Evaluating a curriculum map for undergraduate medical education: a critical analysis through different stakeholder lenses

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Declaration

I, Faye Sara Gishen, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Faye Gishen, September 2020

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Abstract

In 2018, UCL Medical School commissioned a programme ‘Curriculum Map’ (CM). As the project’s lead, I theorised, designed and co-constructed the CM. My adopted theoretical position equated curriculum with *syllabus*, acknowledging that whilst this reflected the ‘formal’ curriculum, it did not capture the ‘informal’ or ‘hidden’ curricular elements. This doctoral research is a retrospective critical examination of the CM exercise.

The professional practice problem addressed was whether the CM was judged by users as being ‘fit for purpose’. To address three research questions, the attitudes of key stakeholders (students and self) were analysed, examining the CM’s perceived purpose and drivers and asking whether it had accurately reflected the *whole* syllabus, including the professional ‘soft skills’. The role of institutional and national educational metrics in curriculum mapping was examined.

An interpretivist paradigm using a novel ‘bricolage’ methodological framework of self-study and hermeneutic phenomenology was used. This blended approach drew on meaning and interpretation of data. Multi-method data collection was used to generate three discrete datasets (autoethnographic data; pan-student primary survey; student focus groups), which were synthesised using reflective thematic analysis. Descriptive statistics were used to analyse limited quantitative data. The findings were triangulated, looking for congruence in overall arguments.

Data from stakeholders were synthesised into five themes; power in medical education *(metrics drive practice, assessment drives learning)*; troubling trustworthiness, fairness and social justice; the hidden curriculum of *'hard over soft';* navigating uncertainty and finding compromise; and building legacy. Different stakeholder lenses brought convergence and divergence to the data. My multiple positionality brought personal (reflexive), professional and political lenses to this 'insider research'.

As other UK medical schools are undertaking CM projects, it is anticipated that this work will have impact for the undergraduate community of practice. It may also have broader relevance in postgraduate medical education and other healthcare disciplines.

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Impact Statement

The impact of my EdD thesis research could be considered significant. This professional doctorate is grounded in the practice-context of participants and the impact has been profound for me as a clinical academic. Medical education has historically been slow to embrace educational theory, but through engaging with scholarship, the new generation of undergraduate medical educators is signalling an intention to embed theory into practice. Through contributing to this shift begun by predecessors, I now bring an educational bias and theoretical underpinning to practice.

This research examines the purpose and drivers of a medicine programme (MBBS) curriculum map (CM) and asks different stakeholders whether it has proven fit for purpose in reflecting the *whole* curriculum, including the 'soft' professional skills. It is the first research in the field to use a student and educational leader lens. It adds a political slant by examining the role of institutional, national and regulatory metrics in this CM exercise.

This work mirrors clinical practice in balancing multiple stakeholder agendas. The development of the CM has depended heavily on relationships; with patients, students, colleagues and the Institution. National networks have also been important in the project. An unorthodox bricolage conceptual framework is used to address the research questions, with the complexity of the methodology reflecting the diverse agendas of stakeholder groups. Its theoretical lens has

given it originality and creativity, moving it away from purer social science research strategies.

This research has been conducted during a time of societal and higher educational disruption. Despite its limitations, it has produced tentative but powerful insights and findings. It has generated understanding about what medical students want from a CM, highlighting the strong interrelation of curriculum, pedagogy and assessment. Viewing the findings through different lenses has produced congruent themes, which show convergence and divergence as they mean different things to different stakeholders. This exercise has demanded flexibility and compromise.

Future opportunities are presented and are already manifesting. Aside from having personal impact on me as an education leader, this unique research has wider impact. It has begun to be showcased, winning two institutional awards and generating oral presentations at international conferences. Publication in peer-reviewed journals should follow. Although unlikely to shape national policy, through being presented through national platforms, it can gain impact within my community of practice as well as in other healthcare disciplines mapping their curricula. This research also has potential impact for students and higher education institutions as it points to CMs contributing to improved student satisfaction and student experience (particularly around assessment).

