group discussions and interviews with a wide spectrum of stakeholders, especially as some did not participate in the original data collection used for the quantitative analysis.

Similar to Hesse-Biber (2015), Fetters, Curry and Creswell (2013) also advocate building effective combinations, stating that the credibility of research findings is increased if different data sources are triangulated and produce similar results. I believe that this thesis illustrates how the adapted Q-methodology provides a coherent structure to triangulate the qualitative and quantitative data effectively, achieving fluidity and reducing the tension between qualitative and quantitative methods.

This thesis does not claim to have reduced the ingrained tension between qualitative and quantitative researchers, or between ‘traditional’ and ‘non-conventional’ Q-methodologists. The original Q-methodology is prescriptive on data collection, data integration, and data analysis.

While I respect ‘traditional’ Q-methodologists who follow the exact methodology with many interesting research outputs, I aligned myself to a small group of ‘non-conventional’ Q-methodologists who experiment with extended versions of Q-methodology to produce even more nuanced findings. By carrying out this research and disseminating the findings, I hope to open up a constructive dialogue between the ‘traditionalist’ and the ‘non-

conventional' Q-methodologists. I also hope to show that friction can actually stimulate the discussion, and that traditional and the non-conventional Q-methodologies can sit side-by-side with each having different advantages for different types of research questions.

Figure 6, overleaf, shows how I conceptualised an audience-centric adapted Q-methodology as a balanced mixed-method on a qual-quant continuum to capture interconnected factors.

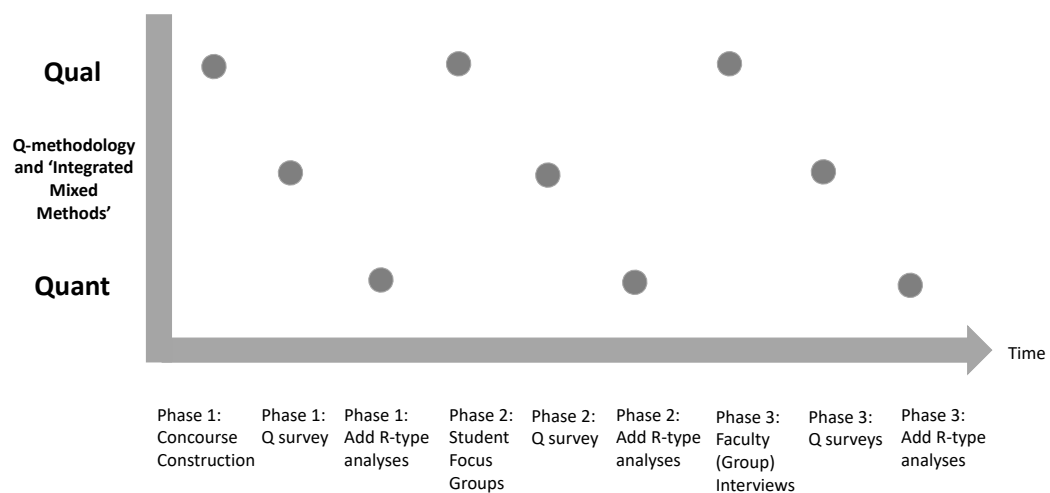


Figure 6: Conceptualising the adapted Q-methodology as a balanced mixed method on a qual-quant continuum.

By increasing the qual with in-depth focus groups and group interviews with students and faculty to discuss the findings, I compensated for the additional R-type quant analyses. This followed Hesse-Biber's (2015) suggestion outlined in Chapter 2 that researchers should make each method component strong in its own right and to then effectively combine data and patterns with meaning and semantics to create an overall convincing study.

To achieve an effective symbiosis of methods in response to their research questions, researchers might want to deploy this adapted Q-methodology. Appendix N provides researchers with a step-by-step guidance for future adapted Q-methodology studies. In addition to methodological

recommendations, this thesis also makes recommendations for teaching practice. I elaborate on these in the following part of this chapter.

4.3. Discussion Part 2: Using student segments to explore perceived barriers

Earlier discussions around students' perceptions of enablers and barriers impacting academic and employment outcomes showed that the majority of students seemed to share very similar views, with the majority focusing on enablers in a generic form, i.e. 'what is perceived as important generally'. As part of this discussion, I will move to 'perceived individual weaknesses'. I will explore barriers at the intersection of gender, ethnicity, and nationality with a focus on the three largest segments: female students from mainland China, female White British students, and male White British students.

During the discussion around these barriers, I will address research questions 3 and 4 and the remaining part of research question 2:

2. Do the students' points of view differ compared to faculty?
3. Do the students' points of view of factors to focus on for academic and future employment success differ by demographic attributes, i.e. gender, ethnicity, and nationality, and their intersection?
4. 'So what? Now what?' From the findings of (3), what are the recommendations for teaching in HE?

There are three key themes that I will discuss here: critical thinking skills, confidence and verbal communication skills. Figure 7 illustrates how these three areas are central within the overall research project.

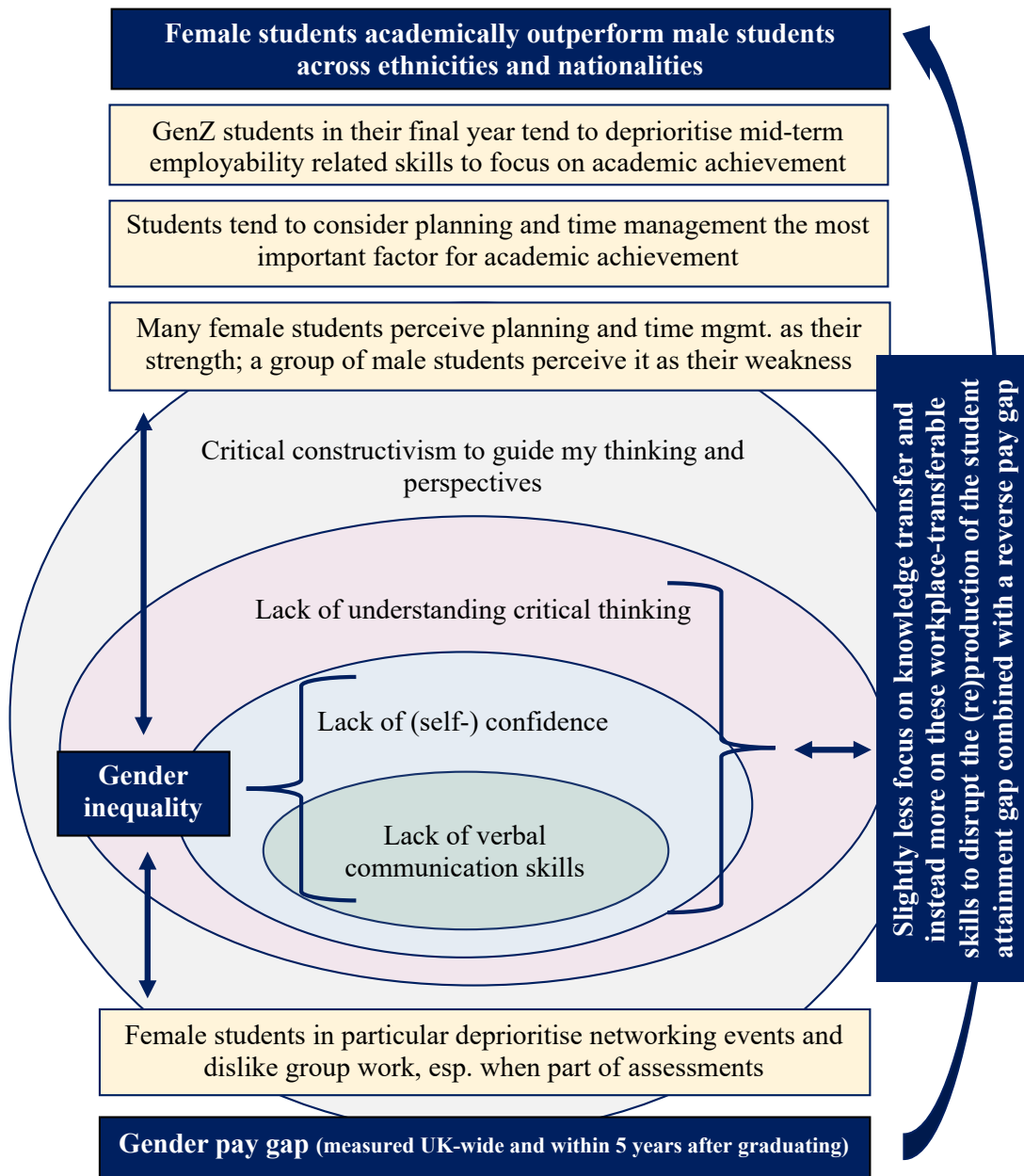


Figure 7: Conceptualising connections between student discourses and faculty's educational practice.

4.3.1. Critical thinking skills

4.3.1.1. What?

With critical thinking, I mean comprehending, evaluating and producing arguments (Harrell, 2011). At BS, critical thinking is part of most learning

outcomes at course and module level. It is also a frequently demanded skill for exam papers and assessments. As part of the focus group, one lecturer described critical thinking as *the skill* (rather than knowledge) being focused on: *'We do try to concentrate on getting students to think critically and ask them to apply these to different case studies. So I think we focus on transferable skills.'* This research shows that this view does not seem to feed through to students. Students, and also workers, seem to not consider critical thinking skills as relevant for their learning in preparation for their future career, or in the case of workers, in progressing their career: *'Critical thinking gets you into trouble, it's important to keep to the mould.'* As part of focus group discussions, international students commented on the volume of facts and theories they have to learn by heart. Home students commented that they are not clear what critical thinking really means. They also think faculty do not have a consistent and coherent message of what critical thinking skills they are looking for in students' work. This mirrors Wright's (2019) position that academics and, as a consequence, their students, do not know the difference between, for example, 'critically assessing' or just 'assessing questions and issues.'

4.3.1.2. So what?

The disconnect between how lecturers think and how students think about critical thinking raises the question why do critical thinking skills seem not to be taught effectively?

The telos of education expressed by Borysiewicz and White (2016, p.3) is 'to help students grow into thoughtful and critical citizens, not just earners and consumers'. Based on the faculty interviews, lecturers seem to believe in the importance of critical thinking and that they do emphasise critical thinking in their teaching. A possible reason for the disconnect between what lecturers think they teach, and what students think they learn, might be that lecturers assume that students already know how to think critically. This might be linked to lecturers not knowing if critical thinking skills have been taught already across other modules as according to one participant there is

no *joined-up coherent skills development across a whole course*. It might also be that lecturers do not find they have sufficient time to pass on the skills, or that lecturers possibly find it less time-consuming to prepare or ‘recycle’ teaching based on knowledge transfer. A further consideration might be that lecturers do not know how to teach *their* critical thinking skills concepts to students of a different generation and frequently from a very different cultural upbringing, for example from China. Especially as lecturers might not have relied on anybody to teach them critical thinking skills when they were students. Lecturers might not want to acknowledge that the student body in HE is now more international, more diverse, and less elitist. Instead, lecturers might want to see themselves as world leading experts where one-way knowledge transmission by reading out of textbooks triggers deep critical thinking, while students comment on their lecturers ‘*treat[ing] books like a bible*’.

Students mentioned that they think that lecturers’ perceptions of the students’ own critical thoughts are that these thoughts are less meaningful than ‘proper’ academic research. Especially international students believe that lecturers are not really interested in listening to their opinions. Thus, could the root cause of misunderstanding of critical thinking be a lack of a true two-way dialogue where students actually can have a voice, instead of students believing that critical thinking involves repeating opinions their lecturer cited as a good example of critical thinking from the literature?

4.3.1.3. Now what?

There are several recommendations emerging from the research on how to improve the students’ comprehension of critical thinking, and by doing so, improving the students’ learning experience.

First, it is necessary to recognise that ‘we’ are not yet succeeding with ‘*getting students to think critically and ask[ing] them to apply these [critical thinking skills] to different case studies*’ and that ‘we’ are not yet ‘*focus[ing] on transferable skills*.’ There should be an acknowledgement that students

perceive 'our' teaching as having to learn facts by heart, similar to the 'banking' concept of education, where 'the scope of the action allowed to the students extends only as far as receiving, filing, and storing the deposits' (Freire, [1968] 2017, p.45). Instead, Freire suggests an informed dialogue between educators and learners.

While UK HE is very different to the time when Freire published his book the 'Pedagogy of the Oppressed' in Brazil in 1968, there are nevertheless similarities, with students perceiving that lecturers still fill their minds with often obsolete 'facts' that seem to students not mindful of their future careers. In line with Freire's suggestion, I encourage lecturers to increase critical thinking discussions by showing interest in students' thoughts, even if they do not appear critical to them or are not underpinned by academic literature.

The second suggestion for lecturers, is to make group work a more desirable and effective activity than it is currently. I previously outlined that the gap between students and workers on group work was significantly different statistically with a large effect size (Phase 1). I also explained that nearly half of undergraduate students at BS are from China or Hong Kong, with tuition fee income benefiting BS and the economy overall. The group work divide between home students and international students can be illustrated by quoting a female White British student (input on seminar participation and group work during the initial survey in Phase 1): *'I do see a massive nationality divide with Chinese students as they very rarely take part. It can often be very frustrating in seminars when they do not even answer a question or talk back to you, let alone group work.'* As part of the focus group in Phase 2, students from Asia acknowledged critical thinking skills as a difficulty, commenting on a perceived negativity around cross-cultural group work with a 'them' and 'us' mentality on both sides.

The third suggestion is to make education more praxis-oriented. In line with a student who commented that the most beneficial part of studying was *'the links made from the theoretical studies with the real-world'*, the example

provided by a lecturer as part of the focus group might be helpful: *‘For example, a student designs a job advertisement and then notices that nobody in the class is going to apply for it and then having to think critically why this is the case. We should more make our students feel the consequences of certain routes [sic]. We do at the moment too many theoretical exercises that are not that strong.’*

4.3.2. Confidence

4.3.2.1. What?

For the purpose of this discussion, confidence is defined as a skill, not a personality trait, that allows somebody to feel *‘at ease in different environments.’* In the literature review, I explained that confidence seems self-perpetuating (Estes and Felker, 2012), that a lack of confidence in female students has been reported pre-university (e.g. OECD, 2015) and also post-university (e.g. Kay and Shipman, 2014). I also pointed out that the role of self-confidence might be particularly important for students of GenZ who seem less confident than millennials (Twenge, 2018).

This research has shown that the perceived importance of confidence for success is significantly lower for students than for workers (Phase 1). This research has also revealed that female and male students see a lack of confidence of female students as a barrier (Phase 1).

Furthermore, based on the investigated three student segments, female White British students and female students from mainland China see a lack of confidence as their main barrier (Phase 2). This is significantly different from male White British students who, along with both female and male BME students from Britain, did not perceive a lack of confidence as one of their key barriers.

While this research project did not investigate why students self-report on a lack of confidence, qualitative statements seem to confirm OECD’s (2015) findings that female students tend to fear negative evaluation by others more than male students do, and are eager to meet others’ expectations for them. It

is proposed not to be complacent and not to dismiss the findings around confidence in this research as anecdotal, as faculty seemed to suggest during the interviews, but to act upon it.

Taking action is particularly important as female students deprioritise networking events in order to work hard(er) and achieve better degrees. Deprioritisation of networking events by female students is, of course, not solely linked to working harder. It is also linked to female students stating that they do not attend networking events because they think they might not stand out from other students or would feel out of place beyond their existing group of friends. As outlined in the literature review, women seem less focused on the strategic component of reputation-building, while men are more likely to pursue a profit-maximising strategy irrespective of others' judgments (Garbarini et al., 2014). Given that student behaviours and attributes at university can lay the foundation for a more responsible and future-oriented perspective (Dumulescu, Balazsi and Opre, 2015), what should be done next?

4.3.2.2. So what?

As part of the faculty interviews, when explaining the findings, faculty's reaction seems loosely aligned to the Kübler-Ross change curve (see Goodman and Loh, 2011). First, the initial 'shock' expressed in response to female students self-reporting a lack of confidence: *'[I]f they say they have a lack of confidence it is not holding them back. God help us when they start feeling confident. They are going to take over the world....'* Then there was 'denial': some faculty doubted female students are really less confident as they deliver excellent presentations and raise questions. Then comes 'frustration' and 'low mood'. This was expressed with statements such as *'I think a lack of confidence is quite an important thing to have'* (female British faculty member). None of the faculty agreed that students' confidence should be boosted, giving three distinct reasons: not necessary, not in the students' interest, and not possible due to limited resources and limited length of teaching time.

The counter-argument for ‘not necessary’ is the finding from Phase 1 of this research, which shows that ‘feeling confident’ is a desired employability and career-progression skill by workers irrespective of gender. This finding is supported by literature and covers the confidence versus competence angle, which is relevant for all employees, not just female staff (Chamorro-Premuzic, 2019). Faculty might have achieved their status without anybody boosting their confidence while they were studying at university; however, this does not mean that this is the case for current students at BS.

The counter-argument for ‘not in the students’ interest’ is again rooted in the input expressed by workers and also the finding of Phase 3 that students are interested in applied education and training that covers boosting confidence. Also, according to workers who participated in this study, skills, including adaptability, seem to last longer than knowledge, with knowledge tending to be obsolete or forgotten by the time students integrate into the workforce. In addition, educational literature suggested nearly 20 years ago that a shift should be made from traditional, knowledge-based curricula to emerging curricula which include ‘action’; this literature also defined competences acquired through doing and ‘self’ as an educational identity in relation to the subject areas (Barnett, Parry and Coate, 2001).

The third argument is that it is ‘not possible’ to teach those skills because there is only a limited budget available, with fixed tuition fees for home students and a possibility of these being reduced in the future (Coughlan, 2019). The view is also linked to conflicting priorities within universities on how best to spend the tuition fees between teaching, research, knowledge exchange and administration. Massified education requires aggregation to bring additional revenue which can be used in areas other than teaching, for example research and knowledge exchange. Aggregation relies on standardisation and does not allow for individual coaching and tuition of students.

Resource-intensive adaptation is especially difficult because the customers, in this case many students and possibly their parents, see a standardised HE as a commodity. In other words, potential applicants would not know during the application process the ‘true’ educational value, with universities having mainly undistinguishable attributes. And even if they knew, students tend not to buy education for its own sake but rather make a choice based on location or league table position and reputation. That said, all major UK league tables include student satisfaction by using the NSS scores as part of their methodology. Do confidence-building exercises increase student satisfaction? As Phase 3 of this research shows, students see knowledge transfer as more important than skills transfer, and for exercises that focus on skills, students distinguish between enjoyable activities versus those that build confidence and increase employability.

If not necessarily a boost to student satisfaction, what about employability and the long-term alumni relationships? Considering the literature and the findings of this research, boosting students’ confidence might increase employability and thus possibly the long-term alumni relationships of a university, which might even result in higher financial alumni contributions. One of the limitations of this study is that it is not a longitudinal study, so there is no ‘proof’ of this consequence and, in any case, it does not add to the current resources. Thus, lecturers will not have further resources to include skills training and coaching in their teaching. Changing the content of teaching and teaching skills takes time, which is seen as a scarce resource for lecturers (McAvinia, Ryan and Moloney, 2018).

Even if lecturers were to take the time to prepare a revised curriculum, would they then see students for long enough to make a difference? A semester at BS is 11 weeks long. For most of the classes, during each of the 11 weeks, lecturers see students for 2 hours of lectures and 1 hour of seminars or workshops. There are 100+ students during lectures and around 30 students per seminar. Most lecturers do not teach more than one module per course. Would 22 hours of seminars with around 30 students give enough time to

teach and practice skills, especially as the BS students might not have grown up in a culture of public speaking? And could there be further reasons behind faculty wanting to preserve the status quo? Could perhaps the biggest constraint be one that was not mentioned? Could it possibly be linked to their own weaknesses? Even if faculty wanted to integrate teaching skills, would they know how to do so? Is the lack of knowing how to do it the reason why faculty suggested as an answer to boosting students' confidence, to take students bowling? And is it a lack of knowledge around skills that make faculty suggest that the answer to boosting students' confidence is to give students worse grades in their first year? In line with Barnett, Parry and Coate's (2001) suggestion that 'professionalism needs to be properly nurtured' (p.448), what about better Continuing Professional Development (CPD)? BS' current CPD has been summarised by faculty as '*well we are not too professional with it. There is a proverb: "Wash me but don't make me wet." They are more a tick boxing [sic] exercise. You don't want to make anything essential with it.*' But what if we changed it? Not desired according to faculty interviewed '*The more we are trying to shape things in a certain direction, the more we risk that it becomes tick boxing [sic].*'

4.3.2.3. *Now what?*

In Kübler-Ross's change cycle (see Goodman and Loh, 2011), the equivalent terminology for 'Now what?' is the 'experiments' step. 'Experiments represent an initial engagement before moving on to 'decision'. 'Decision' is the second-last step and describes the learning needed to work in/with the new situation. The last step in Kübler-Ross's change cycle is 'integration' which is also the last step in Barnett, Parry and Coate's (2001) work on conceptualising curriculum change.

For the point of arrival, 'integration', the suggestion by one faculty member should be considered: '*Having more continuity across our curricula [that] then builds students' confidence gradually in their knowledge and skills and their understanding of both.*' The question is what should happen now to

achieve collaboration between lecturers to discuss confidence-related skills learning outcomes and to develop various related educational activities?

As per the faculty interviews, skills are seen as initial activities for students. It might, therefore, make sense to roll out collaborative experiments for foundation year and year 1 students. This research showed that students who self-reported a lack of confidence also self-report poor verbal communication skills. Hence, I suggest that boosting confidence could be attempted by pushing verbal communication skills. I will expand on this later in this chapter.

Similar to the approach used in this research, when collecting data from students and alumni as part of longitudinal studies, I propose that data should be evaluated at the intersection of gender, ethnicity, and nationality. Sex or gender disaggregated data, for example, better reflects the realities of both men and women (EIGE, n.d.). Suggested action can still be holistic, independent of findings around intersectionality. In this case, the discussion on the perceived level of confidence started as unspecific by comparing workers with all students. The discussion then moved to intersection-specific differences of perceptions, before it moved back to considerations on how to boost confidence for all students irrespective of the intersectionality.

Finally, a personal experience of empowering women that I would like to share is based on my learning around the perceived level of confidence of female students. This year, prior to students choosing the MBA class representative, and alumni selecting our alumni-based MBA advisory board, I encouraged an outstanding female student and an outstanding alumna to stand for election. In both cases, the women would not have put themselves forward as men also volunteered for the positions. The women won each of their elections and have been doing an excellent job since. Similarly, since disseminating the research across BS, a colleague mentioned that when he notices in small group exercises that female students are writing down ideas on a flipchart, he encourages the female students to present the results to the

class rather than give priority to a male student who frequently volunteers for presentations but not for the initial writing on the flipchart.

4.3.3. Verbal communication skills

4.3.3.1. *What?*

In the academic literature, both ‘oral’ and ‘verbal’ communication skills are used to describe the spoken word, e.g. ‘Oral Communication Apprehensions and Academic Performance of Grade 7 Students’ (Cristobal and Lasaten, 2018), and ‘Verbal Communication Skills and Patient Satisfaction: A Study of Doctor-Patient Interviews’ (Rowland-Morin and Carroll, 1990).

I chose verbal communication skills rather than oral communication skills, as this was how students chose to label it as part of the initial survey. When explicitly asked about the choice of verbal rather than oral communications as part of the survey design, the students again preferred verbal communication skills to describe the spoken word.