This work is aspirational as it has given students agency in construction of a pedagogical tool. It has undoubtedly led to my own development and improvement as a practitioner; which resonates with one of the aims of the blended self-study methodology used. I consider this work to be a springboard towards more scholarly practice in undergraduate medical education, leading to more evidence-based and robust professional practice. Ultimately, its aim is to produce practitioners equipped to deliver optimal patient care.

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Reflective statement

In this section I reflect on my Doctor in Education (EdD) journey, outlining key milestones and linking what I have learned to my practice as a clinical academic.

In the beginning…

The seeds for my EdD were sown in 2015 when I developed an itch to make my educational practice more evidence-based, encouraged by my academic line manager at UCL Medical School (UCLMS), Deborah Gill. At the time I was purposefully crafting a portfolio career, moving away from undertaking predominantly clinical work. Happily, this academic venture was also supported by my clinical colleagues. It took a year to psyche myself up to study again in my mid-forties, but I eventually applied and started the programme in September 2016. I was interviewed by Denise Hawkes (who subsequently became one of my supervisors).

A rocky start

I would say, in retrospect, that I did not enjoy the first six months of the EdD programme. Firstly, I was still wrestling with not undertaking a PhD, in favour of an EdD. Secondly, whilst I had always hugely enjoyed reading fiction and saw myself as a frustrated writer/novelist, I did not particularly enjoy the reading that was required. I was initially sceptical, and noted in my reflective statement in year 2 that I had a *'whiff of arrogance'* (Gishen, 2017, p.1) about me when approaching the issue of professionalism posed in the first taught module,

Foundations of Professionalism (FoP). Being a doctor is a key part of my personhood, shaping how I live and how I see the world. I had been inculcated over decades with the values and hidden messages of medicine and wrote:

> '*As a physician I was unquestioningly a professional, surely? To question otherwise felt heretical.'* (Gishen, 2017, p.1)

However, I was beginning to question previously incontrovertible and sacred beliefs. FoP gifted me a generous tutor, who encouraged me to base my first taught assignment on a 'critical incident' and reflect on how this had impacted on my professional development. I therefore began to experience reflexivity in action. I wrote:

> *'Considering what constitutes professionalism has enabled me to question and challenge assumptions'* (Gishen, 2017, p.2)

To question long-standing assumptions was illuminating, but also disruptive. I began to dissect the true meaning of being a professional; what it meant to me and my patients, and how professionalism contributed to hierarchies, boundaries and power imbalances.

Tentative steps

FoP was followed by Methods of Enquiry (MoE 1&2) which I enjoyed. I found some of the terminology and concepts in the social sciences hard to grasp, and grappled with the new world of ontologies, epistemologies and interpretive approaches. I was beginning to question the 'gold standards' which I had

unquestioningly accepted. I noted in my reflective statement that I was starting to recognise my previous *'tunnel vision'*.

The writings of Donald Schön with his *'swampy lowlands'* (1983) of professional practice resonated with me in a clinical speciality where uncertainty was part of the terrain. I reflected:

> *'[The world of quantitative, positivist data] can be a delightfully secure place to inhabit, one in which Schön's 'swampy lowlands' are rejected in favour of black-and-white truths'* (Gishen, 2017, p.2)

Doctors have been traditionally inculcated to be problem solvers, and many have a disdain for the 'grey'. As a palliative medicine physician though, both uncertainty and reflection had long been central to my practice. I regularly took part in clinical supervision, reflective Schwartz Rounds and a weekly clinical forum to make sense of the world of death, dying and witnessing patients' suffering.

I appreciated the taught courses and structure of the first year of the EdD, (that I would not have had in a PhD) as being stepping stones to this more sophisticated and in-depth enquiry, especially in the context of a busy personal and professional life.

<u>Discovery</u>

For my Institution Focused Study (IFS), as UCLMS' academic lead for professionalism, I wanted to research and understand medical students' attitudes to and challenges around engagement with reflective practice. Whilst reading around reflection, I was deeply moved and affected by a poem written

by an American medical student in which she likens herself to a sharply pruned piece of topiary.

Reflections of a Pruned Medical Student (Hill, 2008)

'My sculptured shape is chiselled

By shears too sharp to see

For pruning is the price I paid

For this topiary me'

I was curious about the 'cruelty' that this poem implied and wanted to gain an insider view (perhaps heightened by my own children approaching university age at the time). This poem also resonated with discussions I had had with a medical student (subsequently a collaborator) about the *'betwixt and between'* liminal space that medical students inhabit (Gishen & Zervos, 2019). I too have been in a liminal space as a doctoral student. This poem certainly influenced my use of poetic narrative in the self-study element of this thesis research.

The IFS provided me with an opportunity to start looking into this *'inner world of medical students'* (Shapiro, 2009). I was encouraged that my IFS led to tangible changes in the Medical School's 'reflective curriculum', as I was able to implement some of the co-pedagogies that emerged from this work. At around this time, I started the UCL Leadership in Education course and learned more about generational attitudes to higher education. I became interested in how generational learning and reverse mentoring could be adopted into practice. This course has had significant impact on my approach to medical education.

The thesis

The first two years of the EdD acted as a bridge to this thesis. Around this time, a close EdD student colleague exited the programme and this unnerved me somewhat. However, with the support of my family, supervisors, colleagues and my mentor, I pressed on. Much of my data gathering and write-up has taken place on a background of disruption; Brexit, Covid-19, lockdown and Black Lives Matter and recently, the A level chaos of 2020. This EdD provided an anchor and a creative haven which kept me focused (adrenaline can be quite rewarding!). However, whilst offering an important sanctuary during turbulent times, the thesis has also been a mixed blessing; I have been balancing an increased clinical workload with my leadership duties, running one of the largest programmes at UCL. This has been immensely challenging. Producing this thesis has required fortitude and determination; I have drawn on the stability and certainty of my family.

I acknowledge that I have been working at the 'jagged edges' of practice. However, having the diversity offered by a portfolio career has been nourishing and sustaining. I have benefited from following a distinguished lineage of talented and visionary clinician educators. Several of them have provided, along with my supervisors, invaluable critical friendship through this process. This has given me the courage to work in difficult territory, considering some of the 'wicked problems' of practice and doing this with self-awareness and insight. Both the CM project and this post-mapping critical analysis have hinged on flexibility and compromise.

This doctoral work has been important as it is given agency to students in a changing higher education landscape in particularly uncertain times. It has also given me confidence to question my assumptions, apply reflexivity to my practice and work with authenticity. It has provided me with tools to challenge colleagues who believe that medical education is the poor relation of clinical work and clinical research. It has injected rigour into my practice and helped me to understand that professional judgement alongside arithmetic (metrics) is key to leadership. The EdD foregrounds my intention to work as a more reflective practitioner, bringing a stronger educational theoretical lens to practice.

Studying on the EdD with students from other disciplines including education, economics and accountancy, has been rich and invigorating. It is clear that we have many common problems and transferable skills.

Becoming a reflective practitioner

Having had my views challenged over the past few years has provided the biggest paradigm shift in my thinking and self-development. I notice that my language is more tentative and less emphatic. My stance is more self-critical, more questioning and balanced. I feel that I am beginning to approach research in a more scholarly way. I feel more knowledgeable in an academic environment and better able to defend my views. I feel like I am beginning to find my niche and position myself within the field, tentatively, slowly. I appreciate being cited by the academic community.

The nuances and sequelae of conducting insider research described by Robson (2006) amongst others, has added a layer of political complexity to this research. In Schön (1983) and Dewey (1902) I began to recognise allies and kindred spirits. I am aware that I am beginning to resemble Schön's true 'reflective practitioner' (Schön, 1987).