As part of the literature review, I explained the importance of verbal communication skills in the workplace (e.g. Blume, Baldwin and Ryan, 2013; Darvin, 2017; Hart Research Associates, 2018; Simonson 2013) and also volubility (Brescoll 2011). In addition, effective verbal communication skills are important for students to position themselves in different social and professional environments. These skills are also key to selling products, ideas and even oneself in self-promotion (Armstrong, Olivier and Wilkinson 2018, Coughlan 2018).

The importance of verbal communication skills for academic achievement and employment outcomes was rated differently by distinct groups of participants across all three phases of this research project: in Phase 1, workers placed significantly greater emphasis on verbal communication skills for achievements than did students; this should be seen as a reflection of the appropriateness of skills taught at university, not of a misjudgement by students. Students were asked about academic and employment achievement.

If verbal communication skills are not required at university-level, there is no surprise that there is a gap compared to workers.

In Phase 2, female students both from China and Britain (White British) saw a lack of verbal communication skills as a significantly larger barrier than did white male students or the average student.

Phase 3 showed that the verbal communication activities that were developed and ‘actioned’ as part of this research seem to students to be useful for either building confidence, or for increasing employment opportunities, or as enjoyable. The former includes summative assessed activities aimed at putting students out of their comfort zone, and the latter, individual presentations designed as collaborative information exchanges without repetition between speakers.

Also in Phase 3, students, on average, considered ‘knowledge’ to be the most important element for their studies out of the five areas provided in the survey; however, only one-third of participants ranked it actually as the single most important area. This finding confirms the need for a balanced curriculum (see Barnett, Parry and Coate, 2001; DiCarlo, 2009).

4.3.3.2. *So what?*

The response to ‘So what?’ varies on the metalevel, i.e. whether the perspective is at the national, institutional or individual level.

National and International level

On a national level across HE in the UK, there does not seem to be a systematic development of skills generally, and verbal communication skills in particular. As one lecturer noted *‘So looking back over 40 years of practice, there are only a few sessions that were dedicated to skills acquisition... I do not remember really having sat down with any colleagues or having witnessed that process as a third party or as an external examiner or validator ever, neither in the past nor now. So, I have never seen anybody deliver joined-up coherent skills development across a whole course.’* This

view is also reflected in the academic literature on curricula which points out that knowledge still plays the predominant part (e.g. Barnett, Parry and Coate 2001). DiCarlo (2009), in his Claude Bernard Distinguished Lecture on ‘Too much content, not enough thinking, and too little FUN!’ also reflects on this, as do non-academic reports (e.g. Deloitte, 2014, 2017 and 2019; Economist, 2014; EY, 2018).

Yet, ‘despite the knowledge explosion, many of us continue to teach the way we always have: covering the content’ (DiCarlo, 2009, p.257). Perhaps the deprioritisation of acquiring and developing skills is not surprising considering the course complexities and the early conclusion of projects such as the National Mixed Methodology Learning Gain (NMMLG) project. The NMMLG, a project meant to assess students’ learning gains in the UK, was initiated in 2016 and was due to finish in the academic year 2019-2020. However, it was decided to terminate the project prematurely to evaluate the evidence gathered and to decide on the next steps (OfS, n.d.(b)). While not identical, the concept of measuring the gains of learning is an integral part of Assurances of Learning (AoL) of the American-based Association to Advance Collegiate Schools of Business (AACSB), one of the main three global business school accreditation organisations (MBA, 2019). Schools and faculty have to develop AoLs which are then evaluated using criteria which are summarised in rubrics. Criteria include verbal communication, presentations and debating skills. The assessment of skills takes place at the module and course levels. A good example of AoLs is provided by Victoria University Wellington (VUW, n.d.). While the research does not compare the merits of different educational systems, anecdotal findings seem to suggest that UK and European universities and accreditation agencies seem less focused than their US counterparts on skills, including verbal communication skills.

Of course, as outlined in the literature review, there are many other important career enablers and career inhibitors in addition to verbal communication skills (e.g. Blume, Baldwin and Ryan, 2013; Chinchilla et al., 2006; Darwin,

2017; Hart Research Associates, 2018; Simonson, 2013). However, it is important to acknowledge verbal communication skills as a career accelerator that is currently neglected in HE in the UK.

School level

During the group interview lecturers were engaged when discussing ‘confidence’ and ‘critical thinking’ skills. Conversely, for verbal communication skills, lecturers seemed aware of the shortfall, yet were not interested in discussing it further. The topic was ‘shut down’ with a comment *‘These [verbal communication skills] were meant to be part of every module.’* The choice of the word ‘were’ rather than ‘are’ is interesting, as it conveyed a disheartened and disinterested attitude. This stopped any further conversation on the topic while the topics before and after were discussed at length. I tried to raise the topic again in May 2019, both at a departmental and at an institutional meeting, and again there was no interest. This was in contrast to the interest expressed at an Advance HE Conference in July 2019, where my presentation on the topic was well attended, though presenting reminded me of ‘preaching to the converted’.

Individual level

As outlined in earlier chapters, as part of this research, I focused for one term extensively on verbal communication. I organised a broad spectrum of activities with external participants (mainly employers from industry) and also an expert in verbal communication, who usually works with actors and inspirational speakers. Three-quarters of students were ‘very satisfied’ (highest score), and one-quarter ‘satisfied’ (second highest score). While 4.75 out of 5 is a good result, it was in line with my usual results. Therefore, the additional work I put in to preparing for the various activities as well as organising additional guest-interventions seems undervalued when considering, in neoliberal terms, student satisfaction ratings as an outcome.

Ignoring the lack of increased satisfaction ratings, it was rewarding to work with students on these activities as a step towards dialogic action. I learned

from the students as much as they learned from me. I also saw how student engagement and extensive preparation can make a difference. I was impressed by one presentation in particular, where, as noted as part of the findings, the female speaker was relaxed and at ease and made the presentation appear very ‘natural’. It was also interesting to read the students’ comments on the activities. This experience will allow me to refine my teaching and application of rhetoric and related educational activities.

4.3.3.3. Now what?

International and national level

Developing soft skills and, in particular, verbal communication skills in HE could offer the opportunity to disrupt perpetuating gendered soft-skills inequalities. Of course, societal inequalities and soft-skill inequalities also exist between different universities. Elite universities, such as Cambridge and Oxford, offer substantially different opportunities for the development of such skills; for example, through weekly small tutorials (Cambridge, n.d.; Oxford n.d.). That said, as part of Phase 1 of this research project, 19% of students were from an elite university and their responses were aligned with those of other students. Combined with anecdotal findings from informal discussions with students, I infer that the perceptions that underpin gendered soft-skills inequalities appear to be constructed through comparisons with peers.

UK universities teach most undergraduate students for three years, at a time when the majority of students are still young and habitual scripts could still be rewritten. Verbal communication skills, and soft skills generally, could also be used to bridge the gap between students from different cultures. Perhaps by providing skills-training, international students could be better integrated and home students could be made to feel that having an international community is beneficial.

So, what are some of the constraints to implementing skills training across the UK or, conversely, what can faculty gain by developing verbal

communication skills as part of their teaching? While the OfS wants to put students first (OfS, 2019b), currently, teaching is effectively recognised as a tertiary criterion for success in academia globally (Marler, Young and Kirchherr, 2018). To change this entrenched non-educational research focus, incentives might be necessary to change faculty's behaviours, for example, through tenure or promotion criteria (McKie, 2019).

Developing teaching-related criteria and metrics is difficult. While the main metric for measuring teaching effectiveness at an institutional level is the NSS, there appears to be doubt that students can accurately evaluate teaching quality (e.g. Darwin, 2012). Even if student evaluations were to be used to measure individual teaching effectiveness and innovations around skills, these evaluations have only a termly lifespan, with lecturers only being as good as their last student evaluation. Conversely, research excellence claims seem to span a substantially longer time and moves with the lecturer should he/she change universities. The UK Research Excellence Framework (REF), for example, measures research every seven years with the most recent review in 2014 and the next review in 2021.

Even if metrics for incentivising the implementation of soft-skills related initiatives were developed and the related resources were found, faculty interviews and literature suggest that there are three different opinion strands around what should happen next.

First, there are those who think we should educate employers to reduce the gender pay gap *'We all know that women are not good in negotiating their salary... I feel it's up to the employer to manage this... [The pay gap] is about employers not being responsible for the decisions they make.'* This links to a proposition to change the societal values that are currently perceived to make a good leader, e.g. rather than teaching how to be a charismatic leader, some argue that it is better to change society to push for humble leaders with empathy and self-control (e.g. Chamorro-Premuzic, 2019).

Second, there are those who doubt that *'teaching [students] how to fake it can work as those who fake it will always be worse than those who do it naturally. No matter how well you teach somebody it may come across as fake and actually be counterproductive in terms of them getting the jobs. Because in effect you are pretending to be somebody you are not. People see through this kind of things [sic]. There is a danger in promoting something that is perhaps counterproductive.'*

A third view is that charisma can be taught both at work and at university, and that learned charisma improved ratings of perceptions of leadership measured by leader prototypicality and emergence (Antonakis, Fenley, and Liechti, 2011). This position does not endorse charisma and self-promotion as the panacea; however, it states that charisma can be taught and that charismatic leaders and self-promoters seem to get ahead at work (Armstrong, Olivier, and Wilkinson, 2018; Chamorro-Premuzic, 2019; Coughlan, 2018). This influences anyone who might not naturally fulfil the societal expectations of a charismatic leader, not just women (Chamorro-Premuzic, 2019). In the next section, I review the recommendations related to this third opinion.

[Institutional and individual level](#)

If BS, or a different school, decided to integrate verbal communication as part of the curriculum, then they might want to consider the following recommendations that are borne out of the findings from the research.

First, lecturers will require some training, which would be beneficial for the development of their own teaching styles, because *'[h]ow we teach is much more important than what we teach and nothing reduces enthusiasm for a subject faster than poor teaching'* (DiCarlo, 2009). Furthermore, to teach verbal communication skills, lecturers need to gain an insight into how to teach charisma and the components of rhetoric (invention, arrangement, style, memory, delivery). The training could take place via optional inter-departmental courses, possibly as part of a CPD programme, so participants

can 'claim it', e.g. as part of their PGCert, HEA Fellowships, or CMBE applications.

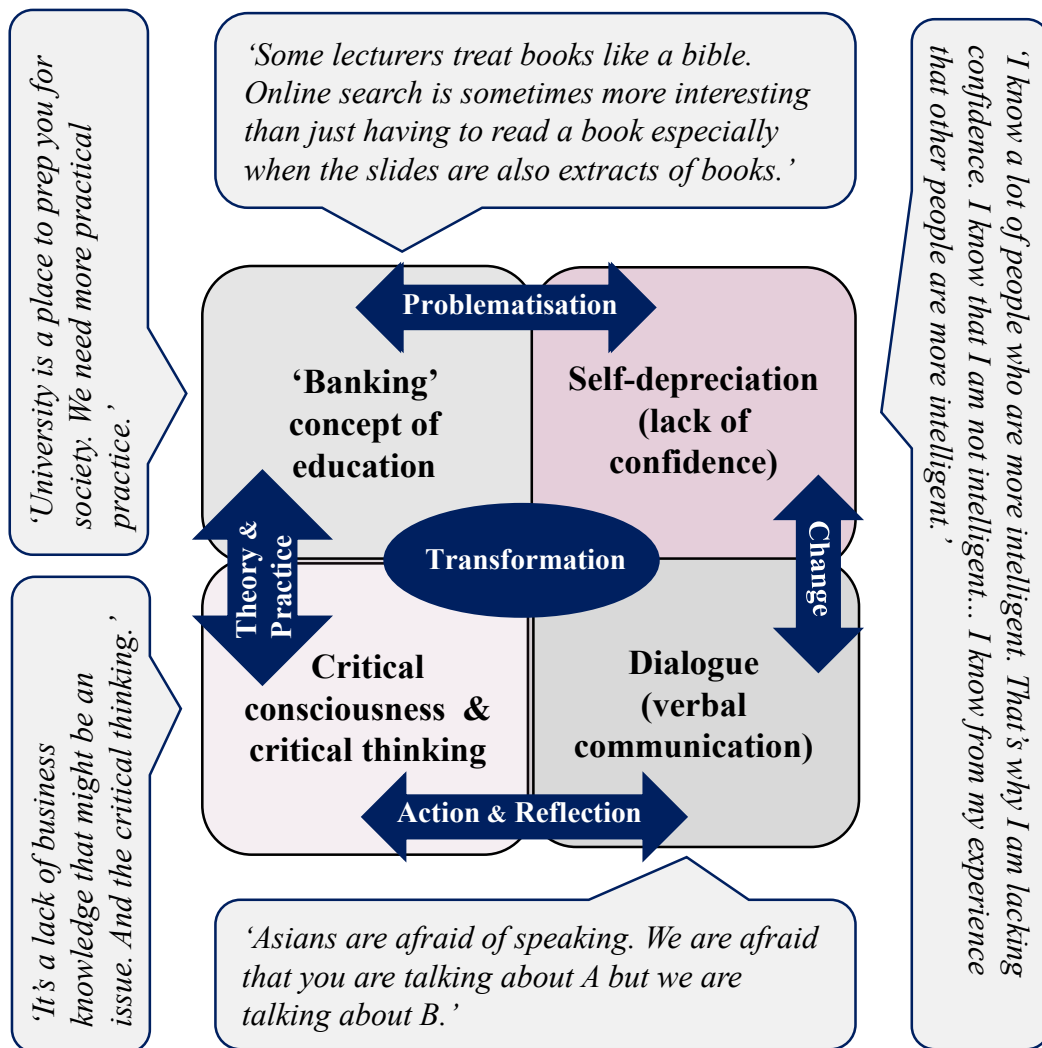
Second, as part of a generic teaching training day, there should be a discussion around the cohesion between skills taught across different modules on the same course. The increase of communication between lecturers on the same course will allow them to know which skills have already been taught in other modules and which are going to be taught in parallel or future modules.

It will also enable the development of a sound coherent andragogic platform which then can be used as the basis to develop AoLs. Discussions should also include academic advisors, who could use the focus on soft skills to develop short-term and long-term personal development plans for students.

As outlined in section 5.5, as part of recommendations for future research, it is proposed to set up appropriate learning analytics including a feedback loop to create lifelong networks with lifelong learning opportunities.

On a personal level, I implemented innovative and engaging verbal communication exercises for students and discuss these in Appendix O.

Finally, in Chapter 2 I outlined the relevance of some Freirean concepts for this research project. Figure 8 refers back to it by mapping the same concepts with student voices. This illustrates on the one hand the significance of the themes discussed in this chapter and on the other hand it demonstrates the urgency for change as the same concepts that were raised by current students were already significant when Freire developed the 'Pedagogy of the Oppressed' in 1968 (Freire, [1968] 2017).



Source: Student voices expressed during the primary research of this study (focus group interview with students from Asia, May 2018). Concepts taken from the 'Pedagogy of the oppressed' (Freire, [1968] 2017).

Figure 8: Conceptualising the relevance of some of the Freirean concepts using student voices from Asian GenZ business students studying in the UK.

4.4. Discussion Part 3: Reconnecting to the wider context

As outlined in Chapter 2, to understand the factors influencing academic and employment outcomes I positioned my thesis in critical constructivism: ‘constructivism’ because I wanted to explore demographic differences that explain the perceptions of individuals that contribute to the student attainment gap and/or to the reverse pay gap; ‘critical’ because I see education as a conduit for change, i.e. as a tool to construct new realities which result in narrower gap(s). Change is complex and challenging, requiring sometimes uncomfortable questions to lead to action. There are three questions guiding the discussion for this section:

1. Future-proofing education: Are British universities failing GenZ students in the preparation for the workplace?
2. Inequalities of perceptions and perceptions of inequalities: Are British business schools failing female students in particular?
3. The uncomfortable ‘truth’ about gender: Why does it seem acceptable to focus on certain student segments and not on others?

These three questions might appear removed from the overall research objective and the five research questions, however, offer an opportunity to reconnect with the wider context. The aim of this section is for the reader to appreciate the general topic relevance and to see the connection to the overall HE ecosystem. To respond to these three questions, for the second time in this thesis, I apply the autobiographical Brookfieldian lens.

4.4.1. Future-proofing education: Are British universities failing GenZ students in the preparation for the workplace?

There are multiple and evolving agendas within HE with changing definitions of ‘successful education’. Historically, self-governed universities with a small ‘elite’ student base focused on transmitting abstract theory. There are

now an increasing number of providers and stakeholders, with employers pushing for more praxis-oriented skills. The employability agenda is therefore one of the priorities of the OfS. Value for money is another one. The OfS measures the value for money of students' education in different ways; including by how graduates are meeting the knowledge and skill requirements of employers (Key Performance Measure 16 - OfS, 2019a). As outlined in the introduction, the aim of HE to provide an appropriate and transferable skillset and to listen to the student voice, is reflected by the introduction, in 2017, of the TEF, with the NSS as an integral part of the TEF. Does the OfS, TEF and NSS encourage future-proofing of the education of the current GenZ students? And do the research findings of this study show elements of future-proofing? To answer these questions, I will first summarise key concepts surrounding future-proofing education.

There seem to be four themes for future-proofing education:

- (1) A move from technologies as primarily support tool to using technologies for value creation.
- (2) A move towards integration and connections of students and ideas to create synergies.
- (3) A move from standardisation to differentiated pedagogic / andragogic practices and making students co-creators of their learning and authors of their own lives.
- (4) A further emphasis on key transferable skills, such as complex problem-solving skills including cognitive flexibility and lateral thinking, critical thinking and logical reasoning, creativity, and communication skills combined with emotional intelligence to be able to connect with others and to be able to influence and to negotiate effectively.

When reflecting on the first area, it is important to remember that one of the key differentiators of GenZs compared to previous generations is that GenZ is the first generation of digital natives who are more technology savvy than

previous generations. The IT (Information Technology) savviness was clearly demonstrated by participants in their Q-sorts, leading to developments of profiles such as the ‘cyber-socialisers’. Yet, this study has also shown that GenZ students currently do not see technologies as an enabling influence to their academic and employment success. This is possibly linked to the majority of faculty seemingly seeing educational technologies, as currently deployed in HE, not as an enabler to learning.

As for the NSS, there is one question on IT, question/statement 18: ‘The IT resources and facilities provided have supported my learning well’. This question illustrates the ‘old-fashioned’ application of IT as a support tool rather than for the NSS to investigate if students have learned to make use of IT for value creation.

NSS questions have a profound effect on institutional module evaluation questionnaires, and thus on defining teaching excellence of individual lecturers. This is because many universities use the NSS questions, and especially questions where the specific institution did not score well in previous years, to evaluate modules. For example, the most recent module evaluation questionnaire at BS featured the following seven questions:

- (1) It was clear to me what I would learn, why and how.
- (2) The materials on Canvas [the intranet site] were useful and relevant.
- (3) The recommended reading lists were appropriate and up to date.
- (4) I have received feedback on my work (including queries after teaching sessions, in person, or by e-mail) which may have helped my understanding/clarified things I didn’t know, helped to explain a grade, or identified areas for improvement.
- (5) Clear information about the assessment of this module, and the marking criteria, was provided.
- (6) Teaching accommodation and facilities were satisfactory.
- (7) Overall I was satisfied with the module.

Besides all seven module evaluation questions having been very procedural, with no question on the actual teaching, i.e. nothing comparable to the NSS question ‘Staff have made the subject interesting’, there is no appropriate IT question on whether students felt that the module helped them with applying IT to achieving their goals.

When considering the future-proofing around the second theme, i.e. the move towards integration and connections of students and ideas to create synergies, there are no relevant BS module evaluation questions but two (out of 27) relevant NSS questions:

- My course has provided me with opportunities to bring information and ideas together from different topics.
- I have had the right opportunities to work with other students as part of my course.

As for the third theme, a move from standardisation to differentiated pedagogic and andragogic practices, and making students co-creators of their learning and authors of their own lives, the only question that is remotely related is the question on whether students have received feedback on their work.

When reviewing theme four, the transferable skills, neither BS’ module evaluation questionnaire nor the NSS feature appropriate questions. Interestingly, the NSS for apprenticeships does feature questions on skills acquisition. This illustrates how the OfS, while talking about encouraging skills development in their Key Performance Measure 16, positions skills primarily as part of the apprenticeship degrees.

An interesting aspect of theme four is critical thinking. This thesis explained that there is a disconnect between what lecturers think they teach as critical thinking skills and what students understand as critical thinking skills. Similar to students, the workforce participants also did not value critical

thinking skills, seemingly blurring interpretations of critical thinking, criticism, critiquing and contradicting. Considering the range of future-proofed skills, i.e. complex problem-solving, cognitive flexibility, lateral thinking, and logical reasoning, perhaps one-way to contribute to future-proofing is to use critical thinking only for assignments that actually do require specifically critical thinking rather than analytical thinking, for example. The problem with using other adjectives than critical, or no adjective at all in front of thinking, is that unless the word critical is included in the learning objectives for level 7 modules and courses, these are not approved. A possible reason for this might be a misinterpretation or overrating of Bloom's taxonomy. Perhaps the SOLO (Structure of Observed Learning Outcomes) taxonomy, used frequently in secondary school teaching, could provide a less stringent view on the inclusion of critical thinking for learning objectives. When using SOLO, teachers can move individual students one level higher, or lower, in the taxonomy by defining a mix of learning material and instructional sequencing.

Still on theme four, developing communication skills to be able to connect with others, are discussed at length in other parts of this thesis. Here I would just want to point out to the importance of these skills and the lack of mentioning of these both in the NSS and in the specific BS questionnaire. To include these essential skills in the curriculum it might be good to create meaningful feedback loops with alumni, possibly through an increased use of social media groups, set-up already when students are still at university, e.g. via LinkedIn. These meaningful feedback loops might then allow for deepening the post-course consciousness of both lecturers and students. This in turn will facilitate students' understanding of the value of the transferable skills that are being taught.

In response to the question raised as part of this sub-section, it is suggested that regulators and universities could strengthen the future-proofing of their

provision to help GenZ students anticipate and prepare better for the requirements of their future workplace.

4.4.2. Inequalities of perceptions and perceptions of inequalities: Are British business schools failing female students in particular

In this sub-section I argue that gendered perceptions play a larger role than is currently attributed to gender and that this leads to a dysfunction. A self-reported perception of a lack of confidence by female students, linked partly to a lack of confidence in certain types of skills, remains currently 'undetected' during their studies and then, when the same perceptions and behaviours continue into the workplace they contribute to the gender pay gap. A reduction of this dysfunction requires a mind shift of lecturers' perceptions, possibly achievable through strengthening of lecturers' post-course consciousness.

Currently in HE in the UK, students from China exceed any other non-UK nationality (UKCISA, 2019). As outlined in Chapter 1, at BS, for example, nearly half of the undergraduate students come from China or Hong Kong. Yet, there seem to be no studies that focus at the granular differences of perceptions for Chinese students by region of origin (Mainland China versus Hong Kong) combined with gender. Appendix J provides an overview of the differences of perceptions by gender for the following segments of students: Han Chinese from Mainland China, Han Chinese from Hong Kong, white British, BME British, white EU, BME EU, Asian from outside China or Hong Kong.

One of the strengths of Q-methodology is to provide granular details of student segments. For the largest three student segments in Phase 2, i.e. business school specific, I developed, i.e. calculated, nine Q-methodology clusters at the intersection of gender, ethnicity and nationality. I found that when correlating ranking of barriers, the perceptions of white British female home students were more aligned with students from mainland China than with white British male students. In particular the largest female student

segment from China and the second largest one from Britain, both labelled in this study as ‘the optimists’, correlate (correlation coefficient 0.6). These segments are in contrast to the largest male white British student segment ‘the cyber socialiser’ (correlation coefficient -0.8 compared to the female Chinese ‘optimists’ and correlation coefficient -0.7 compared to the female British ‘optimists’). The largest female white British segment ‘the planners’ are the opposite of the second largest white male segment ‘the non-planning extrovert’ (correlation coefficient -0.7).