However, a concept that I discussed with a clinical colleague was whether it was possible to become overly reflective and reflexive, erring into less constructive 'perfectionist', territory. I wrote:

> *'I think it's possible to become too self-critical and too reflective, both clinically and educationally. I can't find reference to this in the literature, so I'm going to draw from medicine and call this threat being* ***'pathologically reflective'****.'* (FG, 2018)

I have become more measured about receiving critical feedback. I have come to appreciate that (usually) it is not personal but comes from a position of 'critical friendship'. This mainly came from dRS (my primary supervisor) and initially incited strong emotion in me, but I recognised that this reflected my large emotional investment in the EdD and the sacrifices made to produce this research alongside the challenges of professional and personal life. I acknowledge that I have had excellent guidance from tutors and supervisors, which has sustained me, and for this I am very grateful.

I am learning to hold and tolerate the unanswerable questions, blending this with a cultural background of doctor and 'problem solver'. I realise that as an early career researcher, I am gravitating towards becoming a social scientist – and I like it.

To have undertaken research in an area that will hopefully directly impact my daily work is exciting, and captures the essence of the EdD. To be able to evidence and defend pedagogical decisions is empowering. To be able to know and understand is scientific and powerful. I reflected that:

> *'There appears to be no 'hard' end to the EdD journey. Maybe this is the beginning of an intellectual, professional and personal exploration...'*
> (FG, December 2019)

The term 'EdD journey' makes this sound like it has been an adventure. Has the EdD been soul-searching and painful at times? Yes. Would I do it again? Yes!

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Chapter 1: Professional Practice Problem

> *'Medical education appears to be in a state of perpetual unrest'* (Cooke et al, 2006, p.1339)

> *'The status quo is not an option….'* (Harden, 2018, p.1010)

In this brief opening chapter, I lay out my professional practice problem and three research questions for my thesis. In Chapter 2, I proceed to outline the background to this issue in detail and contextualise the personal, professional and political context for my doctoral research.

In 2018, UCL Medical School (UCLMS) commissioned a 'Curriculum Map' (CM) of the six-year undergraduate medicine course (Bachelor of Medicine, Bachelor of Surgery, 'MBBS'). Prior to this project, a course curriculum map had not existed. I was appointed as the CM project's academic lead in October 2018. With only little guidance or national consensus around curriculum mapping in undergraduate medicine available, I theorised, designed and constructed the CM from scratch with a small team over a 10-month period. The CM was launched to students and staff in September 2019.

This research is a post CM-project critical examination of the CM exercise. If my thesis were to be condensed into a single sentence, it would be to examine why the CM project arose and whether, seen through its users' lenses, it has achieved what it was imagined to. My professional practice problem is examining whether the CM is 'fit for purpose' using a post-project analysis

involving key stakeholders' views (students and self). I situate this enquiry within the regulatory guidance and higher education landscape. I acknowledge that this research sits on a turbulent background of the Covid-19 pandemic and its effects on medicine and medical education. I use this opportunity to rationalise and sense-make around the project. I locate myself in it, and partly through the methodology of self-study, incorporate my own perspectives on the project to understand its drivers and recognise my own biases. I reflect on my positionality and the complexities of undertaking *'insider research'* (Robson, 2002) within my own institution.

Exploring and interrogating some of these drivers has been key in igniting this thesis enquiry. Indeed, considering and disturbing the driving forces underpins the first research question addressed in this work (p.24). My second research question addresses whether or not the CM has successfully captured the '*whole*' curriculum, which itself invites questions around the definition of 'curriculum', with my theoretical frameworks significantly impacting on the interpretation of this (see Chapter 3). The third research question asks whether the non-technical, professional 'soft skills' have been adequately represented in the CM. All my research questions invite enquiry into the 'real story' behind this exercise, and with this comes an exploration of traditions and power within medical education. I analyse the views of key stakeholders (students and self), whilst acknowledging that other key stakeholders, including patients, are not researched in this thesis. In order to represent these different lenses, I adopt a blended theoretical framework and multi-method data collection, creating a novel methodological approach.

Research Questions

- **What do stakeholders involved in curriculum mapping perceive the project's purpose and drivers to be?**

- **In what ways does the UCLMS Curriculum Map reflect the syllabus, and how do the stakeholders judge this?**

- **How effectively does the CM capture the *whole* curriculum, including professionalism and other 'soft' skills?**

I believe that in a highly research-active institution like UCL, dedicated and specialist medical educators should be responsible for curricula underpinned by evidence; this doctoral research contributes to such an endeavour. As several other UK medical schools are also currently undertaking curriculum mapping projects, my work has relevance to the undergraduate medical education community, as well as more broadly to postgraduate medical education and other spheres of healthcare education, such as nursing. Not only can I personally learn from this work, but others can hopefully too.

To offer the reader an insight into why I am researching this area, I introduce myself here. I am a clinical academic; a consultant physician in palliative medicine and an undergraduate medical educator, with a growing interest (largely inspired by the Doctor in Education Programme, EdD) in educational scholarship. My clinical specialty is an inclusive, multi-disciplinary and holistic

branch of medicine, and I have tried to bring this ethos to my research. In early 2019, I was appointed as the Associate Head of the UCL MBBS programme. Through this role, I gained a seat at the national table, joining leads of the 41 UK medical schools represented through the Medical Schools Council (MSC). This has enabled me to increase my influence within my department and faculty, to a modest extent more broadly within the University, and even to have a (quiet) voice at national level. At a recent MSC Education Leads meeting (February 2019), a colleague said on learning that I was undertaking the CM project:

> *'So, when you are done, you can tell us all how to do it!' (RG, senior UK medical educator)*

I am also UCLMS' lead for the Professionalism module and I have been exploring, throughout this professional doctorate, how professional identities (and apprentice professional identities) are evolving in a complex environment where traditional power hierarchies are being disrupted (see Chapter 2).

Being a physician situates me culturally in the positivist stable. However, in my thesis I challenge myself by moving away from the familiarity and security of positivism's reductionist 'hard' data, into researching within interpretivist paradigms. Here, meaning and interpretation are attached to the lived experiences of 'stakeholders', contrasting with traditional medical research, into which I have been conditioned throughout my professional life. The epistemological approach adopted here is experimental and searching; this has required open-mindedness on my part.

However, the reader will notice that despite moving away from traditional medical research methodologies, I retain my ‘physician’s voice’ throughout this thesis. My writing is littered with medical references and analogies; I cannot (and do not wish to) completely separate from ‘home’. Despite doctors rarely writing in the first person (as this is normally considered counter-cultural), in this thesis I apply the professional ‘I’ and ‘eye’ by incorporating the ‘*autobiography of the question*’ (Miller, 1995).

By acknowledging my positionality, I bring multiple perspectives to this project; those of senior education leader, manager, physician, student, and mother of university students. In addition, I bring the reflexive prism of being a patient. Or, in this era of ‘person-centred care’, I offer the even broader lens of citizen, or human.

Chapter 2: Background

> *'The world of medical education is more complex than ever and there seems to be no end in sight.'* (Mennin, 2010, p.20)

2.1 Introduction

Having briefly introduced my thesis and research questions in Chapter 1, I now lay out in detail the background to this matter and offer the rationale as to why and how I approach this research. I introduce the CM project and contextualise it within the current terrain of higher and medical education. In laying this groundwork, I underpin my subsequent literature review, methodological frameworks and theoretical perspectives. Following these chapters, I spend a significant portion of my thesis presenting and analysing the data gathered using my multi-method approach. Each dataset has a separate chapter dedicated to it. The findings are then synthesised holistically. Towards the end of my thesis, I present my discussion and consider how effectively my theoretical frameworks, methodological perspectives and methods have enabled me to address and answer my research questions, and thereby my professional practice problem. My thesis ends with a conclusion and some final reflections on my doctoral journey. In signposting this route to the reader, I hope to provide a cohesive path throughout this academic endeavour. As is good practice in clinical medicine, I offer a 'handover' at the beginning and end of each chapter to assist the reader with the flow of the thesis (particularly to facilitate reading it in instalments) and to provide a congruent narrative.

2.2 Articulating the drivers for the curriculum mapping project

At the CM project's inception, some of its drivers were overt and others were not. The principal articulated aim was to meet and demonstrate compliance with the medical regulator's (General Medical Council, GMC) blueprint for undergraduate medical education, *Outcomes for graduates* (2018). However, other drivers were covert; namely to address poor organisational metrics and student experience around assessment. UCL medical students consistently rated the transparency and clarity around the content of their course and assessments poorly: in short, they wanted a syllabus.