These polarised student segments triangulate findings of the R-type analyses in Phase 2. These showed a perceived lack of confidence by White British female students compared to their male counterparts, underpinned by a statistically significant difference with a large effect size. The perception of a lack of confidence is linked to a perceived lack of verbal communication skills for female White British students, while a perceived lack of confidence is primarily linked to a perceived lack of analytical and critical thinking skills for female students from mainland China, with communication skills coming second.

The reason why these inequalities of perceptions led to me to perceptions of inequalities in the preparation for the workplace, is that statistically significant findings with large effect sizes in Phase 1, point to verbal communication and confidence as areas that students deprioritise compared to workers. Qualitative findings illustrate the link between confidence and networking / making connections. Female home student: *‘I am not going to stand out in a crowd and I better work hard go get a first on my degree which I can then put on my CV as part of my job application’* and female student from Asia: *‘If I’d (sic) go to events by my own self, I would be worried about it.’*

Currently female students outperform male students academically and then, five years after graduating, female graduates in the UK face a gender pay gap of 15% (Department for Education, 2019). Academic achievement and career

outcome disparities seem to follow similar patterns and trends at the intersection of gender, ethnicity, and nationality. I have explained earlier in this thesis that the disparities are linked to many factors, such as the selected career paths. In addition, this thesis has demonstrated that when reviewing how different people attribute barriers influencing their academic and career outcome, gendered perceptions play a larger role than is currently attributed to gender. This leads to a dysfunction: female students self-report feeling less confident than male students during their studies. It stays undetected because female students outperform male students during their studies. However, the feeling of a lack of confidence generally, and also related to verbal communication skills, analytical skills and critical thinking, continue into the workplace where it then might contribute to the gender pay gap.

To reduce the dysfunction it is important for lecturers to acknowledge that it is not about the quiet 'girl' who is happy about being quiet, it is about ambitious female students who get higher grades than their male counterparts and who are perceived by lecturers as confident, yet are self-reporting a lack of confidence and an interest in further verbal communication practices, which could then influence career development and gendered behaviour in the workplace. It is also important for lecturers to acknowledge that with verbal communication practices students do not mean further group presentations but individual verbal communication founded in impromptu communication. The mind shift of lecturers' perceptions is particularly important in a business school environment where these types of skills are relevant for (neoliberal) success in the workplace. One suggestion that might positively impact lecturers' perceptions is the strengthening of lecturers' post-course consciousness. The concept of post-course consciousness has been discussed in various places of this thesis and also forms an integral part of the next sub-section.

4.4.3. The uncomfortable ‘truth’ about gender: Why does it seem acceptable to focus on certain student segments and not on others?

I outlined previously that in Phase 2 of this research project I developed nine clusters for three student segments at the intersection of gender, ethnicity and nationality. I found that when correlating ranking of barriers, the perceptions of white British female home students were more aligned with female students from mainland China than with white British male students. Yet, as part of the semi-structured surveys and focus group discussions, participating students spoke more about a home – international student divide rather than a gender divide. Also, as part of the faculty focus group discussion I was ‘accused’ of reinforcing gender binary thinking. In another discussion I was told that I was a feminist who found the information I was looking for. And in yet another one I was told that I ignore in my gender discussion concepts of happiness and wellbeing where female students might appreciate to not strive for a career that requires confident outspokenness.

So why, when having statistically significant findings with large effect sizes that prove a gender divide, and further explanatory factors (e.g. the gender pay gap) students and faculty do not attribute gender as factors influencing their career outcomes?

I propose five reasons for the avoidance of gender as an attributional factor in HE. The first reason is the polarity between nature and agency: despite gender seeming to be important in educational and career outcomes, students who participated in this study had an overall aspiration for agency. They do not seem to want gender, in the sense of ‘uninfluenceable nature / biological sex at birth’, to matter.

The second reason deals with the polarity of nurture and culture. When considering gender in the sense of ‘nurture and effort’, the underlying secondary gender factor gets deprioritised compared to the more visible primary factor partly because the ‘culture’ around ‘the gender concept as

culture' is not desired: the aim is to ensure equality of input / treatment between men and women rather than equity of outcome. We know, for example, from Butler's work on gender performativity, that gender is being constructed through compliance with dominant societal norms. This leads to the attribution of visible primary factors rather than underlying secondary factors, e.g. a segment of female participants attributes importance of their failure to lecturers, while other female participants attribute importance of their success in HE to their personal planning skills. In contrast a segment of males recognise that planning is important, make self-attributions to the effect that they themselves cannot plan.

The difference in attitudes towards planning links to the third reason for the avoidance of gender as an attributional factor in HE. This research has shown that female students might attribute planning as a contribution to an excellent grade while non-planning by male students still allows for an acceptable grade. If these behaviours continue in the workplace – and as part of the literature review and the workforce surveys I have demonstrated it does - women continue to do the planning, while men focus on charismatic communications, with one being more rewarding, in neoliberal terms, than the other. Yet, the reverse gender pay gap only happens once students have left university. So the reason why it is not acted upon while female students are in HE is that there is a lack of post-course consciousness and a lack of feedback loops from alumni to lecturers to develop a post-course consciousness across lecturers and students.

The fourth reason is that HE is still predominantly 'male' in senior positions. At BS the share of female professors is 16%. This low proportion has not changed in the past four years and, actually, the relative share of female professors at BS will further reduce once the current promotion round has taken effect. Literature and informal as well as formal conversations have demonstrated that relatively more women than men are interested in discussing topics around gender. Considering that 84% of professors at BS

are male, and independent of gender, successful academics tending to attribute their success to effort, an internal and unstable factor, providing additional tailored support to students is not a priority.

The fifth reason is the lack of novelty. Gender discussion seem to have existed throughout the lifetime of everybody currently working in HE. There seem to be regularly encouraging trends portrayed by the media, e.g. a reduction of the length it will take to close the gender gap in the UK (albeit to 99 years) and there seem to be many more pressing other issues. In contrast to gender, for home students, the white - BME divide represents a current national strategic priority: there is a significant achievement gap already during their studies, and no explanatory and 'objective' reason, such as English as an additional language, which can explain the gap. Focussing on the home – international students divide is also encouraged: after all there is a duty towards international students because of the higher tuition fees. Inter-generational research is also welcomed. This research project is at the cutting edge of GenZ student findings, having started exactly at the time when the first cohort of GenZ students graduated. Gaining new and exciting information on a generation is insightful, unless, of course, it is overshadowed by 'the same old gender discussion'.

4.5. Summary

When analysing students' perceptions of factors influencing academic attainment and employment outcomes, there are two different levels of factors. There are the enablers and barriers to academic attainment and employment outcomes which students voiced and ranked throughout this research project. The second, deeper, level of factors comprises demographics that can be considered a moderator to affect the first level of factors, i.e. gender, ethnicity, nationality, and their intersection.

In the first section of this chapter, enablers and barriers, i.e. the first level of factors, were discussed. I explained that planning, time management and organisational skills are perceived by students as the most important. I

analysed why there is a discrepancy between the role students attribute to technology in the classroom and the role HE attributes to technology. I also reviewed the dissonance between the students' and the workers' thoughts on group work and other factors. In addition, I discussed the applicability of attribution theory and explained why I used attribution theory to conceptualise a balanced Q-set.

I then explained why I recommend using this adapted Q-methodology, and how I believe that I achieved a strong symbiosis of methods by experimenting with and extending Q-methodology. I was able to strengthen each of the qualitative and quantitative components to produce original and more nuanced findings in response to the research questions. By achieving fluidity, I attempted to reduce the tension between qualitative and quantitative methods. However, I did not reduce the tension between the traditional and the non-conventional Q-methodologists. By carrying out this research and disseminating its findings, I hope to start a constructive dialogue that can illustrate that friction can stimulate the discussion. I also hope to show that both the traditional and the non-conventional Q-methodologies can sit side-by-side, with each having different advantages for different types of research questions.

In the second section of this chapter, three key themes were discussed. The first topic under discussion was the dissonance between the reported teaching and learning of critical thinking skills. Teaching critical thinking skills is seen by students, especially international students but also home students, as inconsistent between lecturers. Instead students perceive their education as having to learn facts by heart.

The second topic that was explored was the reported (self-) confidence gap by female undergraduate students. Not tackling the confidence gap might mean that female students continue to work harder to achieve 'competence', i.e. higher grades, only to find that in the workplace 'confidence' counts as

much as ‘competence’. In addition, the right level of confidence is recognised as important for general mental wellbeing.

The third topic examined was verbal communication skills. Literature suggests that taught charisma improves ratings of perceptions on leadership and that charismatic leaders and self-promoters seem to get ahead at work. Several verbal communication activities in Phase 3 show that students perceive some of the verbal communication activities as enjoyable while they see others as a useful tool both for building confidence and improving employability. As part of Phase 1, one-fifth (19%) of students were from an elite university. These student responses were aligned with those of other students, despite Cambridge and Oxford offering substantially different opportunities for the development of verbal communication skills through small tutorials. Thus, perhaps it can be inferred that gendered soft-skills inequalities might be perceived as relative compared to other students in the cohort or to co-workers.

Considering that HE is now catering for a wider and more diverse audience than in the past, with knowledge no longer being unique to universities but freely available to students over the internet, in the third section of this chapter I discussed three questions:

1. Future-proofing education: Are British universities failing GenZ students in the preparation for the workplace?
2. Inequalities of perceptions and perceptions of inequalities: Are British business schools failing female students in particular?
3. The uncomfortable ‘truth’ about gender: Why does it seem acceptable to focus on certain student segments and not on others?

Chapter 5. Conclusion

5.1. Introduction and chapter outline

In this final chapter, I will refer back to the context before moving to the primary research findings, including recommendations for practitioners. I will also outline the limitations of this research and make suggestions for further research before providing concluding comments.

5.2. Thesis summary

5.2.1. Back to the beginning: trigger, research questions and methodology

The research is positioned within an HE landscape that evolved from an elite to a mass education system in an international market setting where, in addition to research output, student satisfaction and student employability matter. The aim of this research was to develop among lecturers a post-course consciousness, where lecturers consider it their professional responsibility to consider the students' future employment and to ensure lecturers teach and students understand the value of the transferable skills taught in their module (Martini, 2019).

By collecting viewpoints of students of the new GenZ, I wanted to investigate if I could find similarities and differences which might explain why, based on mean average grades, female students outperform their male counterparts during their studies and yet encounter a reverse gender pay gap in the workplace. I also wanted to develop and test an adapted Q-methodology with the aim of making Q-methodology more audience-focused and more accessible.

The five research questions that I sought to answer were:

1. What do GenZ students perceive as important factors to focus on in their final year of undergraduate studies for academic and employment success?
2. Do the students' viewpoints listed in (1) differ compared to other students, faculty, and workers as their future employers/colleagues?

3. Do the students' viewpoints listed in (1) differ by demographic attributes, i.e. gender, ethnicity, and nationality, and their intersection?
4. 'So what? Now what?' From the findings of (1), (2), and (3) what are the recommendations for teaching in HE?
5. Should the adapted mixed-methods Q-methodology approach be deployed for future research, and if yes, how?

To respond to these questions, I positioned the research in 'critical constructivism'. Knowledge was generated based on 'consensus theory' and should be seen as contributing to 'theory in relation to practice'. Q-methodology was used in an exploratory three-phase mixed-methods setting where, for each phase, an initial qualitative research step was followed by a quantitative Q-methodology data analysis before moving into R-type data analyses.

5.2.2. Summary of research findings

5.2.2.1. *Qualitative research*

Through qualitative primary research, the viewpoints of students and faculty were compared and contrasted. Two key themes emerged. First, the findings show that faculty believes that knowledge transfer has to be dominant in HE, with their attitudes being confirmed by students commenting on the volume of facts and theories they have to learn by heart. While faculty believes that in addition to conveying knowledge, they also teach effectively relevant critical thinking skills, students do not appear to understand the transferability of critical thinking skills for their future careers, and thus do not seem interested in assimilating critical thinking skills. Students also think that faculty does not teach critical thinking skills consistently, resulting in a lack of clear message of what critical thinking constitutes. Instead, students appreciate predictability and see short-term planning and self-regulated learning as an important area of focus.

Second, from the initial qualitative research step onwards, students of both genders commented on a lack of confidence by female students which might result in their working harder to compensate and achieve higher grades; however, by doing so, they might not take advantage of more long-term networking and career opportunities and also feel more stressed which, in turn, further decreases self-confidence. Faculty members, on the other hand, were ambivalent about whether female students, compared to male students, lack confidence. When asked what could be done to boost students' confidence generally, all lecturers had their own ideas, without any appetite for really changing their approach to teaching and learning. This despite literature and non-HE workers' surveys confirming both self-confidence and verbal communication skills as a career accelerator.

5.2.2.2. Q-methodology findings

In each of the three research phases, I used PCA to identify student profiles based on distinguishing statements, such as time management, self-confidence, or verbal communication skills.

In Phase 1, the seven student profiles based on 55 student responses from a coherent multi-disciplinary and cross-university sample were:

1. **'The planner'** (STPL-SRL): keen on planning and time management, believing that hard work pays off, unaware of (gender) biases (33 participants).
2. **'The high-flyer'**: ambitious, stress does not matter (5 participants).
3. **'The soloist'**: consider themselves intelligent, no need to engage in groups or societies (6 participants).
4. **'The analytical thinker'**: analytical, no excessive social life (4 participants).
5. **'The pragmatist'**: proactive, unaware of (gender) biases (6 participants).
6. **'The worrier'**: financial worries, no connections that can help (4 participants).

7. **'The realist'**: all is related to luck, ambition does not make a difference (2 participants).

In Phase 2, student profiles were established at the intersection of gender, ethnicity, and nationality from a larger sample from a single business school (n=170). All 24 female students from mainland China who participated were associated with one of three factors:

1. **'The optimist'**: a self-reported lack of confidence and a belief of weak analytical skills but generally satisfied with the teaching and learning opportunities provided (15 participants).
2. **'The ingenuous'**: poor time management and weak analytical skills, but not distracted by social media; besides those weak analytical skills, generally feeling confident (5 participants).
3. **'The truant'**: not persevering and not attending lectures, but verbal communication skills and teaching themselves skills is not an issue (4 participants).

The three main profiles for 25 female White British students were:

1. **'The planner and organiser'**: a self-reported lack of confidence and poor verbal communication skills but very organised with excellent time management skills (6 participants).
2. **'The optimist'**: a self-reported lack of confidence and poor time management skills, but appreciating lecturers and lectures (5 participants).
3. **'The pessimist'**: lecturers not living up to expectations and having to self-teach things outside the classroom (5 participants).

For 26 male White British students, the three main profiles were:

1. **'The cyber-socialiser'**: distracted by social media but confident overall and also in writing skills (11 participants).

2. **‘The non-planning extrovert’**: poor planning and time management and often not persevering, but a good communicator (especially verbally but also in writing) (4 participants).
3. **‘The introvert’**: not persevering and a weak verbal communicator but good analytical skills and keen to learn things outside the classroom (2 participants).

For the Q-sorts in Phase 3, similar to Phase 2, all students were from the focal business school. As in Phase 1, the 27 participating students were considered collectively, independent of demographic attributes. When considering the best approach to become more confident through learning, the following three profiles emerged:

1. **‘Interested in personal support’**: these students are interested in having more individual time with academic advisors and are definitely not interested in additional public speaking in class (6 participants).
2. **‘Interested in more public speaking’**: these students are interested in more speaking in a whole-group setting (5 participants).
3. **‘Interested in more informative in-class feedback’**: these students are interested in receiving more feedback from lecturers and tutors during lesson time and are not interested in additional career or employment advice outside the classroom (4 participants).

5.2.2.3. R-type analyses

With a non-Q audience in mind, the study was extended with R-type analyses. Quantitative techniques, such as linear regression analyses, effect size calculations, and geometric means complemented Q-methodological findings and showed similarities and differences of viewpoints expressed by study participants of various demographic attributes.

In Phase 1, statistically significant findings point to three areas with medium to large effect sizes that students deprioritise compared to workers: group work, verbal communication, and confidence.

In Phase 2, when contrasting three groups at the intersection of gender, ethnicity, and nationality (female students from mainland China, White British female students, and White British male students) two findings stood out for their statistical significance and their large effect size: a perceived lack of confidence by White British female students compared to their male counterparts, and a readiness to blame the lecturers by one segment of White British female students compared to female students from mainland China. The perception of a lack of confidence as an important barrier is linked to a perceived lack of verbal communication skills for female White British students, and to a perceived lack of analytical skills for female students from mainland China. Overall, female students especially seem to deprioritise networking opportunities and focus instead on short-term time-management issues.

In Phase 3, R-type analyses were complementary to the Q-study. At the start of the term, undergraduate students were asked to rank five curriculum areas by their perception of importance. The outcome by order of importance was knowledge, skills, experience, being, and action. At the end of the term, undergraduate students were also asked about their experience of four distinct classroom activities to improve verbal communication skills and to boost confidence. From the findings, it was clear that students differentiated between activities they found enjoyable and those that they found helpful for their future career, or to boost confidence, with the latter two closely linked. From the activities that were analysed, debates were seen as the most enjoyable activity. An assessed 3-minute pitch was perceived as the most useful exercise for future employment, and an unassessed 3-minute presentation in front of the workshop group was perceived as the most effective for boosting confidence.

5.2.3. Research conclusions and recommendations for practitioners

The proposed adapted Q-methodology study has several features that make Q-methodology both more accessible for researchers as well as more audience-focused for practitioners. These features span both data collection

and data analysis. The traditional Q-methodology data collection is based on laying cards. Technological progress now offers the possibility for online data collection and data analysis, which this study advocates.

The research is positioned within ‘critical constructivism’ rather than (post-) positivism, and, as such, I do not claim that this adapted Q-methodology study found *the* one and only truth. Instead, as outlined earlier, knowledge was generated based on ‘consensus theory’ and should be seen to contribute towards ‘theory in relation to practice’. Thus, my claim for the methodological validity is that the adapted Q-methodology study found that the majority of participating GenZ students expressed thoughts which mirrored assertions already outlined in the literature and, in particular, the prioritisation of planning, the prioritisation of knowledge transfer versus skills, and the role of gender, combined with a self-reported lack of confidence by female students.

On the first point, as part of this study, both in Phase 1 and in Phase 2, planning, time management and organisation were ranked as most important by the majority of students (60%). This finding mirrors literature that states that planning and time management and cognate self-regulated learning strategies are important factors for success (e.g. Broadbent and Poon, 2015; Dent and Koenka, 2016). Sutherland et al. (2018) also noted that the organisation of courses seems to have the highest impact on student satisfaction on the NSS. This research, therefore, confirms that students want predictability for effective planning.

On the second point, knowledge versus skills, there are three aspects that are particularly relevant. First, there is the contrast between what faculty think they provide (critical thinking) with what international students think they get (rote learning with lecturers ‘*treat[ing] books like a bible*’). Second, there is a contrast between what workers think is important and what lecturers deprioritise in their teaching (effective and constructive group work, verbal communication skills, and building of confidence). And third, there is a

coherence between lecturers and students regarding the role of IT in teaching. In contrast to current trends (e.g. Bonciu, 2017) neither group perceives it as important.

Literature suggests that there are many aspects and different social contexts that shape degree outcomes (Leman, 1999). The combination of factors in predicting degree outcomes is very complex due to substantial interactions between these factors (Strand, 2014). Yet, among the complexity, one of the key moderating factors of degree outcomes appears to be gender, with female students obtaining higher proportions of good degree outcomes (Barrow, Reilly, and Woodfield, 2009; ECU, 2008; Jones et al., 2017). This difference is despite both men and women stating that women face greater challenges during their studies and also during their careers (Woodfield, 2019). One example of contemporary challenge is that women appear more agreeable and less pushy than men, yet pay structures seem to reward pushiness (Williams, 2019b). In addition, people frequently perceive assertiveness in women as aggression (Williams, 2019b, and also faculty interviews in Phase 3). Another example of contemporary challenge is that women tend to feel less confident than men (Kay and Shipman 2014, and also student surveys in Phase 1 and Phase 2). Yet, confidence seems to matter as much as competence (Anderson et al., 2012; Kay and Shipman, 2014; Watts, 2018) with 'self-promoters' getting ahead at work despite working less than others (Armstrong, Olivier, Wilkinson, 2018; Coughlan, 2018). Phase 3 of this research project demonstrated that, as part of teaching, carefully selected verbal communication skills exercises could be seen by students as both boosting confidence and enhancing career prospects.

To explain the above points further, it is proposed to categorise findings using Durkheim's sub-groups of functionalism (Crossman, 2019):

1. **Manifest function:** the intended result – students who are getting good grades are expected to have better employment opportunities, with female students across ethnicities and nationalities

outperforming male students by getting more good degree classifications as well as higher mean average grades.

2. **Latent function:** the unintended result – more female students than male students seem to focus on getting good grades, possibly because *'they are more afraid of failure'*, and by doing so neglect networking opportunities and improving their verbal communication skills. In addition, all students across different universities and different subjects seem not to be taught enjoyable group work effectively.
3. **Dysfunction:** the harmful result – female students seem to be feeling less confident than male students. This might continue into the workplace and might contribute to the gender pay gap (this link was not researched as part of this project, see limitations later on in this chapter).

To reduce the latent function and the dysfunction, i.e. the unintended and the harmful results, it is suggested that knowledge and skills in the HE curriculum of business schools should be rebalanced. As shown in Phase 3 of this study, both faculty and students want knowledge transfer to remain the priority; however, as per Phase 3, all students, independent of gender and nationality, expressed an interest in more verbal communication skills training and opportunities for confidence boosting than is currently the case. As this view also aligns with workers' related findings in Phase 1, it is suggested that business schools increase the skills element of their curricula.

Universities and business schools which currently focus mainly on knowledge transfer might not sufficiently future proof their educational provisions and thus seem to possibly fail their current GenZ students. The adapted Q-methodology deployed as part of this research project demonstrated that distinct student segments are likely to be more affected than others by the lack of Future-proofing.

In summary, by refining relevant statements through a sequence of studies, I believe I have captured effectively, and in an innovative and accessible way, similarities and differences of viewpoints expressed by study participants of

various demographic attributes. A higher number of participants than normally recommended by Q-methodologists resulted in statistically significant results that validated initial findings. Thus, quantitative techniques have been used to validate qualitative input, with an emphasis on divergent perceptions around the level of confidence and verbal communication skills. It was suggested that knowledge and skills should be rebalanced to future proof the educational provision.

5.3. Research contributions

This study made two significant contributions. The first contribution is methodological. To improve how data can be collected and analysed. I developed and applied an adapted Q-methodology by investigating perceptions of factors affecting academic and employment outcomes of GenZ students. By keeping the first part of the research in line with traditional Q-methodology, and by then adding accessible R-type analyses, this adapted Q-methodology has allowed exploration of deeper and deeper layers. By adapting Q-methodology, the revised methodology and the emerging findings are of interest, not just for the Q-community but also to generalist educators. In addition, the adapted Q-methodology is ideal for student research training because it is a methodology that covers both quantitative and qualitative research methods, is easily replicable with well-documented instructions, and can be applied to small-scale research projects.