Background scoping conversations around the time of commissioning and construction of the UCLMS CM revealed different stakeholder groups' 'wants and needs' from this electronic map: here I outline these varying agendas. The University has a 'political' stake in using the CM to address and ideally improve, national and institutional metrics around student satisfaction, including UCLMS' persistently low National Student Survey (NSS) scores in the domain of assessment and feedback. Below is an excerpt taken from the UCLMS NSS data (see also Appendix 1):

UCLMS National Student Survey Summary: a comparison of 2017 & 2018

Qu No	Question	2017	2018	Variance
Assessment and feedback		**59%**	**49%**	**-10%**
8.	The criteria used in marking have been clear in advance	56%	46%	-10%
9.	Marking and assessment have been fair	79%	59%	-20%
10.	Feedback on my work has been timely	49%	43%	-6%
11.	I have received helpful comments on my work	52%	48%	-4%

Multiple negative comments were made about the assessment of the MBBS programme relating to:

a lack of curriculum for guidance on what could be examined

Comments included:
'minimal guidance in the way of a curriculum (and the one that exists, is incredibly vague), little transparency with respect to examinations structure and what is considered 'examinable content'.

Figure 1: Snapshot of UCLMS' NSS 2017/18 data with regard to the lowest scoring domain, 'Assessment & Feedback' (with free text comment)

Poor metrics, particularly those that are publicly available like the NSS, can threaten the University's reputation and consequently its income, through a reduction in student numbers. Although not overtly articulated, I believe that this threat was a potent driver for the commissioning of the CM, in anticipation that its production could result in more favourable student feedback. The Medical School also potentially stands to gain from improving its local metrics, including Student Evaluated Questionnaires (SEQs) and Student Staff Consultative Committee (SSCC) feedback. These data feed into the University's rolling programme of peer review (Internal Quality Review, IQR) and institutional feedback (UCL Student Experience Survey, see Appendix 2: Annual Student Experience Review, ASER). Such data can be used to attract future students, showcase good practice and highlight areas for improvement as well as fuelling a 'naming and shaming' culture by shining a light on areas that students are critical of.

The medical regulator (GMC) also uses some of these national, institutional and local metrics to compile and publish the Medical School Annual Return (MSAR) which benchmarks and quality assures UK medical schools. Following the release of *OfG* in 2018, the GMC have requested additional data from all UK medical schools evidencing compliance and curricular modifications made in accordance with the learning outcomes outlined in their national blueprint. Therefore, in addition to the University's and Medical School's 'wants and needs' from the CM, the regulator also stands to gain from its production by using it to demonstrate compliance with their guidance. There has historically been a powerplay between the regulator and medical schools, so in implementing and mandating concordance with this blueprint, the GMC's power could be said to be perpetuated.

As previously outlined, students, as the main stakeholders, wish to use the CM to improve their educational experience, chiefly in having a clearer framework for learning and assessment. The ultimate 'client' (the patient or citizen), may be less concerned with the mechanics of education and its associated metrics, and simply wish to be treated by emerging doctors who are safe, competent and compassionate. I, as another key stakeholder, acknowledge my desire to create a product that meets some of the stakeholder needs, whilst hopefully creating a valuable pedagogical tool, and preserving my academic reputation. All the parties outlined above represent audiences who stand to profit (or possibly lose) as a result of this work.

Therefore, this multi-layered project could be perceived as having multiple agendas, both named and unnamed (Table 1, below). It could also be said to be meeting 'short fixes' (production of an electronic map, GMC compliance) and 'long goals' (improvement in student experience metrics, springboard to dynamic whole curriculum review). To use a medical analogy, this project involves dissecting the MBBS to build a CM, before subsequent work can result as its legacy (discussed in Chapter 11).

Articulated outcome	**Unarticulated outcome**	**Constraints**
Produce a Curriculum Map to meet *Outcomes for graduates (2018)* & evidence compliance for the GMC (regulator)	**Improve metrics**, including: *National*: National Student Survey *Institutional:* Teaching Excellence Framework, UCL Student Experience *Local*: Student Evaluation Questionnaires, Student Staff Consultative Committee, Unitu (real-time feedback platform)	Manpower Money Time Technological resources

Table 1: Summary of curriculum mapping project outcomes and constraints

Whilst acknowledging some of these drivers, I have tried to resist becoming so influenced by them that I lose the objectivity that enables me to be an effective and critical practitioner. In this work, I seek ways to blend the practical, political and moral elements in this critical analysis of the CM, just as I would endeavour to do in clinical practice. As a 'scientist' grappling with the pedagogue, one of my supervisors (DH) framed my EdD journey as a surrogate for an academic

Hippocratic Oath (as outlined by Sohl & Bessford, 1980), which I found to be a helpful analogy.

2.3 A changing landscape in higher education

Here I consider some of the wider forces at play in higher education (HE). Alongside other sectors, HE has been affected by globalisation: the phenomenon describing how organisations develop an international reach. With this comes an expanded marketplace and competition. Higher education institutions (HEIs) have evolved into more financially savvy institutions, branching into corporate ventures to commoditise and commercialise learning. This has become particularly apparent since the introduction of student tuition fees (1998). For example, UCL Medical School has a dedicated international income-generating department, the 'Medical School Education Consultancy', which has raised large sums by franchising the UCLMS brand abroad, and has been rewarded for its entrepreneurship by winning accolades and awards (UCL Spirit of Enterprise Award, UCL, 2016). The prosperity of the Medical School, and more widely the University, rely on the success of such corporate ventures. Some scholars argue that such activity contributes to commodifying and devaluing medical education (Pellegrino, 1999). Brody and Doukas (2014) say:

> *'…commercialisation and commodification of medicine are among the most important threats to professionalism today, and students are immersed in a world that views every aspect of human life as occurring in a marketplace'* (p.982)

The marketisation of higher education has resulted in the framing of students as ‘customers’ in their education. Consequently, the relationship between student, educator and institution has become more transactional in nature. Although many pillars of the undergraduate medicine course remain unchanged, the current climate in higher education is barely recognisable from the one that I knew as a medical student in the 1990s. There has been a power shift, away from the paternalistic model of teacher as dominant partner and student as subordinate. This mirrors the move in medical practice away from doctor as dominant player and patient as subordinate.

The competition accompanying marketisation has resulted in an increased onus on measurement and metrics. This is evident within the NHS too, where metrics- including waiting times, discharges and death rates- are used to rate and rank services. These data may present a reductionist view of the holistic art of clinical medicine and risk quashing ‘softer’ data including patient experience narratives. In HE too, qualitative data risk becoming suppressed through the dominance of quantitative metrics including the National Student Survey (NSS) and Teaching Excellence Framework (TEF). These place greater value on numbers and lend themselves more sympathetically to positivist disciplines (e.g. economics) than to fields that fit more naturally with qualitative methods, including education and the social sciences. These, in turn, are linked to promotions criteria in the wider HE sector, perpetuating perceived inequalities. Until these deemed ‘soft’ data form part of the recruitment and promotion opportunities for staff, they will be regarded as extras rather than ‘core’. Amanda Spielman (2019), in her role as Ofsted Chief Inspector, counters this

dominance by discussing moving the focus away from 'political' metrics to the '*real substance of education: the curriculum'* (Spielman, 2019). She calls for the curriculum rather than the data, to (re)take centre stage.