The second original contribution was made to functional knowledge by providing insights into the perceptions of GenZ students that advance the process of building effective curricula to address students' learning needs in preparation for their future employment. I closed a gap in the literature by contrasting the attitudinal difference around perceived barriers and enablers between GenZ students, workers, and faculty at the intersection of gender, ethnicity, and nationality. In particular, I focused on perceptions of a self-reported lack of self-confidence among female GenZ students combined with a lack of verbal communication skills training. By disseminating the findings both in writing as well as during conferences I have contributed to the

development of a post-course consciousness among lecturers, where lecturers consider it their professional responsibility to consider the students' future employment, and to ensure not only that they teach transferable skills but also that students understand the value of the transferable skills taught in their modules.

The research was multi-disciplinary, spanning the fields of education, business and management, psychology, sociology and statistics. The focal business school should be seen as microcosmic of many business schools worldwide, many of which recruit international students to generate additional tuition fee revenue.

The findings show that there is a clear student voice when considering enabling factors, while there are statistically significant differences at the intersection of gender, ethnicity, and nationality when considering barriers. Understanding this diversity is important to raise awareness for more informed and nuanced teaching practices that develop student agency. This understanding might then contribute to reducing the gender pay gap in the workplace in the years to come and thus has the potential to positively influence people's lives and society.

5.4. Limitations

As outlined in the delimitation section in the first chapter, the boundaries of this research were tightly designed to respond to the research questions and to match the narrow scope of this student-centred study. The main constraint for my work was the timeframe for conducting and completing this research project. Having to submit the thesis within five years of starting the research training did not allow me to conduct a longitudinal study.

While I aspire to provide a small contribution towards reducing the gender pay gap in the workplace in the years to come, I was unable to follow the same students through to the workplace to see the impact of verbal

communication skills and self-confidence on later employment opportunities, or to work with school pupils and then follow them through to university.

A further limitation is the lack of budget combined with the environment I work in. BS still operates in a descriptive ‘business intelligence report’ environment with static data. Without additional resources, it was impossible to move to a predictive learning-analytics-environment based on fluid, ongoing big data.

And finally, while nine participating British BME students; four female and five male students, reflects the current small British BME student population at BS, further research is needed on this student segment as one of the priorities of UK universities is to close the BME attainment gap (UUK-NUS, 2019).

5.5. Recommendations for future research

Education should be empowering and transformative by giving students and alumni the capability to change their lives in ways they choose and, at the same time, by recognising societal and environmental needs. The link between actual study experiences, including assessments, and later work experiences and attitudes, seems underexplored. It is suggested that additional longitudinal studies should be conducted to understand how students reflect, with hindsight, on their learning during their time in HE and how it has shaped their career and life experiences and attitudes.

As part of this research, findings indicate the viewpoints of students, faculty and workers as three distinct siloed groups. By deploying an adapted Brookfieldian approach, the findings were complemented with literature and an autobiographical lens. Further longitudinal research is needed to better understand causations and career trajectories of students and alumni.

As HE takes more notice of students’ learning needs and value-for-money wishes and demands, further longitudinal research using data science, e.g.

learning analytics and educational data mining, is needed to improve ways of teaching skills in HE and testing the progress of students' learning.

AI and the link of the Fourth Industrial Revolution to education in the areas of communication skills and confidence-building seem underexplored. More interdisciplinary research is needed to understand how students can learn in these areas and to develop digital coaches and mentors to help students build these soft skills, possibly embedded in content-driven learning to achieve synergy across all curricula areas: knowledge, skills, and values.

The adapted Q-methodology gives a 'scientific base' to follow the same students' perceptions over several years. This could, for example, be used to analyse levels of self-confidence throughout a person's career, as well as perceptions around knowledge, skills and attitudes. The adapted Q-methodology could be complemented with other research tools, such as cognitive frames, to understand how self-reported perceptions link to integrated or differentiated cognition. The combination of the adapted Q-methodology with cognitive frames that are produced in a task environment then allows for being able to anchor all research phases in attribution theory.

5.6. Concluding comments

Literature suggests that HE does not reduce but reproduces social inequality (Boliver, 2017; Smith, 2016) and that gendered differences between students' perceptions of their current academic selves and of their future possible selves for business are greater for university students than for high school students (Lips, 2004). In addition, certain skills and habits seem self-perpetuating (e.g. Estes and Felker, 2012, on confidence), and there is 'only limited evidence that students in their later years of study demonstrated higher skill levels when compared with students in their earlier years of study' (Williams, 2019a, p.10).

As part of this thesis, I explored whether demographic differences in the perceptions of individuals potentially produce the student attainment gap

and/or contribute to the reverse pay gap. I found that the difference might be linked to gendered soft-skills inequalities; inequalities perceived by students as relative compared to their peers. I illustrated that HE in the UK has the potential to move further away from the 'banking' concept of education where the students are focusing on planning, organising and managing their time to receive, file and store deposits (Freire [1968], 2017). An increased focus on verbal communication skills combined with boosting students' confidence across different social and business contexts and environments seems welcomed by students and represents an opportunity to disrupt the cycle. As part of this thesis I demonstrated that disrupting the cycle and achieving a student-centric education is complex and challenging. Appendix O provides further autobiographical researcher insights and a reflective metacommentary on the complexity and challenges.

As part of this thesis, I also propose a controversial Q-methodological paradigm shift. Rather than attempting to educate non-Q-methodologists who are concerned with a lack of validity and reliability of Q-methodology (Ramlo, 2016), I recommend complementing Q-methodology studies with statistical tools that provide validity and reliability in the eyes of non-Q-methodologists. Brown, Danielson, and van Exel (2015) compared researchers who doubt the validity of Q-methodology with the Medicis who disbelieved Galileo. However, Brown, Danielson, van Exel and other Q-methodologists fail to address how to get non-Q-methodologists, similar to the Medici family, to look through the telescope that Q-methodologists provide via their publications. Is it not time to consider a different strategy so that the non-Q community takes an interest in Q-methodology?

The common thread between the two aspects of my research, i.e. between genuine student-centric education and a Q-methodology research project of interest also to non-Q-methodologists, is a proposal to move towards audience-centricity.

5.7. Summary

In this concluding chapter, I first summarised the aim of my research: to investigate the perceptions of barriers and enablers impacting academic achievement and employment outcomes of GenZ students. I explained that I adopted Q-methodology, a mixed-methods study that aims to evaluate subjective viewpoints objectively. I demonstrated how throughout my research, I engaged students as co-creators of their learning experience and contrasted their perceptions with those of employees of the non-HE workforce and faculty. The initial Q-methodology study showed a student-focus on planning, time management and organisation. The initial Q-methodology study also offered the opportunity to establish different student profiles, both overall and at the intersection of gender, ethnicity, and nationality. By focusing on distinguishing statements, the study was extended with R-type analyses. Quantitative techniques such as linear regression analyses, effect size calculations, and geometric means validated qualitative input. Statistically significant findings pointed to a self-reported lack of confidence amongst female White British and female students from China, partly linked to a perceived lack of verbal communication skills. Students, independent of gender, ethnicity or nationality, reported a lack of understanding of the concept of ‘critical thinking’ and how their education still focuses on having to learn facts by heart, while faculty believes that they have moved on from the traditional system of education.

This thesis made tangible suggestions for change; rebalancing knowledge and skills, and embedding, for example, verbal communication skills, by introducing roleplays to simulate different business contexts. This idea seems welcomed by students; however, changing the mindset of faculty appears more complex. It is suggested that by keeping the first part of each research phase in line with traditional Q-methodology and by then adding accessible R-type analyses, it was possible to reveal results that aim to raise awareness for more audience-centric teaching and research practices across Q and non-Q communities.

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Appendices

Appendix A: Mean average and share of 1st and ‘good’ degrees (1st and 2:1)

UG Finalists		2019					2018					2017					2016				
Country	Gender	Mean	1st	Good	Count	Mean	1st	Good	Count	Mean	1st	Good	Count	Mean	1st	Good	Count				
All	F	62	25%	61%	300	62	26%	68%	249	60	16%	58%	218	61	14%	59%	187				
All	M	60	16%	52%	325	60	12%	58%	272	59	14%	55%	243	58	5%	52%	208				
All	All	61	20%	56%	625	61	18%	62%	543	60	15%	56%	461	59	9%	56%	395				
UK	F	68	50%	86%	86	67	51%	95%	77	66	37%	86%	63	67	46%	89%	37				
UK	M	65	31%	80%	109	66	36%	90%	80	66	37%	81%	70	63	12%	80%	60				
UK	All	66	39%	83%	195	67	43%	92%	157	66	37%	83%	133	64	25%	84%	97				
EU	F	65	35%	78%	23	65	41%	88%	17	64	14%	79%	14	66	36%	100%	11				
EU	M	62	19%	44%	16	61	7%	64%	14	62	27%	73%	11	64	33%	67%	6				
EU	All	64	28%	64%	39	63	26%	77%	31	63	20%	76%	25	65	35%	88%	17				
International	F	59	12%	48%	190	60	12%	52%	155	57	7%	44%	141	58	3%	48%	138				
International	M	57	7%	38%	200	58	1%	44%	178	56	4%	42%	162	56	1%	40%	142				
International	All	58	9%	43%	390	59	6%	48%	333	56	5%	43%	303	57	2%	44%	280				
China	F	57	5%	36%	147	59	9%	47%	117	56	4%	38%	112	58	3%	44%	104				
China	M	56	3%	33%	126	57	0%	39%	110	54	0%	33%	91	55	1%	35%	98				
China	All	57	4%	34%	273	58	4%	43%	227	55	2%	36%	203	57	2%	40%	202				

Source: BS transcripts

Appendix B: Composite Q-sort Factor 1, Z-scores for Factors 1 to 7 (Phase 1)

Factor		1	2	3	4	5	6	7	Total
<i>Number of participants loading on each factor</i>	<i>Composite</i>	33	5	6	4	6	4	2	60
<i>Explained Variance</i>	<i>Q-sort for</i>	21.03	6.88	6.87	6.26	6.14	5.18	3.41	55.77%
<i>Eigenvalue</i>	<i>factor 1</i>	17	6	6	5	5	4	3	
<i>Least important statement</i>	<i>(with 33</i>	29	45	13	43	29	40	11	
<i>Most important statement</i>	<i>participants</i>	2	10	34	8	5	46	9	<i>Statement</i>
<i>Statement</i>	<i>fsc_f1</i>	<i>zsc_f1</i>	<i>zsc_f2</i>	<i>zsc_f3</i>	<i>zsc_f4</i>	<i>zsc_f5</i>	<i>zsc_f6</i>	<i>zsc_f7</i>	<i>code</i>
Excellent time management, being organised and planning ahead	-4	-2.49	-1.49	-0.71	-1.04	-1.19	-0.66	-1.92	2
Having a good work ethic, revising for a substantial amount of time	-3	-1.76	-1.05	-0.34	-0.78	-2.05	-0.70	-1.33	4
Having good or excellent teachers / lecturers / tutors	-3	-1.70	-1.50	0.67	-1.92	-0.68	-0.53	1.58	18
Having ambition for a high overall degree result	-3	-1.63	-2.32	-0.97	0.80	0.64	-1.84	1.75	10
Attending classes, and listening / being on task during lectures and seminars	-2	-1.09	0.59	0.51	0.27	1.41	-0.49	-0.17	36
Being analytical	-2	-1.01	0.37	-1.23	-2.16	0.42	0.51	1.08	8
Taking notes during classes and/or summarising topics after classes	-2	-0.94	0.05	0.44	-0.08	-0.60	1.26	0.67	31
Receiving individual support from teachers / lecturers / tutors	-2	-0.94	-0.38	0.41	-0.17	-0.63	-0.45	1.50	19
Being able to choose options / having modules that match my interest	-2	-0.93	0.50	-1.31	-0.32	-0.49	1.12	0.50	22
Being proactive, learning things without being asked	-2	-0.84	-0.78	-0.60	0.13	-2.28	0.09	-0.42	5
Being in vibrant classrooms where students participate and can learn from fellow students in the classroom	-1	-0.74	-0.32	0.72	0.20	-0.51	0.14	0.83	15
Having excellent resources & facilities, e.g. library	-1	-0.73	0.05	0.22	-1.73	0.77	-0.55	0.91	20
Asking for help when needed	-1	-0.51	-0.01	0.32	0.95	-0.02	0.10	-1.00	37
Being decisive and working quickly	-1	-0.44	-0.99	-1.70	-1.41	-0.57	-0.28	-1.58	3
Interested in topics which encourages own research / self-study (not set by tutor)	-1	-0.36	-0.42	-0.24	0.09	-0.72	-0.15	0.91	24
Fluency and eloquence in English (writing)	-1	-0.35	-0.50	-1.00	-1.17	-0.07	-1.22	-1.08	28
Having excellent peer support / students helping each other independent of friendships	-1	-0.32	-0.17	-0.02	0.68	0.27	0.34	-0.42	33
Being an active participant in the classroom myself	-1	-0.32	0.83	0.50	-0.42	0.59	-0.03	1.00	16
Having likeminded close friends who also want to succeed	0	-0.27	0.38	1.23	1.16	1.07	-0.01	1.33	12
Relevant case studies (learning from practical examples of others I do not know)	0	-0.22	-1.33	-0.10	-0.06	-0.63	0.92	-0.25	35
Being logical	0	-0.20	0.76	-1.83	-1.07	-0.40	0.90	0.42	7
Being intelligent. Things seem easier for me than for others	0	-0.16	-0.06	-2.40	-0.54	1.38	-0.04	0.67	34
Being continuously challenged and/or being in a competitive environment	0	-0.07	-0.85	-1.14	0.85	0.31	0.93	-0.25	32
Fluency and eloquence in English (speaking)	0	-0.03	0.17	-0.24	-1.68	-1.28	-1.07	-0.83	27
Interesting and relevant core readings & unassessed homework (set by tutor)	0	-0.01	-1.24	0.04	0.42	-0.96	-0.76	0.25	23
Having ambition for an interesting job which might allow me to better my current life	0	0.02	0.18	-1.02	0.46	-1.06	-1.54	1.83	11
Having parents / family who are supportive of my studies	0	0.08	-1.27	-0.38	-0.37	-0.49	1.16	-0.17	39
Being confident	0	0.11	-1.43	-1.59	-2.01	-0.94	0.66	0.75	6
Previous education	1	0.14	0.39	0.03	-0.39	-0.13	0.28	-0.83	38
Having hard-working role models (family members, friends, celebrities)	1	0.16	0.72	0.53	1.39	-0.14	1.22	0.42	41
I could achieve better grades if I were not focussed on finding a job for after graduation	1	0.37	1.25	0.12	1.14	0.32	-1.23	-1.75	47
Technology in the classroom	1	0.58	-0.89	1.27	-0.08	-1.43	0.57	-0.67	14
Having pastoral care / non-academic support when needed	1	0.75	-0.33	1.32	-0.71	0.45	-0.89	-0.50	26
Having completed a work experience / study abroad year / summer school	1	0.81	1.42	-0.24	-0.46	0.19	1.07	0.59	17
I could achieve better grades if I did not have stress outside studies, e.g. moving house, changing relationships	1	0.86	2.26	1.38	1.59	1.11	-1.22	-0.91	45
I could achieve better grades if I were not spending so much time on social media / computer games / internet etc.	2	0.88	0.64	-1.20	0.82	0.63	0.25	0.42	42
I could achieve better grades if I did not spend so much time on having to earn money to finance my studies	2	1.01	1.81	0.65	1.05	1.31	-2.02	-0.91	46
Being assessed based on group work	2	1.03	-1.16	1.32	-0.18	-1.32	0.40	0.50	21
Having parents / family with connections, e.g. to organise work placements / find employment	2	1.13	1.73	0.90	1.32	1.25	2.32	0.75	40
I could achieve better grades if I were not spending so much time on socialising / drinking / night life	2	1.36	0.87	-0.67	1.83	1.16	-0.70	-0.33	43
Being a member of a society or club at university	2	1.46	-0.55	1.97	0.66	0.81	0.51	0.67	13
Ethnicity, including lifestyle and culture (my ethnic background helps me to achieve good grades)	3	1.49	0.47	0.83	-0.17	1.19	1.84	-0.42	30
Having luck	3	1.54	-0.56	1.02	0.70	0.61	-0.11	-2.00	9
I could achieve better grades if I did not need to focus on appearances / looking good / trying to find a partner	3	1.95	0.49	1.40	1.18	-0.09	-1.88	1.17	44
Gender (it is easier for me to achieve good results because of my gender)	4	2.14	0.81	1.23	0.00	2.70	1.78	-1.08	29

Appendix C: Automatic flagging of participants (Phase 1)

Students

Non-HE
Workforce

Participants per Factor	flag_f1	flag_f2	flag_f3	flag_f4	flag_f5	flag_f6	flag_f7	No flag (i.e. dissimilar)
AA	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	
AB	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
AC	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
AD	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
AE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
AF	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	
AG	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
AH	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
AI	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
AJ	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
AK	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
AL	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BA	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BB	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BC	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	
BD	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	
BE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
BF	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BG	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
BH	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BI	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BJ	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BK	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	
BL	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BM	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BN	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BO	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BP	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
BQ	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	
BR	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
CA	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	
CB	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
CC	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
CD	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
CE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	
CF	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
CG	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
CH	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
CI	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	
CJ	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
CK	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
CL	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	
CM	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DA	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DB	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DC	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	
DD	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DF	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DG	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DH	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DI	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
DJ	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
DK	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	
EA	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
XA	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XB	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	
XC	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XD	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	
XE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	
XF	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	
XG	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	
XH	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XI	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XJ	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	
XK	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	
XL	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	
XM	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XN	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	
XO	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	
XP	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XQ	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
XR	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
YA	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	
YB	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
YC	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
YD	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
YE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	X
YF	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	
YG	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	
YH	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	
YI	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	

Appendix D: Semi-structured questionnaire example (Phase 1)



PARTICIPANT INFORMATION SHEET

This research by Isabel Fischer investigates the gender gap in undergraduate academic and future career performance, linked to nationality and ethnicity differences.

Background

The findings of this study will inform a thesis in part fulfilment of a doctorate in education by the researcher.

The purpose of this study is to compare the perceptions of British and Chinese Business students in terms of gender differences in undergraduate academic performance and the reasons provided for these differences. Students and lecturers will be surveyed to review possible linkages between perceptions and outcomes of teaching and learning.

Procedures

You will be asked to complete a questionnaire and an online implicit association test (IAT). The researcher might additionally refer back to your past assessments and degree result to ensure the sample is representative and to position the findings. Your responses and IAT are part of an iterative process and might therefore inform not just the overall result but also the next research process.

Feedback

Should you be interested in receiving feedback related to the findings of the research, please include your email address on the consent form. Provided you include on the consent form your email address, you will receive an email with aggregate findings.

Confidentiality

All data and personal information will be stored securely on the researcher's password protected laptop which is locked in a room overnight and within the Canterbury Christ Church University premises in accordance with the Data Protection Act 1998 and the University's own data protection requirements. For the computation of results and any reporting or publication, all data will be made anonymous. Alphanumeric coding will link your responses in the questionnaire and the focus groups. Once the study has been completed, all personal information associated with the data will be removed.

Deciding whether to participate

If you have any questions or concerns about the nature, procedures or requirements for participation, please do not hesitate to contact me. Should you decide to participate, you will be free to withdraw at any time without having to give a reason.

Any questions?

Please contact Isabel Fischer on if34@canterbury.ac.uk



CONSENT FORM

Title of Project: A study of nationality and ethnicity differences in the gender gap in undergraduate academic and career performance

Name of Researcher: Isabel Fischer
Address:
Tel:
Email:

Please initial box

- 1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
- 3. I understand that any personal information that I provide to the researchers will be kept strictly confidential
- 4. I agree to take part in the above study.

Name of Participant *Date* *Signature*

Isabel Fischer

Researcher & person taking consent *Date* *Signature*

For the alphanumeric coding which links your responses in the questionnaires and the focus groups you are allocated this number: _____1_____

To receive summary findings and to be sent a link to an online questionnaire for the next part of this research, please provide your email address – the one you will be using in the forthcoming year – here:

Email _____

Copies: 1 for participant
1 for researcher

Data Sheet

Unique Identifier / Alphanumerical Coding: 1

Gender: *Female*

Nationality: *British*

Ethnicity: *White British*

(For current BS students only) Year Group: *Just finished BSc*

(For current BS students only) Course: *Business & Management with a professional placement year*

Number of siblings: 3

Are you the oldest sibling with at least one younger brother/sister? *One older brother, one older sister and one younger brother*

Has your mother been in full-time employment for the majority of time in the last 10 years? *Yes*

If you are in your final year at university, plans for the next year (e.g. further study/work/travel): *Work*

Do your (current) plans for next year represent your first choice? *Yes*

If you have gained employment, how long ago did you gain it and via which channel? *August 2016 after my placement year offer with Accenture*

In the past 6 months (or in the 6 months before getting your job), how many hours did you spend approx. per week on searching for jobs? *15 hours a week for my placement*

In the past 6 months (or 6 months before getting your job), how many applications did you write? *8 applications*

In the past 6 months (or 6 months before getting your job), how many interviews did you have? *Offered 6, took part in 3*

Questionnaire

Please answer the following questions by writing down the things that come to your mind, including factors both from your learning experience at university as well as from your broader family environment, upbringing and/or friendships. Once you have written down the answers please add in brackets the ranking by importance: Add a 10 if you consider the point you have listed as very important and a 1 if you think the point you have listed is not that important. Use a sliding scale in between, the higher the number = the more important the point you list (10 max). Should you not add any number we consider the points you list as equal.

1. What are/were the objectives you have/had for your studies?
 - *To get high grade to give me the best job opportunities (10)*
 - *To do a placement year (10)*
 - *To learn as much practical experience as possible (9)*
 - *To meet like-minded people (9/0)*

2. What are/were the factors that helped you succeed?
 - *Work ethic (10)*
 - *Time management (10)*
 - *Likeminded friends (8)*
 - *Tutors (7)*
 - *Family Support – first one to go to university so I had a very supportive network (7)*

3. What are/were the factors that hindered you?
 - *Little student participation in seminars (6)*
 - *Group work massively hindered unless we could choose like-minded people (8)*

4. What do you think are/were the most beneficial parts / elements of your studies?
 - *Placement Year – this improved my grades dramatically and increased self-confidence (10)*
 - *Seminars were the best way to understand the course material (8)*
 - *Personal interaction with tutors especially in fourth year were practically beneficial to clarify understanding (8)*
 - *Particular modules most applicable to the outside world like project management, accounting, BSR and Strategy (9)*

5. What do you think are/were the least beneficial parts / elements of your studies?
 - *The amount of assessments we had to do I think placed unnecessary pressure (7)*
 - *The business department should have a better business society (6)*

- *Weekly readings often lacked clarity and relevance was often questioned (7)*
 - *Lectures that simply went through PowerPoint slides – very disengaging (9)*
6. What do you think are the factors that could make male students get higher grades than female students? (Explain if this is for male students generally, or for specific nationalities/ethnicities)
- *Any male that has participated in a placement year would have greater chance to get higher grades than a female that did not take one (10).*
 - *Confidence to participate in class more (usually British ethnicity) (9)*
7. What do you think are the factors that could make female students get higher grades than male students? (Explain if this is for female students generally or for certain nationalities/ethnicities)
- *Placement Year (10)*
 - *Work Ethic (8)*
 - *More open about mental health and other issues (8)*
 - *More likely to go over topics more to ensure they understand it because of lower confidence in ability (7)*
 - *More willing to participate in class (British) (8)*
8. What do you think are the factors that hinder female students from achieving higher grades? (Please state if this is for all female students or applicable to certain nationalities/ethnicities)
- *Low Confidence (8)*
 - *Group work because of language barriers hindering all nationalities (9)*
 - *Nationality divide particularly hindering Chinese students but also slowing British students etc in their progress in classes. For example, rather simple material would be repeated because of Chinese students not understanding yet did not have the confidence to ask more questions or participate to enhance their understand. (10)*
9. What do you think are the factors that hinder male students from achieving higher grades? (Please state if this is for all male students or applicable to certain nationalities/ethnicities)
- *Time management and work ethic (7)*
10. Who do you think has the higher overall degree outcome out of men vs women and do you think this is similar for every ethnicity/nationality (explain why / why not)?
- *Females as it is stereotyped they put in more effort.*

11. How many hours on average did you study per day outside teaching time? And also, when you had a difficult topic, how did you deal with it (e.g. spend more time reading on the topic; speak to fellow students; contact the tutor; ignore the difficulty & relax while hoping to get by for the assessment, etc.)?

- *7-8 Hours, this increased around exams. When something was difficult I spent more time reading around the topic and then clarified my new knowledge with tutors. I found talking to other students often confusing.*

12. What are the objectives you have for your future (work and life more generally)?

- *Progress to a high level in my career and learn many new skills*
- *Be happy and have a family with as much work life balance as possible*
- *Travel and see the world*

13. If you had to choose between a demanding & interesting career or family life (and you could not combine these) what would you choose, career or family life?

- *Family Life*

14. In line with question 13, what do you think 'others' would choose?

Chinese Female: *Family*

British White Female:

Family

Chinese Male: *Career*

British White Male:

Career

15. Identify within the following pairs which of the two has a higher impact on academic achievement according to your personal opinion.

This is about which factors have an impact on the academic

achievement overall, independent of positive or negative impact. **State the factor that you consider as having a higher impact on academic achievement.**

a) Nationality vs Ethnicity (based on no difference of language skills):

Nationality massively negatively affects grades as most noted in group work where many Chinese students could barely speak English.

Massively disadvantages them and anyone who works with them. It is known that this puts a lot of people coming off to such a diverse university.

b) Gender vs Ethnicity (based on no difference of language skills):

I don't think either massively make a difference but if you were to stereotype gender may impact this.

c) Gender vs Nationality / level of English (implying that students from different nationalities do not necessarily have English as a first

language): *Not having English as a first language as I mentioned in question A is a hindering negative factor.*

d) Social class of parents vs Gender (based on no difference of language skills): *I don't think either make that much of a difference/ I have not witnessed a difference.*

e) Social class of parents vs Ethnicity (based on no difference of language skills): *I don't think either make that much of a difference/ I have not witnessed a difference.*

f) Social class of parents vs Nationality / level of English (implying that students from different nationalities do not necessarily have English as a first language): *Nationality as not having English as a first language often creates a divide.*

16. If there had been an optional module in the final year with a focus on career planning, including a review of the job market across different countries & sectors and an analysis of the different application processes and interview techniques, would you have taken it? *Yes that would have been very helpful but instead of it being a module I think it should have been put as a voluntary workshop.*

17. Is there anything else you could like to mention in the context of Academic achievement, Career planning, Gender, Ethnicities and/or Nationalities? (Can be left blank)
I don't see a massive gender gap or divide in terms of academic achievement, I do see though a massive nationality divide with Chinese students as they very rarely take part. It can often be very frustrating in seminars when they do not even answer a question or talk back to you, let alone group work with people who can't write or speak in English.

Implicit Association Test (IAT): Gender - Career

Please take the following gender-career IAT (implicit association test). In the beginning you will need to press several times 'decline to answer' to get to the actual test – please do not waste your time in answering the initial questions until you get to the actual test that you will recognise as needing to type 'E' versus 'I':

<https://implicit.harvard.edu/implicit/takeatest.html>

Following 'I wish to proceed' choose Gender-Career and then 'decline to answer' until there is no further 'decline to answer option' and they typing of 'E' versus 'I' starts. After completion of the test **please copy (or type) your result here** (Your result is likely to start like this: *'Here is your result: Your data suggest a...'*): Your data suggest a slight automatic association for Male with Family and Female with Career.

Appendix E: Initial concourse (Phase 1)

1. Previous schooling / pre-BS grades / good attitude to learning prior to starting uni (positive)
2. Previous schooling / pre-BS grades / learning attitudes as a hindrance (negative)
3. Being the oldest or only sibling
4. Having both parents who work hard / leading by example
5. Have parents who are hands-on supportive of the student's study, e.g. proof-read documents
6. Have parents who have studied and value academia
7. Having parents / society who put pressure on students to succeed
8. Having parents with connections to organise work placements / find employment
9. Having parents who are sufficiently well off to financially support their child/children through university (positive)
10. Having parents who are very affluent / rich which does not require students to work in the future (negative)
11. Join societies / clubs at uni
12. Classroom participation
13. Spending too much time on finding a job / working during studies (negative)
14. Spending too much time on finding a job / career for after graduation (negative)
15. Spending too much time socialising / night life / drinking (negative)
16. Spending too much time on computer games / internet / films (negative)
17. Having ambition for excellent grades / high degree
18. Having ambition for a challenging and interesting job

19. Do/did a sandwich year (placement or study abroad)
20. Gain experience through part-time work / summer jobs
21. Need to earn money / work too long be able to afford being at uni (negative impact)
22. Excellent time management, e.g. planning ahead, no last-minute assignments/revisions
23. Be dedicated and intensive study / good work ethic
24. Have likeminded friends who also want to succeed
25. Have too many friends who do not want to work hard (negative)
26. Have excellent teachers / lecturers / tutors
27. Receive 1:1 support from teachers / lecturers / tutors during office hours / after class / forum / email responses
28. Have excellent resources & facilities (study direct, library)
29. Have assessed group work (positive)
30. Have too much assessed group work (negative)
31. Your own participation / speaking out in seminars / lectures
32. Be in seminars / lectures where many students participate
33. Have more seminars (rather than lectures)
34. Have more lectures (rather than seminars)
35. Be able to choose options / have modules that match your interest
36. Too many assessments (negative)
37. For assessments: Have as many exams as possible
38. For assessments: Have as many essays/reports as coursework as possible
39. For assessments: Have as many orals / presentations as possible
40. Having a role model to aspire to

41. Interesting and relevant core readings / unassessed homework
42. Too many core readings / unassessed homework (negative)
43. Lack of confidence (negative)
44. Self-belief / confidence (positive)
45. Over confident (negative)
46. Excellent Student Life Centre support when needed
47. Seeing uni as a means to an end (good career), not as an end in itself
48. Speaking English as a first language / have a better command of English (in an English-speaking country)
49. Studying in an English-speaking country with too many non-native-English speakers
50. Gender, i.e. being female if you are female or male if you are male (positive impact)
51. Gender, i.e. being female if you are female or male if you are male (negative)
52. Ethnicity (incl. lifestyle, culture) – positive
53. Ethnicity (incl. lifestyle, culture) – negative
54. Taking notes during classes and/or summarising topics after classes
55. Being organised
56. Procrastination / delaying tasks (negative)
57. Learning too many unnecessary things (negative)
58. Being able to bring in a wealth of knowledge (positive)
59. Feeling lonely, which could but does not need to be linked to home sickness
60. Luck
61. Knowing that students are in charge of their own destiny
62. Doubting that students are in charge of their own destiny (negative)

63. Peer pressure / societal pressure to focus on appearances / looking good (negative)
64. Peer pressure / societal pressure to do well (positive)
65. Competition / competitive mindset (positive)
66. Study skills
67. See uni as a way for self-development / learning transferable skills
68. Stress outside studies, e.g. moving house, finding / leaving / being left by partner (negative)
69. Poorly designed course (negative)
70. Understanding the relevance of the course material
71. Defeatist attitude – knowing that it's unlikely that you will gain a good degree (negative)
72. Learning skills that are applicable to many areas
73. Gaining knowledge
74. Observing / learning from peers
75. Case studies / learning from other's experiences
76. Learning style, e.g. Rote learning – repetition (positive)
77. Learning style, e.g. Surface learning (negative)
78. Being decisive and working quickly (positive)
79. Being proactive / learning things without being asked
80. Good attention to detail
81. Being of the opinion that it is important to just pass, achieving a high mark is not important (negative)
82. Having a bigger goal than studying: Thinking and working on own entrepreneurial idea / planning ahead (negative)
83. Team work (outside teaching time) / peer support network

84. Own research / self-study
85. Logical and analytical thinking
86. Learn from negative experiences from others
87. Learn from positive experiences / knowledge of others
88. Listening during lesson times / being on task
89. Working on too many things at once, not knowing on what to focus (negative)
90. Not asking for help (negative)
91. Having teaching times too early or too late in the day
92. Anxiety / scared of failure (negative)
93. Having decided that 'business is not for you' (wrong career path)
94. Intrinsic motivation (wanting to learn)
95. Extrinsic motivation linked to getting a good degree which leads to a good job
96. Not knowing where to get help from (negative)
97. Specific learning approaches (e.g. flipped classroom)
98. Attending lessons and paying attention during lessons

Appendix F: Example of a qualitative end of survey comment (Phase 1)

Illustrative example of an additional comment in the Q-methodology survey in Phase 1: 39 participants (out of 84) provided additional comments in Phase 1.

I think putting in work and natural ability are the two most important factors to getting grades, following that, doing work that is efficient/targeted by understanding how that work will lead to the improvement of grades (e.g. knowing the format, marking criteria, not studying excess topics etc) will make the time spent to [go] further. I think there is an ethnic gradient in grade attainment though this is watered down to an extent by the selectiveness of the university. At my university Indian and Chinese students seem to fair [sic] better than white British students and other ethnic minority students seem to perform worse. I'd say this is much less likely to be due to culture but instead due to the level of their parents' education and material position being worse off, though for the case of Indian and Chinese students there does seem to be a greater focus on hard work and obedience that may be cultural, but this isn't so pronounced because students are already selected based on these qualities in more selective universities. Racism still exists in unis at both student and teacher level but given the increasing diversity of students and teachers and the awareness/anti-racism in unis, I would hesitantly say that discrimination against ethnic students is decreasingly a factor inhibiting success since racist teachers are increasingly vulnerable to complaint rather than it being hush hushed and there seems to be more pastoral options and a wider breadth of societies based on ethnicities for persecuted minority students, though I would say that discrimination is in no way a non-factor yet, but it seems to be tending in the right direction (though this is very easy to say when not a minority student, so would defer to their opinion but this may be one of the points of the survey). Women and men seem to score similarly but men's scores seem to have a higher standard deviation, making up a larger portion of firsts and thirds/fails. This may be due to the confidence/risk averseness factor whereby greater risks may result in greater distance from the mean. This risk trait is probably conditioned rather than biological.

Appendix G: Transcripts of student focus groups (Phase 2)

Transcript of focus group with students from Asia

3 students were from HK, one from Myanmar and one from China, 3 students were female and 2 (coded as 4 and 5) were male.

IF read out focus group guidelines and received the consent forms from the participants.

IF: You can choose whether or not to participate in the focus group and stop at any time

There are no right or wrong answers to the focus group questions

We ask that only one individual speak at a time in the group

Be honest even when your responses may not be in agreement with the rest of the group

It is safe for you to freely express your opinions without consequence

Participants have the right to challenge, criticise and/or disagree during the decision/discussion in a respectful manner

IF followed on: Now that your studies are over and you reflect on your studies, what should we have done different?

1: I had no clear expectations when coming to BS. That's why I chose abroad topic: Business & Management. Business and Management should have less artistic options which are not relevant for international students, for example Philosophy, English literature or American Pop music. I really like Maths and I now go on to a Banking and Finance Master. It would have been good to have more finance modules. This will increase the chances to find a job and will also give confidence in then joining other options, like entrepreneurship afterwards.

2: Yes, in Marketing, we do not get any teaching in Finance. I really have no idea how to evaluate companies. There was some Introduction to Accounting in by my course but not enough Finance. It's a business school and the school should be able to provide more of this type of courses. Honestly, I have no idea what Finance is all about. A friend told me it's about company evaluations. It's a bit unfair for us that we now don't have that knowledge. For some of the modules in the final year, like New Venture, it's really unfair for the Marketing students because of the financial part. We have to learn from the internet, like google. There is no basic foundation for us. It's unfair

for Marketing students. Maybe the uni can provide more help and offer additional lectures in addition to the main course. Finance skills will help us to find employment.

IF: Talking of employability – why would most students not go to employments events?

Laughter by all

Most international students wouldn't want to go because most companies do not offer a visa for international students. Home students go.

3: And I often do not know about the events early enough. It's more afterwards that I read about it. It's not transparent enough for students to know about it.

IF: But we do send emails

3: Most students do not check their emails.

IF: Shall we use wechat instead

3: No. You need to get students to actually check their emails. This is how the business world works.

2: It's maybe not attractive enough.

3: If I'd go to events by my own self, I would be worried about it. Local students have a higher chance of winning competitions because they can present it better in English.

(Should we have different competitions for home students rather than international students?)

3: No. That would label students. University is a place to prep you for society. We need more practical practice. For example, like internships. Our career hub only helps you with your CV. At BS there a not enough connections with alumni.

4: Yes, it's very difficult to find an internship in the UK.

2: You should provide students with opportunities to do projects for real companies.

3: A tour in the company is already good and follow a senior.

2: Practice is more important, than learning the knowledge.

3: At fairs companies do not want to talk to international students because they want to find future employees, while international students just want to ask general questions

3: Coming back to another topic: Teachers and academic advisors should speak more 1:1 to motivate students to set goals and then check on these. Academic Advisors do not reply to emails so it's not possible to make appointments or ask questions.

4: Yes, there is a problem with Academic Advisors

5: There should be specific times to meet Academic Advisors for example Thursdays at 5pm

IF: But we do try, for example I invite my students regularly and only few turn up. E.g. one of the students was my academic advisee in the first two years and said that she never received an email from me, yet I know that I do send them via BS' Direct distribution and that some students did turn up. Do you get too many emails?

1: Maybe we do not know in the first two years how important it is to know your academic advisors until we need their references in the third year.

2: Offer for all academic advisors to be in the lecture hall at the same time so that students can find their academic advisor, or also dissertation supervisors. It is difficult for international students to understand people's names so it takes time to know actually the name of your academic advisor, supervisors or lectures and know that it's important to open their emails.

IF: What about emails from the BS Student Experience Team?

2: Emails from central emails are read even less [frequently].

IF: Is there a difference between what we said between male and female students?

5: We focus more on the other things, like games. I get notifications for new games and then I try it out and then forget about time.

1: I know a lot of people who are more intelligent. That's why I am lacking confidence. I know that I am not intelligent. It's not because of my gender. I know from my experience that other people are more intelligent.

IF: Does confidence come with gender?

All responding adamantly: No.

2: It's about personality. International students hate it when lectures say 'it's OK' (all laugh and agree with the point which is not really made clear to me yet. They all have little words to add 'good' 'great' – it clearly shows some common understanding of international students, not split by gender but jointly 'against' local lecturers who have too little expectations of Asian students). It's different from Asian teachers cause Asian teachers will tell you this part you need to improve and this part you didn't do well. Here teachers will say 'everything looks good, great' but at the end I didn't get what I expected (all laugh and agree).

1: English culture is all positive but you don't mean it

All laugh and agree

4: Lecturer X said last term to me all the time 'excellent, no problem' and then I only got 28%.

2: It's about the expectations. My supervisor said: Well done. You can submit it. But I know he means it's good enough to pass. But I want to get 80% or 90%. Our Asian motivation comes from punishment.

(All agree)

2: My mum always used to say you are not good enough. Other daughters get better marks than you. And you are in the same class. Why can't you get a better mark?

(All agree)

1: Yes, we are not fake.

4: We need specific feedback from our tutors.

5: Yes

3: Negative feedback is helpful, rather than saying 'good enough, good enough'

IF: Can parents' criticism, wear you down and break your confidence?

4: Yes, I saw that.

5: But the tutor can say things negatively without affecting the person. Instead of saying 'why did *you* do this', it's about explaining things – 'you should revise this or that'. And not punish

2: I didn't mean punish as such I meant 'tell us what we can do better'. Too many lecturer just give you the marking criteria. For example, 60+ I expect this, 70+ I expect that. But this is just general instruction. Sometimes they then give one specific advice, like 'you need to provide more evidence' and then we focus on just that one and it is not sufficient

IF: Is English as an additional language a problem?

2: English should not be an issue it's more a lack of business knowledge that might be an issue. And the critical thinking.

3: Some Chinese students do not understand English well enough and are revising in Mandarin and take notes in Mandarin and might need more encouragement to always try to write in English. Also perhaps some male Chinese students are less keen on grades and ask less for advice in improving their English.

IF: Is it more the language or playing games on the computer?

5: Perhaps we lack some focus. We can focus on things but if it's boring, we cannot focus. We don't like memorising things. We like practical things.

4: It takes me a long time to remember knowledge because I feel it is so boring.

IF: What about creating a company – e.g. for CSR what are the ethical issues that arise?

2: I wouldn't be that interested

1: Me neither. I feel I will never have a brilliant idea

3: Yes, I think I am better with the actual work and let guys come up with the ideas

IF: Coming back to boring what can lecturers do so that lectures are more interesting?

5: A good tutor is more active and walks around and it's good when tutors are moving their hands. It is more interesting. Some tutors just sit there.

IF: Can I check that hand movement is good?

2: Hand movements are OK

3: Guest lectures need to relate their topics to my studies

IF: What about lectures helping with planning and time management?

All – No issue

1: Planning and time management is a personal issue and everybody should do their own personal planning, some work well close to the deadline others need to work ahead of time.

All - Yes

3: Maybe Academic Advisor can provide suggestions and guide you. Maybe they could ask you about your strengths and weaknesses and give some help.

IF: Is it students' or lecturers' responsibility?

3: It's half half. Some lecturers treat books like a bible. Online search is sometimes more interesting than just having to read a book especially when the slides are also extracts of books.

IF: Other points?

1: Please don't change Academic Advisors half way through.

2: I don't like small group discussions I think in that case the lecture goes from one group to another and we don't hear what they say to individuals. I prefer discussions with the entire class that way that the whole class can learn from everybody. Maybe it would be nice to be able to change seminars based on learning styles. I know in which environment and teaching style I can learn more.

IF: What can we do to get more students to speak?

3: I think it's the culture. Asians are afraid of speaking. In Asian cultures the teachers speak and don't ask and do not encourage you to give your opinion. We are afraid that you are talking about A but we are talking about B.

IF: But what could I do specifically if I wanted to get more students to speak?

1: You need to force us. Give numbers on tables and then call out a table number to answer the question. And they then have to call out a different number.

2: When tutors know somebody well, they use to ask the students they know. It's quite fun. It makes us stay awake.

IF: I used to have names on wooden ice lollypop sticks and then students could pick a person to answer

2: That's exciting

All agree and comment

IF: This works better for workshops than lectures. Do you prefer workshops or lectures?

1: It depends. It depends on the module but for CSR it is good to be able to apply what you just learned

2: For CSR the wait between lectures and workshops was too long. I think it is good to be able apply practical examples of the theories you just learnt. Showing short videos is also good. PowerPoint slides are important. It's important to make the PowerPoint slides helpful for the revision and lecturer should do more than just copying books into slides.

3: Hyperlinks are also important.

2: The Cadbury case (CSR) link didn't work. It worked first but not in May.

4: I think in our school the marking scheme is so much higher than other universities. At other top 30 schools 80% of students get 1st or 2:1s. In our school it is less than 80%. It is really harmful for us to apply for a Master.

2: For the first job in Hong Kong it is very important to have a good grade especially if you come from an average university. When you come from Oxford, Cambridge, UCL or King's it doesn't matter.

[This was followed by a discussion between students if King's business school should be on the list of top ranked unis / schools]

IF: What about individual verbal communication skills are they not more important than university rankings?

2: Students from Hong Kong do not need to practice more communication skills. We do it a lot in school.

1: Perhaps make the presentations more formal. Students need to present at least one time more formally

[Some disagreement by others, only area of disagreement of focus group].

4: [Student then started to talk about his personal unfair marking]

IF: Is marking fair overall?

General agreement. And then students talked about the CSR assignments and the merits of 2 long questions versus 3 long questions in 2 hours ending with a general consensus that 1 long question and 2 medium questions seemed best for the focus group participants.

Transcript of focus group with home students

A1 was female, the other three participants were male.

IF read out focus group guidelines and received the consent forms from the participants.

IF You can choose whether or not to participate in the focus group and stop at any time

There are no right or wrong answers to the focus group questions

We ask that only one individual speak at a time in the group

Be honest even when your responses may not be in agreement with the rest of the group

It is safe for you to freely express your opinions without consequence

Participants have the right to challenge, criticise and/or disagree during the decision/discussion in a respectful manner

IF then proceeded: Thank you for having completed the survey. What I found surprising why do you think nobody mentioned critical thinking?

Pause. No responses.

IF then asked specifically P1 – why didn't you list Critical thinking:

A1: I don't know what it is. We did it in year 12, but I still don't know it is.

A3: I think it is one of those things where you can put a lot of stuff into it – it's like logical problems

A2: Not really important – teachers don't really care about it at school [implied previous schooling]

IF asked why no differences has been noticed, for example why did in the initial survey everybody commented on women having less confidence, and then there was no noticeable difference with confidence

A1: They don't think themselves necessarily as the norm. I might think girls are not as confident but I am as confident as a boy

A2: The difference was in the past, with the newer generation there is perhaps less of a divide

A3: I think the main difference is risk taking. Girls are less confident to express their own opinions but rather stick with text book responses. Boys will choose to deviate and then either get a good or bad grade

A1: What [A3] said makes sense, in that sense girls are less confident in their own opinions, knowledge and theories

IF to A1: So, if girls are less confident, why do you think girls get better grades

A1: Because they put the hours in

IF: So just effort?

A2: Boys in my school were always told to revise more like girls, write things up, put colour coding in, be organised and so on. But that was for me too much effort

A3: Not putting in effort is seen as a plus. Being naturally bright is much better

A1: That's also true for girls. There is no gender difference – girls also want to be seen as putting in less work. But in reality, girls do put in more hours, for important exams perhaps not, but, for mock exams, even if they do not matter, they do revise more. Maybe they are more afraid of failure.

A2: They are also more organised

[Interruption, somebody came into the room]

IF: What makes a good lecturer at uni?

A1: Being enthusiastic about their subject

A2: Being interactive – make students answer questions

A1: Understand the level the students are at. So, neither too easy nor too difficult

A3: There is a big problem once tutors have tenure. Tutors then shorten time and only do 40 minutes rather than one hour. They don't put effort in at all,

but put in publications in good journals – they then seem in-touchable at that point.

A4: I like when they are quite concise. When they don't talk about stuff that is not relevant. So, more clarity.

A1: That's important at a base level – but when you specialise, it's important they talk about their own research and go off topic to inspire you.

[Pause]

IF Verbal versus written communication skills. Should universities improve and emphasise more verbal communication skills? And are big debating classes more important than small group tutorials?

A2: I am really bad at public speaking in big debating classes

A1: It's not good to push students to do public speaking. An intimate environment is better to learn to express ideas with clarity, which then helps for writing for exams as well. I might have said in the survey that verbal communication skills are not important for students, but I think they are important

A3: As accountant you will perhaps not require to talk as much as other professions [laughter] well perhaps that's a generalisation

A4: We have to talk for group projects and do presentations

A3: Yeah, most students get assessed on group presentations I don't like them

A1: I recently had to one, I hated it

A2: Me too – especially when criticised afterwards

IF: What about if groups have to summarise the previous lecture at the beginning of a new lecture?

A2: I have a lecturer who does a weekly pop quiz on a lecture slide and then asking students to discuss.

A3: When I was in China, we had to do some auxiliary reading and somebody had to summarise it and talk about it.

[Pause]

What is your opinion why social media seems to impact grades more negatively than socialising? Esp. as there had been a preconception that ‘White British male students drink too much?’

A1: I spend more time on Social Media but socialising is a more positive escape from revision and therefore a better use of my time. Social media doesn’t give me any fulfilment. Everybody needs a break, which socialising provides.

And why are clubs are not perceived as positive way to have a break to build connections?

A2: In clubs you are forced to do stuff at certain times – which might get in the way of work – socialising can be moved around to when it suits.

A1: Yes, there is a risk about over committing. But still I think clubs are important but with regards to your survey, I had to reshuffle it because I thought other things are more important.

A2: Social Media is during the time that you are meant to do work, as you don’t set time aside to do social medial

A3: Yeah, I echo both of those. Work leisure divide is important and so is getting outside of the room makes you feel better. It’s easier to switch to a different zone. Hop between facebook and essay gives the wrong impression that you work more. Go out and then come back to do solid work it’s more efficient.

IF: What about ethnicity differences?

A1: I think it is biological that white British people can drink more. Chinese and Asian people cannot handle alcohol as much. But Asian people can still spend as much time socialising but they just do not drink as much alcohol.

A2: They drink coffee

A3: Coffee and TV

A1: I think perhaps people's perception of others is wrong. Overall, we all average out.

A3: WeChat is so cool.

[Pause – IF looked up notes]

IF: Are men more considering the career they want to achieve after studies than focus on getting good grades?

A2: Yes, I think applying for a job is important

A1: Girls fixate on grades quite a lot. A lot of people have openly said that they are aiming for a first and then focus on that rather than thinking about what happens immediately afterwards. Of course, I do not know what boys think.

A2: I think boys seem to network loads.

A3: Networking seems to be quite male dominated. It's a boys' club thing especially in London. It's getting a lot better. While companies send a good balance of men and women and also from a mix of ethnicities to uni events, it's more blokes that attend. It's changing quite quickly, but there is still a lag in terms who is thinking that networking is useful for them.

A1 (interrupts): I think this comes back to the confidence thing. I have spoken a lot of girls who have said that networking is not really useful because they think I am not going to stand out in a crowd and I better work hard go get a first on my degree which I can then put on my CV as part of my job application which is going to be more useful, whereas men are more confident and think I'll look like such a good guy that they want to remember my name and take me on. Or perhaps I find somebody who supports the same football club as me and I get on really well with and they will want to have me in their firm.

A2 There are many more casual sports you can do for men, e.g. football or rugby, and this then helps to get internships. Through casual sports you can find friends in the right places. And it's easy to refer to it afterwards, like 'Oh yeah - I played you' or whatever. I got my internship like that.

IF: Still nobody acknowledges that they have networks

A3: I think this is a bit like methodological problem. People want to think of themselves as having achieved things through merit and hard work. So when you self-report you are more likely to say 'No - I don't think connections are important', by saying they are important you are admitting that you rely on networks which isn't meritocratic. Whereas on a more practical way, when not self-reporting on a survey, they would be like 'Hang on. Knowing so and so from JP Morgan will be good in getting my foot through the door'. Companies are not supposed to give people jobs at networking events, it's about processes. The unofficial stuff happens often afterwards for example when you give them a phone call.

IF: Can girls not do as good networking? Because they are not as relaxed?

A1: Potentially, but I have seen girls network really well. I don't know because there are shy girls and shy boys and confident girls and confident boys. Not sure what the difference is. But I think perhaps everything interlinks: The Confidence, the experienced public speaking, the posh private schools, the being white British male, going to these networking events because you push yourself to go because you are confident. It all interlinks and then ends up propelling more men forward. At a very high level the gender divide still exists, it might not in 30 or 40 years but it definitely exists now and still helps with the networks and connections.

IF: Are women more ethical because they do not recruit as much via networks?

[None of the four participants had any thoughts / comments]

IF: What about the role of luck – nobody wants to admit they have luck?

A1: Students only think about how hard they are working right now, and what they can do now to help in the future – it's not possible to anticipate luck in the future. Perhaps two out of 100 students decide that they want to rely on luck but I don't think anybody can reliably do that. Perhaps when you look back on your life later on you are more likely to admit to luck.

A3: Arguably luck is the single most important thing that determines everything – your intelligence is luck, your upbringing is luck. There is the all-encompassing luck that determinists believe in without any agency. And in that case even effort would be a product of luck. A large extent is luck, e.g. if you have attention deficit disorder and you cannot focus for long time on something that is bad luck. But then at a more specific level and you come to

an exam and you prepared specific material, and even the options you chose, or the teachers you get, is all down to luck. I think when I filled in the survey, I considered luck as getting a 68% rather than a 71% rather than all that stuff.

A4: I feel like students who consistently do well over a long period rarely rely on luck.

IF: What about the difference between logical and analytical.

A2: I don't think there is a big difference

A3: They are slightly different things and analytical comes before logical

IF: What about lectures vs individual support, why did students rank lectures higher?

A3: It's again a self-reporting issue. Even though nobody sees it, hmm, even though parents do not see it, even internal, talking about lectures makes it sound better than individual support.

A1: Going to lectures helps because you have more material to learn but each individual lecture doesn't matter.

IF: Why do you consider ethnicity more important than gender?

A1: The survey asked for our own opinion. It didn't matter to me personally

A3: Girls do better at university. Many ethnic minorities, e.g. of Caribbean decent, do not make it to university. Class matters more for white students. Poor white students perform less well. On a graph where wealth is compared to academic performance, the line for whites goes down quite aggressively. For other ethnicities, the wealth to university performance line is much more stable, this is because often being a second-generation immigrant, increases resilience.

A1 (interrupts): Or more hopeful because their parents are on an upwards trajectory

A3 (interrupts): Yeah, while the whites from a poorer background will be on the 2nd generation of unemployed. And also, a lot of outreach programs target non-whites directly while poor white boys are not considered as needing more attention. But then I think what [A1] said is more important.

IF: What about Planning versus Organisations. Literature says students consider planning more important than organisation.

A1: Planning needs organisation. Planning is overarching, while organisation needs to be constant. It's about being organised to stick to a plan and making sure the plan gets done in the day

A2: The problem is that many people waste a lot of time on planning and then give up on their plans. Organisation is for me about colour coding and putting things into folders

A3: Interesting that the definition on organisation is not clear. Did the literature give a definition of what is organisation?

IF: No – in the article I read there was no clear definition of what they meant with students' organisational skills. Perhaps this is because the authors wanted to be careful. I set up a Gender equality working group at uni and it took as one term to agree on the definitions of equalities, diversity and inclusion. One final question on termly module evaluation questionnaires. Do you fill them in?

A3: Only when extremely happy or extremely unhappy

A1: Yes, like [A3] only when extreme

A2: No, not regularly

A4: No

IF: And finally, any other comments, questions or suggestions from you?

A2: Could the survey have been always a comparison between two factors only, like a World Cup, so you get one left at the top

A3: I suppose class is definitely important

IF: Thank you for your time today.

Appendix H: Q-methodology coding output example for barriers (Phase 2)

(1) Z-scores male white British students

Statement	Factor 1 (F1)	Factor 2 (F2)	Factor 3 (F3)
8	-1.64	-0.13	-0.37
9	-0.88	0.70	0.37
12	-0.86	0.83	1.69
11	-0.68	0.13	-0.28
7	-0.33	-1.09	-1.69
10	-0.25	0.00	0.00
5	-0.19	-1.72	-0.66
3	0.29	1.76	-1.03
6	0.60	-0.96	0.66
4	0.95	-0.73	1.41
2	1.10	1.02	-0.75
1	1.89	0.20	0.66

General factor characteristics:

av_rel_coef	inload	eigenvals	expl_var	reliability	se_fscores	
f1	0.8	11	7.6	29	0.98	0.15
f2	0.8	4	3.9	15	0.94	0.24
f3	0.8	2	3.6	14	0.89	0.33

Not mapped 9
Correlation between factor z-scores: 42% mapped on factor 1
zsc_f1 zsc_f2 zsc_f3 58% explained variance
zsc_f1 1.000 0.021 0.142
zsc_f2 0.021 1.000 0.049
zsc_f3 0.142 0.049 1.000

Distinguishing and consensus statements :

dist.and.cons	f1	f2	sig_f1	f2	f3	sig_f1	f2	f3
1 Distinguishes f1 only	1.695	****	1.233	****	-4.6e-01	****	1.8e+00	****
2 Distinguishes f3 only	0.078	1.852	****	1.322	****	2.8e+00	-2.1e+00	****
3 Distinguishes all	-1.467	****	-0.462	****	0.468	****	-1.1e+00	****
4 Distinguishes f2 only	1.677	****	0.562	****	-0.057	****	6.0e-01	****
5 Distinguishes f2 only	1.534	****	0.756	****	-1.263	****	2.4e-01	****
6 Distinguishes f2 only	1.562	****	-1.579	****	-1.256	****	3.2e-01	****
7 Distinguishes f1 only	0.756	**	1.359	****	-1.3e-17	****	4.1e-01	****
8 Distinguishes f1 only	-1.508	****	-0.254	**	-0.392	****	4.1e-01	****
9 Distinguishes f1 only	-1.579	****	-0.254	**	-0.392	****	4.1e-01	****
10 Consensus	-0.254	-0.254	-0.254	-0.254	-1.3e-17	-0.254	-0.254	-0.254
11 Consensus	-0.254	-0.254	-0.254	-0.254	-1.3e-17	-0.254	-0.254	-0.254
12 Distinguishes all	-0.806	**	-0.392	**	-0.392	****	4.1e-01	****

(2) Z-scores female white British students

Statement	Factor 1 (F1)	Factor 2 (F2)	Factor 3 (F3)
1	-1.80	-1.97	-0.60
3	-1.31	0.49	-0.19
2	-1.04	0.56	0.92
10	-0.12	1.32	-1.74
12	-0.08	0.54	1.97
4	0.05	-0.94	0.59
8	0.10	0.77	-0.65
9	0.17	0.57	0.25
7	0.49	-0.12	-0.83
11	0.71	0.80	0.75
6	1.20	-0.79	0.33
5	1.65	-1.22	-0.80

General factor characteristics:

av_rel_coef	inload	eigenvals	expl_var	reliability	se_fscores	
f1	0.8	6	5.3	21	0.96	0.20
f2	0.8	5	5.0	20	0.95	0.22
f3	0.8	5	4.8	19	0.95	0.22

Not mapped 9
Correlation between factor z-scores: 24% mapped on factor 1
zsc_f1 zsc_f2 zsc_f3 64% mapped on lack of confidence
zsc_f1 1.000 -0.017 -0.033
zsc_f2 -0.017 1.000 0.079
zsc_f3 -0.033 0.079 1.000 60% explained variance

Distinguishing and consensus statements :

dist.and.cons	f1	f2	sig_f1	f2	f3	sig_f1	f2	f3
1 Distinguishes f1 only	0.167	****	-1.200	****	-1.367	****	-0.362	****
2 Distinguishes f1 only	-1.597	****	-1.959	****	0.682	****	0.682	****
3 Distinguishes all	-1.803	****	-1.121	****	-0.545	****	-1.532	****
4 Distinguishes f2 only	0.987	****	-0.545	****	2.450	****	-0.416	****
5 Distinguishes f1 only	2.866	****	0.864	**	-1.120	****	0.708	****
6 Distinguishes all	1.985	****	1.315	****	0.749	*	1.418	****
7 Distinguishes all	0.607	*	1.315	****	-0.083	0.316	0.316	****
8 Distinguishes all	-0.669	*	0.749	*	1.624	****	3.056	****
9 Consensus	-0.399	-0.083	-0.083	-0.083	-0.039	0.053	-0.039	0.053
10 Distinguishes all	-1.433	****	1.624	****	-0.039	0.053	-0.039	0.053
11 Consensus	-0.092	-0.039	-0.039	-0.039	-0.039	0.053	-0.039	0.053
12 Distinguishes all	-0.619	*	-2.055	****	-1.436	****	-1.436	****

(2) Z-scores female Chinese students (mainland China)

Statement	Factor 1 (F1)	Factor 2 (F2)	Factor 3 (F3)
1	-1.76	1.12	0.34
4	-0.91	-1.34	-0.45
3	-0.89	-0.23	1.08
2	-0.88	-0.69	0.50
7	-0.01	0.23	-1.30
5	-0.01	-1.55	-0.88
6	0.00	0.56	-1.04
8	0.00	1.52	1.08
11	0.90	-0.23	-1.17
10	0.90	0.70	-0.42
9	0.91	0.91	0.63
12	1.74	-0.99	1.61

General factor characteristics:

av_rel_coef	inload	eigenvals	expl_var	reliability	se_fscores	
f1	0.8	15	11	46	0.98	0.13
f2	0.8	5	4	17	0.95	0.22
f3	0.8	4	3	12	0.94	0.24

Not mapped 0
Correlation between factor z-scores: 63% mapped on factor 1
zsc_f1 zsc_f2 zsc_f3 83% mapped on lack of analytical skills
zsc_f1 1.000 -0.036 0.035
zsc_f2 -0.036 1.000 0.135
zsc_f3 0.035 0.135 1.000 75% explained variance

Distinguishing and consensus statements :

dist.and.cons	f1	f2	sig_f1	f2	f3	sig_f1	f2	f3
1 Distinguishes all	-2.8802	****	-2.10	****	0.78	****	0.78	****
2 Distinguishes f3 only	-0.1919	-1.38	****	-1.19	****	-1.19	****	****
3 Distinguishes all	-0.6590	**	-1.97	****	-1.31	****	-1.31	****
4 Consensus	0.4327	-0.46	-0.46	-0.46	-0.89	-0.89	-0.89	-0.89
5 Distinguishes all	1.5459	****	0.88	****	0.67	****	0.67	****
6 Distinguishes all	-0.5624	*	1.04	****	1.60	****	1.60	****
7 Distinguishes f3 only	-0.2387	1.29	****	1.53	****	1.53	****	****
8 Distinguishes f1 only	-1.5180	****	-1.08	****	0.44	****	0.44	****
9 Consensus	0.0047	0.28	0.28	0.28	0.27	0.27	0.27	0.27
10 Distinguishes f3 only	0.2067	1.32	****	1.11	****	1.11	****	****
11 Distinguishes all	1.1286	****	2.07	****	0.94	****	0.94	****
12 Distinguishes f2 only	2.7316	****	0.13	****	-2.60	****	-2.60	****

Appendix I: Correlations matrix barriers and enablers (Phase 2)

	1	2	3	4	5	6	7	8	9	10	11	12	101	102	103	104	105	106	107	108	109	110	111	112			
GenderNat	1.00																										
Gender	0.01	1.00																									
Nationality	0.07	0.03	1.00																								
Degree	0.00	0.00	0.00	1.00																							
1		1.00																									
2	(0.10)	(0.10)	(0.01)																								
3	(0.05)	(0.05)	0.16	1.00																							
4	(0.04)	(0.03)	(0.24)	0.02	1.00																						
5	(0.00)	(0.00)	0.04	(0.06)	0.04	1.00																					
6	0.03	0.02	0.16	(0.13)	(0.10)	(0.22)	1.00																				
7	0.11	0.11	0.07	0.01	(0.22)	(0.20)	(0.09)	1.00																			
8	0.05	0.05	0.03	(0.15)	(0.13)	0.02	(0.05)	(0.03)	1.00																		
9	(0.11)	(0.10)	(0.08)	0.06	(0.09)	0.00	(0.22)	(0.15)	(0.22)	1.00																	
10	(0.02)	(0.02)	0.08	(0.11)	(0.08)	(0.18)	(0.20)	(0.07)	(0.15)	(0.13)	1.00																
11	0.03	0.03	(0.07)	0.12	(0.12)	(0.09)	(0.21)	(0.07)	(0.32)	(0.20)	0.05	1.00															
12	0.08	0.08	0.05	(0.07)	(0.05)	(0.12)	(0.15)	(0.23)	(0.19)	(0.20)	(0.13)	0.05	1.00														
101	0.06	0.06	(0.04)	(0.09)	(0.02)	0.16	0.01	0.09	0.05	(0.00)	(0.06)	0.00	(0.01)	1.00													
102	0.18	0.18	0.02	(0.02)	0.04	0.01	(0.10)	0.02	0.01	0.02	(0.01)	0.06	(0.23)	0.01	0.02	0.13	0.21	1.00									
103	0.09	0.09	(0.04)	(0.13)	0.06	(0.06)	(0.08)	0.04	(0.06)	(0.07)	0.17	0.05	0.10	(0.11)	(0.09)	0.03	0.27	0.18	1.00								
104	0.08	0.08	(0.05)	0.08	(0.04)	0.12	(0.06)	0.22	0.06	(0.09)	0.12	(0.00)	(0.08)	(0.07)	(0.00)	0.15	0.14	0.14	(0.01)	1.00							
105	(0.01)	(0.01)	0.04	(0.01)	0.10	0.13	(0.02)	(0.02)	0.01	(0.01)	(0.01)	(0.06)	(0.02)	(0.11)	0.04	(0.00)	(0.20)	(0.11)	0.04	(0.00)	1.00						
106	(0.04)	(0.05)	0.06	0.05	0.03	0.02	0.06	(0.10)	0.08	0.02	(0.08)	0.06	(0.06)	(0.03)	(0.01)	(0.01)	(0.05)	(0.16)	(0.23)	0.04	0.41	1.00					
107	(0.13)	(0.13)	(0.01)	(0.06)	(0.07)	(0.06)	0.04	(0.06)	0.11	(0.02)	(0.00)	0.08	0.09	(0.00)	(0.05)	(0.10)	(0.22)	(0.31)	(0.12)	(0.16)	0.06	(0.03)	1.00				
108	0.03	0.03	0.06	0.06	0.08	(0.04)	0.13	(0.04)	0.13	(0.02)	0.03	(0.01)	0.10	(0.02)	(0.08)	(0.21)	(0.18)	(0.15)	(0.21)	(0.24)	(0.24)	(0.05)	1.00				
109	(0.21)	(0.21)	(0.00)	(0.03)	(0.01)	(0.06)	0.06	(0.04)	0.05	(0.06)	0.04	(0.09)	(0.06)	0.08	0.01	0.03	(0.35)	(0.26)	(0.30)	(0.28)	(0.21)	(0.22)	0.01	1.00			
110	0.02	0.01	0.14	0.04	(0.18)	(0.11)	0.07	(0.10)	(0.00)	0.05	(0.10)	0.05	0.00	0.09	0.11	0.07	(0.35)	(0.15)	(0.32)	(0.28)	(0.16)	(0.13)	0.08	0.13	1.00		
111	(0.05)	(0.05)	(0.02)	0.11	0.01	(0.15)	(0.14)	(0.05)	(0.03)	(0.04)	0.14	(0.04)	0.13	0.11	(0.08)	0.12	(0.30)	(0.17)	(0.16)	(0.29)	(0.07)	(0.06)	(0.01)	(0.05)	0.12	1.00	
112	(0.07)	(0.07)	(0.12)	0.03	(0.04)	(0.04)	0.03	(0.06)	0.01	0.08	(0.10)	(0.12)	0.01	(0.01)	(0.10)	0.13	(0.38)	(0.18)	(0.19)	(0.27)	(0.17)	(0.22)	(0.10)	0.03	0.24	0.18	1.00

- 12 Teaching myself additional skills (e.g. coding, languages) or creating a start-up or other
- 11 Seeking opportunities to work with and in diverse groups
- 10 Attending networking events with guest-speakers and speaking to them individually
- 9 Focussing on verbal communication / seeking opportunities for public speaking, e.g. in s4
- 8 Focussing on applying for jobs / prioritising job search over degree result
- 7 Focussing on critical thinking and debating (with friends and in class)
- 6 Focussing on exam techniques, knowing marking criteria, predicting assessments
- 5 Focussing on writing skills (incl. proactively reading journal articles and quality newspaper)
- 4 Focussing on analytical and problem solving skills
- 3 Perceiving & putting in effort / hours of work to get the best possible degree result
- 2 Being organised
- 1 Planning and time management
- 101 Lack of confidence - doubting in my own ability to succeed
- 102 Poor writing skills, not being able to express my thoughts well on paper
- 103 Poor verbal communicator / avoiding speaking out in public, e.g. in seminars
- 104 Lacking analytical or critical thinking skills
- 105 Lack of planning or managing time
- 106 Being disorganised
- 107 Not persevering, not putting in effort or hours of work to get the best possible degree result
- 108 Being on Social Media / watching TV / procrastinating while I had wanted to revise
- 109 Deprioritising applying for jobs / not attending networking events
- 110 Having poor lecturers and tutors
- 111 Not attending / being able to attend lectures, workshops or seminars
- 112 Not teaching myself additional skills (e.g. coding, IT, languages) or creating a start-up or other organisation

Appendix J: Overview mean averages of barriers and enablers (Phase 2)

Barriers (the lower the number the stronger agreed, i.e. putting it on 1st place)	Count	Combination Gender & Nationality											
		101	102	103	104	105	106	107	108	109	110	111	112
112 Not teaching myself additional skills (e.g. coding, IT, languages) or creating a start-up or other organisation	25	(0.76)	(0.20)	(0.20)	0.08	0.04	0.32	(0.16)	(0.24)	0.40	(0.48)	0.44	0.76
111 Not attending / being able to attend lectures, workshops or seminars	4	0.50	(0.25)	0.25	0.25	(0.50)	-	(0.25)	(0.50)	0.75	0.25	0.25	(0.75)
110 Having poor lecturers and tutors	24	(0.54)	(0.58)	(0.54)	(1.04)	(0.46)	(0.08)	(0.08)	0.38	0.92	0.71	0.58	0.75
109 Deprioritising applying for jobs / not attending networking events	13	(0.62)	(0.46)	(0.08)	(0.23)	-	0.08	(0.23)	0.23	0.31	(0.08)	0.38	0.69
108 Being on Social Media watching TV / procrastinating while I had wanted to revise	9	(0.44)	(0.44)	0.22	(0.67)	(0.44)	0.22	0.11	(0.67)	0.22	0.56	0.78	0.56
107 Not persevering, not putting in effort or hours of work to get the best possible degree result	6	(0.33)	-	(0.67)	-	-	1.17	(0.17)	(0.33)	-	0.33	0.17	(0.17)
106 Being disorganised	26	0.38	0.15	0.31	0.23	(0.27)	(0.08)	(0.46)	(0.58)	(0.12)	-	(0.04)	0.46
105 Lack of planning or managing time	5	0.50	0.50	0.25	(0.25)	(0.75)	-	(0.25)	0.25	(0.75)	0.50	0.25	(0.25)
104 Lacking analytical or critical thinking skills	14	(0.85)	(0.46)	(0.46)	(0.15)	0.23	0.23	(0.15)	0.23	0.38	0.31	0.38	0.31
103 Poor verbal communicator / avoiding speaking out in public, e.g. in seminars	15	(1.29)	(0.43)	(0.29)	(0.14)	0.07	0.36	(0.36)	0.50	0.21	0.50	0.29	0.57
102 Poor writing skills, not being able to express my thoughts well on paper	7	(1.00)	0.86	(0.43)	(0.14)	(0.57)	-	(0.43)	0.43	-	0.57	0.71	-
101 Lack of confidence - doubting in my own ability to succeed	3	(1.00)	1.33	(1.00)	1.00	(0.33)	(0.67)	-	0.67	(0.33)	0.33	-	-

Enablers (the lower the number the stronger agreed, i.e. putting it on 1st place)	Count	Combination Gender & Nationality											
		1	2	3	4	5	6	7	8	9	10	11	12
12 Teaching myself additional skills (e.g. coding, languages) or creating a start-up or other organisation	25	(1.28)	(0.68)	(1.12)	(0.08)	0.20	(0.08)	0.12	0.36	0.44	0.80	0.76	0.56
11 Seeking opportunities to work with and in diverse groups	4	(0.50)	(0.50)	(0.75)	-	(0.25)	(1.00)	0.25	0.75	1.50	0.25	0.25	-
10 Attending networking events with guest-speakers and speaking to them individually	24	(0.96)	(0.54)	(0.38)	(0.50)	0.33	0.17	(0.42)	0.42	0.63	0.67	0.17	0.42
9 Focussing on verbal communication / seeking opportunities for public speaking, e.g. in seminars	13	(0.54)	(0.38)	(0.23)	(0.85)	-	(0.31)	(0.15)	0.38	0.23	0.85	0.23	0.77
8 Focussing on applying for jobs / prioritising job search over degree result	9	(1.56)	(0.89)	(0.67)	(0.56)	0.56	0.22	0.22	0.33	0.89	1.11	(0.22)	0.56
7 Focussing on critical thinking and debating (with friends and in class)	6	(1.33)	(0.33)	(0.50)	(0.33)	0.33	-	0.67	0.17	(0.17)	0.50	0.83	0.17
6 Focussing on exam techniques, knowing marking criteria, predicting assessments	26	(1.50)	(0.73)	(1.12)	0.31	0.35	(0.27)	0.42	0.65	0.19	0.58	0.62	0.50
5 Focussing on writing skills (incl. proactively reading journal articles and quality newspapers)	5	(0.75)	(0.50)	(1.75)	(0.50)	(0.25)	(0.50)	1.50	0.25	1.00	0.50	0.75	0.25
4 Focussing on analytical and problem solving skills	14	(1.54)	(0.77)	(0.31)	(0.15)	0.15	0.38	(0.54)	0.31	0.62	0.62	0.62	0.62
3 Persevering & putting in effort / hours of work to get the best possible degree result	15	(1.36)	(0.64)	-	(0.71)	(0.64)	(0.14)	0.21	0.50	0.36	0.86	0.64	0.93
2 Being organised	7	(0.86)	(1.00)	(0.71)	(1.00)	1.00	0.71	0.43	(0.29)	(0.29)	0.86	0.29	0.86
1 Planning and time management	3	(0.33)	(0.67)	(1.00)	(1.67)	0.33	-	0.33	1.33	-	0.67	1.00	-

Code: Female|21--Male|22-- British (white)|31.0--British (Black, Asian, and Minority Ethnic - BME)|32.0--Han Chinese (Mainland China)|33.0--Hong Kong Chinese|34.0--Other Asian|35.0--EU (white non-British)|36.0--EU (BME non-British)|37.0--Other white|38.0--Other BME|39.0--Prefer to not disclose|40.0

Appendix K: Transcripts faculty (group) interviews (Phase 3)

Group interview in a focus forum setting

IF received consent forms from participants.

IF provided an overview of the EdD, ending with stating: I deliver the same education as I had received – and that it is all knowledge-based rather than transferable skills-based. What are your thoughts?

W: Higher education is certainly very different today than when I went to university but then that might be a general thing. I was taught in a lecture ‘*stuff*’, then had to read articles on the same ‘*stuff*’ and then went to seminars to discuss what we had read. I do not think we do this anymore. I think we recognise that knowledge is fluent and dynamic and we do try to concentrate on getting students to think critically and ask them to apply these to different case studies. So I think we focus on transferable skills. Maybe we could be better, but I don’t think we focus only on knowledge. I don’t know what the rest of you think?

Z: We do, but it’s more about how clearly, it’s explained to students and how it is applied to the wider world. When you are out in the field that’s what you’d be expected to do as well. So maybe it’s about pointing out to the students what they are learning and how it applies to the outside world.

Y: We are different to Maths and Physics, as a business school we have to focus on practical skills to increase the employability. I guess we cannot always talk about theory without the practicalities.

T: Applying a theory and then feeling the practical consequences that is the start of critical theories. For example, a student designs a job advertisement and then notices that nobody in the class is going to apply for it and then having to think critically why this is the case. We should more make our students feel the consequences of certain routes. We do at the moment too many theoretical exercises that are not that strong.

[one participant arrived late – IF briefly repeated the question, i.e. what can we do about them feeling confident]

X: What about if that’s delusion – with men being delusional about their knowledge and how qualified they are.

V: Yes, it's the men who are overconfident.

IF: And the overconfidence pays as seen by the recent gender pay-gap findings.

X: I see that. But I think we need to distinguish if it's about increasing students' skills or is it a separate issue that we want to increase female students' perception of their own skills. I think we want students to have a realistic understanding of their current strengths and weaknesses and then help all the students to increase their skills. So, we need to convince male students that they are not as good as they think they are and to motivate to know more of their strengths and weaknesses and to give them opportunities to improve that, like group presentations, like public speaking. I had for my business degree [in the US] multiple, we had full modules on public speaking and like consulting. And we did projects where we had to present our results in front of businesses. And we had tons of presentations, like you were always presenting in front of the class and being assessed on it. It's like one thing verbal communication and presentation skills which we could actually improve. But let's get back to the NSS, do you make them more comfortable or what might help them.

T: To connect to that. So your question was how do we boost students' confidence. Confidence comes out of failure and then learning that you can pull yourself up and that you get out of that. And we are cushioning to some extent students' experiences and removing some of the potential to potentially feel that they are not succeeding about something. So, ironically we are trying to boost students' confidence by not putting them in difficult situations but it's actual these difficult situations and getting out on the other side where we boost students' confidence.

V: Yes. I think it's the knowledge of the students in each subject is important because it is the base for them actually to be confident, so it's quite crucial. It's important that when we ask students to give presentation it's important to consider the time when we ask students. Is it at the beginning of the seminar or at the end of the seminar or is it at the beginning of the term or towards the end of the term. It's much better to ask towards the end when they have time to build up their knowledge and boost their confidence by themselves, knowing that they can do it. And then we can provide the opportunity to demonstrate that and then using this as a constructive way to boost both their real confidence and their perceived confidence.

W: 21.38 on recorder (and 8.46 of doc 'recorder 1') Yeah, yeah, yeah (in increasing tone – very subtle to start with). I think there is nothing more understanding of your own lack of knowledge than having to present on it and then realising that you don't actually understand. That's how you know that you actually do not know. That's when you think to yourself 'Oh my god I have no idea what I am talking about'. That happens to me quite a lot.

IF: I think generally it is good to be able to talk about things that you have no clue about and you still come across as knowledgeable. It's the idea of faking it.

W: That's good. I am good at that. (laughter)

Z: I think it's a difficult one. Because to some extent culture and society are ruling it. Having lived in China it's a case whereby men always being up there and women having to follow. Or coming from an African society, men are always out there and women have to follow. Even if you are confident. You are not allowed to present that confident front. So it's until you find yourself in an environment where it is OK to be you, then that's when you'll begin to shine. So, it's not easy to teach in a classroom. So, when Chinese students go back to China will they be allowed to be who they are. Probably not.

IF: What about your thoughts on female British students. They are also not confident?

Z: Isn't that perceived. Because I don't think the average person puts up their hand and says I am a confident person. Everybody expects the next person to point them out and say 'this person is confident'. So, I am not sure how realistic this picture is. I am not saying this is fudged but I am not sure how realistic it is, i.e. in term of what they think confidence is all about. (11.10 recorder 1)

W: It's interesting. We had two competitions at the end of this term and the winning teams of both of our competitions were all-women teams.

U: But then we have a higher percentage of women in the school?

W: I am not commenting on that. I want to say that they didn't lack confidence. Their presentations were really good.

V: I remember in the staff student liaisons meetings I find more and more female Chinese students that are brave to raise issues and are more open than male Chinese right now.

T: We erroneously treat gender as a theoretical construct by collapsing it saying ‘men are this’ and ‘women are that’ and ironically, we are doing this in the area of diversity. There is so much intra-gender diversity that we are just simply ignoring when we are collapsing. And also, language wise I don’t advocate saying ‘well men thought this way, women thought that way’ but rather ‘relatively more men than more women or the other way round’. Such a language also allows for these differences that we observe. The question for this research is then do we focus on the wider group or do we single out few students? For example, this group of female students who won the competition how do we boost that more or do we want to focus on the average overall. In other words, do we want to single out certain students or do we want to keep the inclusion. Research in other areas has shown that men have a distribution that is skewed towards the top and bottom and for women there seems to be a higher concentration towards the middle. That’s something we might to have to take into account. As a practical step I’ve had very good experience with tasking students to learn small theory just one concept, management by objectives for instance and then once the student was the expert, in pairs they had to explain the concept on a 1:1 basis to another student. And then the other student explained his/her concept. This could then lead up later in the term to a group presentation. This was a group of predominantly Chinese, male and female students and I have seen them very active in expressing their views no in front of the big group but in front of one person, and not needing to explain complicated research topics but just one simple concept.

V: This sounds good, but the traditional 2h lecture and 1h seminar are difficult to accommodate this kind of activities. Perhaps a 3h workshop is better arrangement to accommodate more active roles played by the students and encourage them, actually, to do most of the learning and to do most of the group discussion and to come up with something like [interrupted]

T: My activity was part of a 2h workshop and this exercise took just 20 mins

V: Is it? I find it quite challenging to include this type of activities in just 1-hour seminars [one of the issues is that we are not allowed to teach for 1.5h – econ does it in booking 4h of teaching time and then only using 3 hours], but then perhaps because my subject area [Finance] is very different to yours [HR]. I find that students find it difficult to replicate calculations with just a

couple of changed numbers in the seminars that they learned during previous lectures, so if I did even further activities we would definitely overrun with time. I think 3h workshops might be better to accommodate this type of activities. But that is just my experience.

U: (30.19 in staff focus group recording). Yesterday for example I went with my students Bowling for end of term activity. It relates nicely to your statement of context. We have quite a number of female Chinese students who do not speak up in the classroom at all. And at bowling they were not at all the same like in the classroom. So, they have their confidence. They tease everybody they kind of run the show.

V: Is it because they were actually quite good at bowling?

U: It relates nicely to your statement of context. In the classroom we can do whatever we like and they sit there and do not participate. If I had seen them in this other social context it would have been far easier for me to tease out more participation in the classroom. My assumption was they just never want to speak. And they were then jumping up and down in the Bowling centre and speaking in English was no problem for them.

Y: This would probably make a difference because traditionally in China in a classroom, teachers always have definite authority and I think as we are raised with that type of background, we have an assumption that when we step into a classroom that the teacher will have an authority over you. Better to just sit down and be quiet and observe everything.

V: What about the German culture. German's also tend to be very disciplined.

IF: Yes, they are but I didn't have any Germans in my group of students.

W: Let's go back to Ben's point about a lack of confidence. I think a lack of confidence is quite an important thing to have.

U: That's a very female statement

W: Yeah. It possibly is, but I am quite happy to often feel 'oh my god I am not sure that I know'. And I don't want to be different to that. I don't want to be a bullshitter (20.44 on recording, 32.58 on recorder)

U: That's perhaps female academic

W: I think it's fine to recognise that you don't know everything and therefore...

U: Isabel will jump up and down

X: You don't know from this why they are saying that they are not confident.

W: Exactly

IF: I don't know, but generally it's the idea about faking it and bullshitting.

U: Not everybody is faking it. [laughter]

Z: Perhaps it's the majority.

U: Well maybe everybody works hard and on top of it perhaps some do impression management.

IF: I think we should teach impression management.

V: So, basically are you saying them that we are teaching them how to fake.

T: But they will always be worse than those who do it naturally. No matter how well you teach somebody it may come across as fake and actually be counterproductive in term of them getting the jobs. Because in effect you are pretending to be somebody you are not. People see through these kind of things. There is a danger in promoting something that is perhaps counterproductive.

V: What about teaching the importance about the perceptions.

U: The awareness of others. In negotiation you have the training to lie to make a good deal – but training to lie is not right but training them when it is acceptable in the context of getting a good deal might be acceptable.

T: They then have CSR the next term. (laughter)

X: We talked about that last week. I actually do think that training them to lie is good. And teaching them when lying is acceptable and when it is not acceptable. So I get them to sign this article which is all about the legal definition of fraud. How you are able to misrepresent the alternatives to make them stronger than they are, that is an acceptable part of negotiating. 24.44

U: It's always important to tell them how to find when people are lying.

X: Yeah, that too. But if you go away and give away all your information and tell the truth about everything then you are getting a bad deal [importance to withhold information]

W: But let's go back to a point you made, the pay gap, we all know that women are not good in negotiating their salary. And say 'I'm worth more than that'. I feel it's up to the employer to manage this and to decide what I am worth. And if a men negotiated more, then it's up to the employer to say that they are giving you a salary rise too. So as an employee I shouldn't be doing this. A lot of this is not about women's lacking confidence but it's about employers not being responsible for the decisions they make.

U: (mumble)

W: Well that's not what they should do. They should look 'what is somebody doing' and 'are they being paid fairly compared to their peers'. The organisation should be look after us (their employees). I do think women generally have less confidence [thought: fear of rejection?] and that partly explains the gender pay gap but I don't think that's a reason why we should teach women to bullshit better and be overconfident.

X: In negotiation I give women these academic articles and women do not initiate negotiations as often as men do because when they do initiate negotiations, they get punished for it, not just by men but also by other women. Men and Women don't like it when women ask for more. So, it's not that women are not totally irrational by not initiating negotiations it's there are negative consequences. You have to address the underlying issue there.

U: Also, if were to admit that men are better at bullshitting this would become then even more acceptable. So ,if it's acceptable to lie, then we lie.

Y: If you think about Hillary Clinton and Donald Trump – both were bullshitters but Donald Trump won. So, society has a different perception of acceptability of bullshitting with Hillary Clinton being more criticised for it even though both were equally bad.

IF: Coming back to practical steps. IBM is core in year 1 and it's a repeat of knowledge, while negotiation is an option in year 3. So, we do many things

too late. And for IBM many have prior knowledge of the IBM concepts from their A levels

W: But most of them don't. You can't ignore that.

U: It's sounds to me like 'let's correct the societal defects early in our programme'? And then everything is good.

I Talking about study visits too late

U: We do have clubs and societies that they can join

IF: Because nobody participates. They all have short term thinking.

U: It sounds to me that you are coming in from a parental mode. You might not find it important but I know better so you have to do it.

T: Actually, this is something ironic about the gender debate. This is actually women bashing. Implicitly we are conveying that however you are and feel like it's actually wrong and you should be different. You should have more masculinity and more maleness. I am wondering what the benefit is of creating a utopia where women are more confident and then when they get to the workplace where they notice that it's different.

X: I agree, the real problem here is that the male students are being delusional and overconfident. We need them to want to work hard to improve on their weaknesses. Especially as the first year doesn't count towards their final grade so we only have two years while in the US they have four year that are all assessed. [Thought: perhaps bullshitting is a combination of brownnosing and cunning?]

W: Going back to IBM I think it's too easy. I think it kind of doesn't challenge students enough. We also have to be more clear [sic] about knowledge and skills and how they develop through the curricula. Having more continuity across our curricula I think it then builds students confidence gradually in their knowledge and skills and their understanding of both. I think at the moment students see each module as an isolated island because that's how we teach it. They learn a bit in one module and have regurgitate it for the assessment and forget about it. We have to collaborate better, understand each other's syllabi more and align our curricula. Probably when the curriculum was designed first there was some cohesion there but it has changed kind of periodically and different people teach it..

U: IBM is definitely too basic. In Germany we didn't have introductory modules and we had a 92% failure rate.

W: Don't think we want to go there

T: Yes, in the first term the students calibrate their learning so if they can get away with things in year 1, that will set the tone. And potentially more male students gamble and check how little they can do to get away with things. We could have IBM where failure rates might be higher so that students get a warning call, so I don't study just with general knowledge I cannot get away with it.

X: Yes, we talked about this at MAB when we looked at grades and noted that in year 1 the average grades are too high versus year 2 and 3.

W: And they don't have to prep. If you learn this in the first year, then it's difficult to break the habit. I was in a review meeting where a year 1 economics student who didn't attend lectures and seminars said that he doesn't need to go to lectures and seminars as he knows most that is taught already and the remaining term, he can study just by looking at the Study Direct site (our virtual learning site). So, this is not necessarily about your study about women and confidence but about making things difficult in the first year for all and to realise that they have to work harder.

T: How will students react to that. I could sense male student saying I gambled and it's not working but female students might get disillusioned, crying in my office, asking me exactly what steps they need to take to make things better. And how should I answer that in a structure way. That's sometimes difficult to do because often the learning is from intuition.

W: Yeah, you don't want to make anybody totally unconfident. So, it's a difficult balancing act.

T: And the risk that somebody will not make it. I think culturally BS tries to be inclusive – and trying to boost the middle ground, that's why we don't have the excellence.

W: Do you remember the employability talk we had at a teaching away day and the woman was talking about building resilience. We don't really build resilience. In the States I could make students first fail and then give other things to learn and do and they would then pass. Here there are severe

consequences. They have to come back in August. They cannot get more than 40%. It's how our systems are structured really deters us from allowing failures (2.41 and 51.07)

X: Yes, we cannot be active participants in improvement.

U: In Germany you need to sometimes try 4 or 5 times

V: Maybe we can do some changes to year 1 as it doesn't count.

W: We have to make sure that they can still progress.

V: Maybe we can apply a different threshold, so that a 40% is still a fail to be repeated in the summer but even below 60% requires additional work.

T: We are very quick to jump to grades as only instrument to incentivise students. As instructors and tutors the personal connection we have with students are also useful. Formative feedback can be as powerful. The games we do with the MBA for example where students can experience different paths and the outcomes are computer generated are also useful.

W: Yeah – I think in an ideal work we can provide more formative input and do tailored simulations, but some of our classes are too big and we don't really get to know the students very well. It's different for MBA students where it's whole couple of day teaching and you get to know the students over lunch. With the other modules you don't really get to know the other students really well.

U: Overall, we don't make studying too easy. A reader I know (used name) says that students complain that his teaching is too difficult and that all other modules are much easier.

T: Students want to know exactly what is relevant because that's what they are used to. Students might prefer to have one clear definition than a 5 min explanation. The student was wondering what is important and relevant. And there is a culture clash if we make it more difficult. Do we want to defend and say 'yes, it's tough, but that's needed' and make students resilient, or do we make it easier next year.

U: We should say more 'figure it out, you are old enough'.

IF: What about them paying a substantial amount of tuition fees

Z: That's not an excuse. Paying fees has nothing to do with it. We shouldn't use it as an excuse. We are not here to please everybody. Some students will be happy, others sad, tough luck. That is what the world is all about.

U: We put so much value on NSS and MCQs. We also listen to students extensively in student staff meetings. We follow up with faculty and say 'please do this or that'.

W: Good things came out of student staff meetings that are actually productive. For example, they hated assessed group work and we've changed it with no more group assessments from year 2 onwards.

IF: Students do not like group work as they assume it's assessed group work

Z: Yes, we are failing. We are not pushing group work enough and therefore they lose out on some transferable skills. In the real world you still have to work with people even if you don't like them.

T: But yeah. Often, it's just time commitment. It's not possible to have group meetings before 12noon. Students who do not want to work, know that they can get away because others do the work.

X: It's the real issue because we have to give for group work the same marks per group

W: Well, you could make it an individual group assessment based on a group project.

T: What about honours classes to show recognition. It's a prestige thing to be part of. Getting admitted might raise confidence.

W: The dissertation is a bit like this because you can only do it if you have good marks. Maybe we don't make it enough of. Like a reward or something that you can be proud of.

T: Or guest lectures. Whatever. But this is a departure from inclusiveness as you get a bit of exclusiveness Getting admitted will give recognition.

U: Isn't it the weak students who are lacking confidence, so by following your proposal you boost the confidence of students who are already confident.

T: There is interesting literature of women in competition. For example, Chinese women might tend to want to be the same as the group and not stand out, so while we see students as individuals, while they see themselves as embedded in a friendship networks or with peers. So we don't see the dynamics behind the groups.

IF: My research is more about factors to succeed, not only confidence. For example, organisational skills are important and I played the card well for CSR this term and had all the comments how great the module was organised. But what about verbal communication skills, it seems to be taught well in the US and Australia?

W: Isn't the Australian who is over here be the more confident than the Australian at home as otherwise he isn't here. So they are not representatives of their home country. But going back to your example of bowling, where you think that shy students got out of their comfort zone and were vibrant [this ignored V:'s point before that perhaps they are just good at it – I remember the first time I played Badminton with my colleagues and felt that I could be myself and be all relaxed, and a different friend of mine mentioned yoga as a way to be relaxed – also I shouldn't forget Erasmus and Bueghel] so if there were some induction activities which should bring them more out and show the lecturers as more approachable would bowling be feasible?

T: Would bowling make the lecturer look like having less status and lose credibility?

V: Hmm. What about going swimming?

(General surprise by all – swimming?)

Y: Those things have to be carefully planned in year 1 of an undergraduate degree.

W: The problem is how can we get 200+ students to Bowling

U: When I went to a language course when I was a student the only think I remember was the bowling.

X: Do students have an orientation – or is this just Freshers week.

W: But it's more about providing information than doing team building exercises.

Z: For my studies I had an excellent orientation day and met key lecturers and it made life a bit easier. It was easier to not see them as them and us and afterwards go and see them for the studies with questions or drop them an email. The problem is that at BS it's the strong students that make contact. The weak students don't make contact and as lecturers we are therefore unable to help students early enough. So, a social programme in the beginning might help both lecturers and the students.

W: I've said to Course Directors for a long time. There is a budget, you can organise something but it's quite a lot to organise.

V: Coming back to the swimming – I saw LSE students at an away day at a hotel with a pool where students and alumni met. So, also dinner parties.

X: I didn't get any support by the way when I tried to organise something for my course. I tried many colleagues from the office and had zero help.

T: What about the cultural element. Doing something I am not used to from my home country will do the opposite of boosting my confidence [what about Thai Chi]

X: But at least it challenges students [but only some?]

Z: At Trent we did this mountain expedition which I thought I would hate. However, from the beginning they pointed out that everybody will like some things and do not like others and that it was about taking everybody out of their comfort zone and that we should all try it.

U: For bowling they put the sides up

W: It's definitely an admin issue. Our problem is that we are not in the town but a campus uni with nothing around so it's difficult to get them to marina.

U: What about saying they should find their own way there and we start at 6pm?

X: But what about communication skills module?

U: These were meant to be part of every module

V: Also Finance and Accounting students do not like to have too many non-Finance and Accounting modules.

IF: Similarly, students say they don't have not enough numerical and analytical skills modules

U: No analytical skills, not enough maths and stats.

W: We have some modules, Intro to Accounting and Intro to Economics for all, but we need to teach more of these. I am an EE at LSE and they have a high failure rate for maths and stats.

T: But are these skills really relevant for our students and in line what they want to do later on in the job market?

I They do need those skills.

W: We have to think about admissions. I think a lot of our students look at the curriculum and choose BS because there is so little maths. Students regularly say that they chose BS rather than LSE because there is less maths.

T: For my stats we didn't have to calculate the numbers, but we had to interpret the data. Some students like numbers because they see that as a 'definite skills'. But if we went into training Excel – considering that we know that students do nothing at home - then we would have too much training in specific software

W: In Finance they now do a Bloomberg certificate. Where they have to do it themselves. You can build it into a revamp it into IBM.

Y: But you have to make it compulsory.

W: The concern to make it contributory is the cheating as we do not know if they do it themselves. We over-assess. It takes us a long time to mark. Perhaps we shouldn't care about cheating at home and still ask them to do certain online courses where the mark that is achieved automatically and systems generated contributes to the module overall.

IF: What about teacher training and peer observations, are they optimal?

U: Well we are not too professional with it. There is a proverb: Wash me but don't make me wet. [It's a German saying about people who are less committed to something than they publicly profess.] They are more a tick boxing exercise. You don't want to make anything essential with it.

W: 85% of staff do it but the form is rubbish but that's getting changed

IF: What about being somebody you know well to make it more constructive

W: Observing somebody else is makes you learn more than when observing somebody you know or also being observed yourself. Whether the feedback is as effective as it could be that's doubtful. I think we need to find better ways to kind of assess our teaching abilities how we measure and monitor that. We do a terrible job on that.

X: Yes, you need to measure it better and there has to be a consequence.

W: And that should feed into professional development.

V: There are many central professional development classes available. We should tell staff more about those opportunities.

T: What about tie the peer review with a 180-degree review – where the person who observes the teaching also sees the comments the lecturer gets from students. Or they speak to students after the lecture. It's then easier to give constructive feedback. We have a tendency for box ticking, rather than a personal conversation. The more we are trying to shape things in a certain direction, the more we risk that it becomes tick boxing. I noticed that as well at the PGCert.

W: There are other things, for example students moan how poorly Study Direct sites are designed. Structuring by week is not rocket science. So, a peer review should also look at Study Direct sites. It still relies on you having to say to others that they are not very good and that's very difficult when it is peer to peer.

T: It's easier if you have supporting comments from students. For example, some students told me that your Study Direct site is not very good and I found it also very difficult to navigate through it.

W: So a peer reviewer will do a focus group to some of the students independently?

T: An informal one after or before class. Or you get questionnaire feedback. Where the peer assessor hands out the questionnaire at the start of the lecture to some students.

IF: Why should the peer assessment also check how well planned and organised the module is overall?

T: We have a tendency for box ticking for pedagogy and this takes the personal side out of it. I have also observed the box ticking for the PG Cert. It's the opposite of my teaching.

IF: What about technology enhanced learning – even though students do not appreciate it.

X: That's the problem with the centre. The centre took away the Teaching Support Unit and installed TEL with many learning technologists, without us having actually good technology available to us that works reliably. It's like Technology inhibited learning.

T: This will put more and more pressure on us, because as the publishers lose their business with books and so forth, they expand their offerings into online learning, like we work with Pearson for our online course. An artificial need has been created to make us focus on TEL.

W: I think it's important to use it as a tool and it can be quite powerful. If I ask students to read something, I then do a quiz to check their understanding. I think students like us using online tests. Students want to demonstrate their knowledge. So, there is a role for TEL. Ebooks are now interesting as they might replace some of what the lecturer organises.

T: Students comments on the virtual OB module strongly point into the opposite direction. They do not engage with technology at home. They do not open up software. They prefer to be in a face to face environment where they see their friends around them.

X: My understanding was that the online element of the OB module was additional and not replacing it.

W: We should think about how we can use technology better to enhance the learning. Perhaps it could replace 1 hour of the face to face learning with

virtual learning instead of being obsessed with the 3 hours contact times split into 2 hours and 1 hour workshops or seminars.

T: It should rather boost the learning than replacing the contact time.

V: Students like to have contact time.

W: They definitely do but it depends what we do with the time. If we optimised our resources for the 2 hour of contact time and 1 hour of virtual learning, we would do much better.

X: Yes technology has to enhance rather than just repeating face to face teaching. For the OB module with the virtual learning there was also the confusion that students didn't know when the actual teaching took place rather than the virtual teaching.

V: And students also do not like watching DVDs as part of their face-to-face teaching and comment very negatively on lecturers who show films

T: You want to achieve equality that fits well with the BS inclusive approach. The pushback you get for change it's because it's a change of paradigms. The world is as it's now. Perhaps we should just focus on the top 10%. We should not change men either that would be wrong. It's not just what we would win, but also what we would lose. And what could lecturers gain by making those changes except more emails and more work. For students we have to understand what they are responsible for and what lecturers are responsible for. Lecturers and profs consider themselves responsible for their own destiny – and never relied on others. By working hard and taking initiatives themselves, so why should they help others. They don't want to 'save' others. This is meant on the metalevel. Why do we have the status quo? For example, in the past studying abroad was difficult, now it's easy, but in return it's worth less. Similar there are now more uni graduates, so when you have a degree you get the jobs that didn't require a degree in the past. Why are things like they are? Understanding and making a recommendation is different. It's first important to understand, and then make a recommendation how to change society. Be devil's advocate – if women want to find men who have a higher status, it's no surprise that we have a pay gap. Changing students doesn't necessarily improve the world.

IF: Thank you for your time today.

Individual faculty interview with a colleague who was unable to attend the group interview

IF received consent form from participant.

IF: What could we do to teach more skills rather than focus on knowledge?

A: Firstly, there is the disentangling of knowledge and skills. Perhaps it's possibly to teach knowledge through skills. I think we tend to default to a list of indicative content and that inevitably is knowledge driven as indicative content is framed through knowledge. We tend to want to cover things and perhaps student expectation drive that as well. So, looking back over 40 years of practice, there are only few sessions that were dedicated to skills acquisition. 5% or something like that. Mostly it's delivering slabs of stuff that goes in the knowledge box. It's custumal practice. It meets expectations. Not sure it prepares students to the rapidly changing world that we are reading about. But if you threw out the knowledge you lose claim to the cognitive area that you are delivering. So, it's a question of the balance between the two. I think we do not think about skills development systematically across provision. There might be pockets of it distributed randomly in certain modules and in certain sessions of those modules. But I do not remember really having sat down with any colleagues or having witnessed that process as a third party as an external examiner or validator. So, I have never seen anybody deliver a joined up coherent skills development across a whole course. They might pretend to and do it in dribs and drabs. Maybe sometimes at the beginning of a provision. I remember teaching access classes for mature return to learn students which were as close as you can get to skills development. There the knowledge is something you hang on the skills. And the skills tend to be the academic type skills. The other example I could think off are in the 1st week or 1st two weeks of a programme where you do some skills stuff. And the issue there is that when we finished the students found the rest of the course an anti-climax because after active weeks they had to sit down relatively passively and listen to knowledge transfer. Skills training used to go down a storm with the students. But that were study skills not skills to prepare students for the workplace. So not necessarily transferable and portable skills. But also soft skills and social skills because these people came together from different backgrounds. But then it only ever got to level 4, you see. So, you didn't have to ladle big slabs of theory at them.

IF: What shall we do to boost female students' confidence?

A: I don't know if that is necessary, to be honest. Maybe I've been blind to it. Hmm, but when I started to teach in the 70s the big problem was the under attainment of female students. So not all the stats show that they outperform guys so if they say they have a lack of confidence it is not holding them back. God help us when they start feeling confident, they are going to take over the world (laughter). The biggest under attaining group are now white male students from a working-class background. So maybe we should switch our resources to them... you know in terms of social justice... Generally, for all you should provide a safe environment and all that stuff but there you need to get into coaching but then you would need much less than 40 in the class. I think we cannot do much. I think there are so many other things going on, especially with international students. They tend to suck the oxygen out of the room so in that international context the whole gender thing gets swamped a bit.

IF: Yes, I noticed it, yet, female students for example are more conscientious

A: Yes, that chimes with me. Your research will have uncovered a lot of stuff that most of us do not notice.

IF: What would you recommend that I should do next with it?

A: Well that is beyond your paygrade I suppose.

IF: But things do not seem to change?

A: It's a bit depressing to come away saying nothing ever changes. You could pretend to change things and come up with innovative ideas and best practices. I am an 'incrementalist', kind of nudge theory. How you embody it in institutional practice or how you arrange things I do not know, well, you could focus on international students. A case study maybe of how to do it and how not to do it. Or how you are trying to do it and how it could be done better. Learn from what is not working now. There are all sort of lessons that we can take forward. But there are institutional constraints. There are deliverables that we focus on. Percentages of students getting 2:1s or whatever it is or withdrawal rates and they drive our behaviours. What doesn't get measured doesn't get done.

IF: What about scholarships for students' final year?

A: I am not a massive subscriber to prizes. It's always a bit arbitrary who gets it and who doesn't get it. Does it drive behaviour or does it just reward somebody who has conformed and that sort of stuff. So, I wouldn't regard it as a silver bullet.

IF: I felt that a workshop on articulation that I delivered with a voice coach did not meet students' expectations.

A: Yes, students' expectations is a big constraint. I always been of the view that students do not know what to exactly expect when they arrive at uni. So the first term is so important. It's important to teach students to be more self-conscious in their learning and to shape their expectations. [interruption, somebody came into the room and spoke to us]

IF: Last question: Is there not enough numeracy in our curriculum?

A: Spot on. We used to. It was part of Introduction to Business and Management. We had a specialist numeracy guy that taught a full term. The problem then was that it never went anywhere. Arguably, if you deliver skills it should be revisited and developed. It's a cultural thing. It's acceptable in the UK you can make jokes about being innumerate but nobody would make a joke about being illiterate. At open days I always thought it was a powerful marketing tool to tell prospective students that I am innumerate to not scare them off. Often they ask those sort of questions at open days and AVDs and I can say with confidence 'don't worry'. But I always feel slightly guilty doing it because I am aware that in business you can't run from figures. It just doesn't feel right if a graduate says to the employer 'Sorry mate, I do not do numbers'. So you do not do anybody any favours. So, I think it's a weakness of our provision.

IF: At BS or UK HE generally?

A: I probably have a reasonable overview of other places as I go around a lot as external examiner and I think it is generally undertaught in the sector and in particular at BS where you cannot find a trace element of it. Traditionally some places would have a quants module very early on. I have just looked at another place, Coventry, and there it is also under loved.

IF: Because of student pressure?

A: It could be all sort of things. It might well be that we cannot find the staff to do it. Perhaps there is a macro shortage of maths people that go into teaching so it is not articulated, and couldn't be delivered if it were

articulated. It could be the general anti-numeracy culture that we get in Britain which will also affect students. You know, I've coped without being numerate but then I always taught and I was never a real business professional.

IF: Thank you so much for your time today.

Appendix L: Applying attribution theory to the research findings of Phase 1

1) I vs E	2) U vs S	3) AT	4) Profile	zsc_f1	Statements sorted by order of the main student factor
i	S	2	1	-2.49	2. Being organised and planning ahead (excellent time management)
i	U	1	2	-1.76	4. Having a good work ethic / revising for a substantial amount of time
e	U	4	5	-1.7	18. Having good or excellent teachers / lecturers / tutors
e	U	1	3	-1.63	10. Having ambition for a high overall degree result
i	U	1	2	-1.09	36. Attending classes, and listening / being on task during lectures and seminars
i	S	2	1	-1.01	8. Being analytical
i	U	1	2	-0.94	31. Taking notes during classes and/or summarising topics after classes
e	U	4	5	-0.94	19. Receiving individual support from teachers / lecturers / tutors
e	S	3	6	-0.93	22. Being able to choose options / having modules that match my interest
i	U	1	2	-0.84	5. Being proactive / learning things without being asked
e	U	4	5	-0.74	15. Being in vibrant classrooms where many students participate
e	S	3	6	-0.73	20. Having excellent resources & facilities, e.g. library
i	U	1	2	-0.51	37. Asking for help when needed
i	S	2	1	-0.44	3. Being decisive and working quickly
i	U	1	2	-0.36	24. Own research / self-study (not set by tutor)
i	S	2	1	-0.35	28. Fluency and eloquence in English (writing)
e	U	4	5	-0.32	33. Having excellent peer support / students helping each other independent of friendships
i	U	1	2	-0.32	16. Being an active participant in the classroom myself
e	U	4	5	-0.27	12. Having likeminded close friends who also want to succeed
e	S	3	6	-0.22	35. Case studies (learning from practical examples of others I do not know)
i	S	2	1	-0.2	7. Being logical
i	S	2	1	-0.16	34. Being intelligent. Things seem easier for me than for others
e	S	3	6	-0.07	32. Being continuously challenged, possibly in a competitive environment
i	S	2	1	-0.03	27. Fluency and eloquence in English (speaking)
e	S	3	6	-0.01	23. Interesting and relevant core readings & unassessed homework (set by tutor)
e	U	1	3	0.02	11. Having ambition for an interesting job and/or to 'better' my current life
e	U	1	3	0.08	39. Having parents / family who are supportive of my studies
i	S	2	1	0.11	6. Being confident
e	U	4	7	0.14	38. Previous schooling
e	U	1	3	0.16	41. Having hard-working role models (family members, friends, celebrities)
i	U	1	4	0.37	47. I could achieve better grades if I were not focussed on finding a job for after graduation
e	S	3	6	0.58	14. Technology in the classroom
e	U	4	5	0.75	26. Having pastoral care / non-academic support when needed
i	U	1	2	0.81	17. Having completed a work experience / study abroad year / summer school
i	U	1	4	0.86	45. I could achieve better grades if I did not have stress outside studies, e.g. moving house, changing relationships
i	U	1	4	0.88	42. I could achieve better grades if I were not spending so much time on social media / computer games / internet etc.
i	U	1	4	1.01	46. I could achieve better grades if I did not spend so much time on having to earn money to finance my studies
e	S	3	6	1.03	21. Being assessed based on group work
e	U	1	3	1.13	40. Having parents / family with connections, e.g. to organise work placements / find employment
i	U	1	4	1.36	43. I could achieve better grades if I were not spending so much time on socialising / drinking / night life
e	U	4	5	1.46	13. Being a member of a society or club at university
e	U	4	7	1.49	30. Ethnicity, including lifestyle and culture (my ethnic background helps me to achieve good grades)
e	U	4	7	1.54	9. Having luck
i	U	1	4	1.95	44. I could achieve better grades if I did not need to focus on appearances / looking good / trying to find a partner
e	U	4	7	2.14	29. Gender (it is easier for me to achieve good results because of my gender)

Appendix M: Explanations on the application of attribution theory

Column information:

- 1) Behaviour is attributed to internal (i) or external (e) causes.
- 2) The stability dimension refers to whether the cause of the event is stable (S) or unstable (U) across time and situations.
- 3) As per Chapter 4, this leads to one of four quadrants: 1= Effort, 2=Ability, 3= Task difficulty, 4=Luck
- 4) The combination leads to seven predicted student profiles

I vs E	S vs U	AT	Predicted Profiles / Groupings
i	S	2	1. Students who think it is their own skills that they have 'intrinsically' matters - independent of uni
i	U	1	2. Students who think what they do while they study matters - independent of uni
e	U	1	3. Students who think what they have (while they study) matters - independent of uni
i	U	1	4. Students who think what they shouldn't do matters - independent of uni
e	U	4	5. Students who think it is the people they are now at uni with them (to a certain degree controllable)
e	S	3	6. Students who think it is the environment that has been created for them at uni matters (non-people)
e	U	4	7. Students who think it is fate / unchangeable things from the past (e.g. luck, ethnicity, gender, previous schooling) - uncontrollable

Distribution of attributions for the 45 statements of Phase 1

Count	Profiles
8	1
8	2
5	3
6	4
7	5
7	6
4	7

e	23		
i	22		
S		15	
U		30	
1			19
2			8
3			7
4			11

Appendix N: Recommendations for future ‘Adapted Q-methodology’ studies

1. Sign up to the Q-methodology listserv which Prof. Steven R. Brown maintains (email LISTSERV@LISTSERV.KENT.EDU and write in the title line SUBSCRIBE Q-METHOD).
2. Take time to develop a comprehensive concourse and a meaningful Q-set, both in line with traditional Q-methodology. All findings stem from there.
3. Data collection: I recommend using software for online sorting, for example QsorTouch. I also recommend to not ask participants to do the first sorting into three groups and grouping / placing items on a pre-defined grid but to ask participants to rank statements by sequential numbering as this seems to be more intuitive for participants (in this case students of the Generation Z).
4. Q-data analysis and interpretation: After converting rankings into Q-format, I recommend using R-programming on Anaconda and to follow this cookbook: <https://github.com/aiorazabala/qmethod/wiki/Cookbook>
5. R-data analysis and interpretation: Using Excel to calculate geometric and arithmetic means, do correlation analyses to check for trends, and then use variables that show an interesting correlation for statistical significance and Cohen’s *d* effect size calculation.
6. Ask participants to provide qualitative comments on their rankings (as per traditional Q-methodology) and conduct additional interviews or focus group discussions.
7. Use the adapted Q-methodology also to evaluate perceived effectiveness of activities in the classroom.

Appendix O: Autobiographical researcher insight and reflective metacommentary on changes I have made to my own professional practice and the impact I have had on others during my doctorate

Completing a professional doctorate in education provided a framework to guide my personal reflective journey to become a more rounded educator. It also allowed me to be further embedded in a network of professionals who are equally passionate about education and/or Q-methodology. I saw the EdD as an opportunity to strengthen my knowledge and skills while working on a research topic that has been so far under researched and that I care deeply about. Disseminating research findings is important to me. In addition to drafting publications, I presented at several national and international conferences, e.g.

- 35th Annual Q Conference for the International Society for the Scientific Study of Subjectivity 2019, Naples: *Gen Z's perceptions of factors impacting academic and employment outcomes: an adapted Q methodology study.*
- National Annual Advance HE conference 2019, Newcastle: *Unpicking the verbal communication and confidence gap: skills desired by employers and students alike, yet mainly unaddressed in HE in the UK.*
- National Annual Advance HE surveys conference 2018, Leeds: *Using Q-methodology to understand the perceptions and opinions of students or staff.*

Throughout my five years of study and research I gained a better understanding of abductive reasoning to discover GenZ students' viewpoints as 'truthfully' as possible. I started with observing the 'as near as possible' consensus of different student segments to seek the simplest and most likely explanation. By doing so I was able to refresh my 'ex-post-positivist' IT /

coding and statistics-related expertise. For Q-methodology I am now part of two networks, one at CCCU and one in the town where BS and a further university is located.

I was very impressed by the participating students, especially in the qualitative focus groups, who demonstrated a growth mindset and generally believed that we all can improve our abilities and are in control of our destiny. Of course, on this point, I disagree with students because as outlined throughout the thesis, there are some segments of students who could receive, while at university, more relevant future-proofed education. As explained, ‘somewhere between the classroom and the cubicle the rules change and [the students turned graduates] don’t realize it... The requirements for adult success are different’ (Kay and Shipman, 2014, para. 46).

One area that is currently neglected in UK HE is boosting students’ ability – and confidence in ability – of individualised verbal communication skills. I explained throughout the thesis that there seem to be many reasons for doing so, one of them is that teaching excellence is a less sought-after ability in HE than research excellence. And even lecturers who do prioritise their teaching commitments over their research commitments do not seem to have the ability or the time to coach students to improve their effective communication and influencing skills.

So what have I specifically implemented to enhance the students’ verbal communication and influencing skills? My approach has been multifaceted. In addition to the conferences mentioned above, I have changed my teaching and assessment practice, and worked on two interdisciplinary projects.

As for teaching and assessments, my classes now have a 10% weighted oral component across all modules on the MBA course that I convene and similarly, there is a 10% weighted oral component across my undergraduate modules. I have implemented an individual interview-style presentation /

elevator-pitch - without visual back-up - as part of the Critical Perspectives module which is weighted at 20%. These components will reach 400+ students annually and 2,000 students over the next five years.

I have also encouraged colleagues to change their habitual teaching approach by fostering a post-course consciousness pertaining to their own approach and also by conveying a sense of post-course consciousness in students. I have achieved demonstrable impact both at BS and at a different university where a former member of BS staff moved to: in both universities there are now compulsory verbal communication and presentation classes in year 1.

In addition, I am currently working on a project on curriculum design in the area of sustainable finance and socially responsible investing as PRME South East England lead. As part of this project I focus on a balanced and holistic curriculum, encompassing knowledge and skills via roleplays. A further roleplay and acting activity that my MBA students participated in was during an international study visit. The German Federal Institute for Risk Assessment invited students to imitate a press conference, including microphones. Some students took the role of reporters from different media outlets and consumer groups, and others took the roles of government officials. This roleplay combined applying knowledge with critical thinking while practising verbal communication skills in a different business context. It was encouraging to see that the students, even those meant to be representing minor consumer groups, were very engaged. By playing different roles from their usual ones, students seem to adopt new stances. By being able to choose their roles and stances in a new environment, students are encouraged to see themselves as authors of their own life which, in turn, seems to encourage student agency. Having a dialogue with others who tell different stories in a different vocabulary from themselves (Larochelle, Bednarz, Garris, 1998) also contributes towards closing the skill gap identified by Moore and Morton (2017), who talk about the need to learn how to adapt communication skills to ‘the distinctiveness of all communicative

situations' (p.604). An enactive approach, e.g. roleplays and acting, can go beyond semantic articulation to connect students with additional dimensions of the body, such as feelings, and thus provides what is seen as an Eastern perspective (van der Schyff, 2015). Enactivism also allows for observers, with an observer adding significance to others (Simmt and Kieren, 2015), and hence possibly being a way to reduce native-speakerism and the home/international student divide. Students might thus have better opportunities to become the author of their own life (Garrison, 1996).

In addition to curricular student-facing activities, I am involved in two communication-related co-curricular interdisciplinary working groups.

The first one is intra-institutional where a colleague from the School of English and I created a cross-School initiative to support students who have been awarded reasonable adjustments for oral presentations. We both feel that rather than offering students an alternative assessment as per BS' reasonable adjustment policy, we should provide students with the option to receive help and support to develop into confident communicators.

I have also set-up a 'communication group' with lecturers and non-HE contacts from across three continents to exchange ideas on what we each can do to ensure that communication skills are not an inhibitor but rather an enabler or accelerator for transforming selves and contexts. This was the list of possible discussion points and questions that I produced ahead of our initial call:

- o Overarching or conceptual themes
 - Communication skills as inhibitor, enabler or accelerator for transforming selves and contexts.
 - Language and gender in the workplace.
 - Communication theory in dialogue with gender and organisational theory.

- Communication skills and gender through a discursive, Foucauldian lens.
- o At societal level
- Factors that affect prejudices around the oral communication process: volubility, vocabulary, accents, body languages, confidence, filtering, etc.
 - The influence of cultural differences on oral communication skills.
 - Are oral communication differences influencing employment choices, e.g. fewer female politicians?
- o Pre-work experience
- Deprioritisation of communication skills in (Higher) Education.
 - What can be done in (Higher) Education about related soft skills to disrupt perpetuating gendered soft-skills inequalities?
 - Communication to define power relationships, e.g. between educator and learner.
- o In the workplace:
- Communication skills as a root cause for gender inequalities in the workplace.
 - Do oral communication skills affect employability and career progression, and if yes, how?
 - The relation of communications skills with other capabilities, such as emotional intelligence, cultural intelligence, teamwork skills, leadership skills, thinking skills, decision making skills, etc.
 - The relation with sub-systems in companies, such as management information systems, learning organisation, corporate / company culture, power relationship between line-managers and followers, mentorship.

- How to create global communication patterns, especially for multinational companies?
 - Intra- and inter-company communication as ‘shibboleths’.
 - Differences of communication skills and techniques between female and male leaders.
- o The future of communication:
- How will communication skills be affected by the new digital era?
 - How does artificial intelligence (AI) and industry / IR 4.0 affect communication skills requirements?
 - How will communication be redesigned in the new workplace: do we need more communication, better communication or more effective communication?
 - How will communication be redesigned or practised in relation to virtual teams or diverse workforce?

Finally, to draw this thesis to a close, I would like to leave readers with a student module evaluation comment, voiced at the end of my most recent Critical Perspectives teaching:

‘The [individual] oral presentation is extremely useful and I think it is a better way to assess students in higher education as it relates to the real world more. It prepares you for meetings, interviews etc. and this was the only opportunity I had at BS to do anything like that on my own. It also gives you an idea of how to improve.’