One could ask whether the metrics-driven positivist approach therefore shortfalls the whole picture. Balla et al (1989) highlight the potential rigidity imposed by metrics:

> '*…educational developments within the framework of existing institutions can occur, but these must take into account the needs of the institution…teachers will need to appreciate where their students stand'* (Preface, p.vii)

Dore (2019) highlights this tension within medical education:

> *'…figures versus what is right for the student; these two interests or objectives are seldom aligned'* (p.13)

Meanwhile, students strive to be recognised not as numbers, but as individuals. This mirrors the narrative of patients wanting to be treated as individuals in the era of 'person-centred care'. Both groups wish to have a voice and be heard. This is happening alongside a societal drive for people, especially those from marginalised groups, to speak up and for the principles of equality, diversity and inclusion to be actioned (UCL, 2020a). Indeed, I have been crafting this thesis whilst movements including Black Lives Matter and #Me Too have been challenging societal attitudes: I return to this influence throughout this work. The momentum of such movements has led to a call for politicians and leaders to '*establish a sense of urgency'*, which Kotter (2012) describes as being the first crucial step in creating institutional change. Indeed, from conversations with

UCLMS leaders, many considered that the CM was commissioned to satisfy the student voice and improve institutional metrics, and that this compelling combination generated such a sense of urgency.

Medical educators could be accused of contributing to a metrics-driven culture by ranking students according to examination results. A key example is the UK Foundation Programme, that places newly qualified doctors in their first NHS posts, using the Educational Performance Measure (EPM) calculated through a two-point performance ranking system. This results in significant competition, as described by a UCLMS alumnus:

> *'I write this with the intention of shedding some light on the rollercoaster ride that the decile system can be for a student… I was so obsessed by aiming for the top spots in the year… I couldn't compete with my super-ego criticising myself and reminding me of my prior 'failures".* (KJ, with permission, 2019)

The General Medical Council (GMC) regulates both clinical and medical educational spheres and also uses multiple metrics (p.30). In 2017 an additional regulator entered the frame: the Office for Students (OfS). Its business is ensuring national quality and standards, drawing parallels with the GMC, which promotes quality and patient safety. Comparing the organisations' straplines demonstrates overlapping goals, albeit with different principal stakeholders, and gives some regulatory context to this work:

> *'The OfS's primary objective is to ensure that English higher education is delivering positive outcomes for students.'* (OfS, 2020)
>
> *'[The GMC] help protect patients and improve UK medical education and practice by supporting students, doctors, educators and healthcare providers'* (GMC, 2020)

Alongside *Outcomes for graduates* (2018) and the establishment of the OfS (2017), a further key influence on undergraduate medical education is the GMC's proposed introduction of a national threshold examination: the Medical Licensing Assessment (MLA). This is due to come into practice in UK medical schools in 2024 and has been a controversial proposal which has prompted questions about the power of the medical regulator over higher education institutions (HEIs).

The proposal for the MLA has coincided with UCLMS' CM exercise. In anticipation of its introduction, UCLMS has harmonised terminology by adopting the GMC's language of ILOs (Intended Learning Outcomes), Core Conditions (CCS) and Core Presentations (CPs) (see Appendix 7, for CM glossary definitions). The introduction of the MLA will add to an already complex milieu of medical school assessments. There is currently significant variation between assessment schedules throughout the 41 UK medical schools.

2.4 Professional paradigm shifts impacting medical education

Since one of my research questions is concerned with the 'soft skills' including professionalism, here I outline some of the background shaping professionalism in medicine and medical education. Contemporary guidance is challenging the profession's framing of this. A recent Royal College of Physicians (RCP) report, '*Advancing Medical Professionalism'* (2018) describes 'doctor as learner and

teacher' as being one of seven core characteristics constituting medical professionalism:

> *'Doctors used to learn professionalism through apprenticeship, but now it is a specific part of education and training. There has been a focus on assessment when training in professionalism, but now there is more emphasis on developing a professional identity through mentoring and role modelling.'* (p.6)

This disrupts the view of medical education having lower status than either clinical practice or medical research, by situating education at the heart of professionalism. Sethi (2017) articulates this perpetuated myth:

> *'Medical education was regarded as having lower prestige…than other healthcare career tracks.'* (p.1)

This report (ibid) challenges the 'in service' teaching culture in medicine, that also pervades other educational sectors including further education (Illeris, 2011). This has resonance with the contentious 'semi-professional' status of teachers, discussed in the Foundations of Professionalism (FoP) EdD module. Some would, controversially, assert that education is a 'caring' and therefore stereotypically 'female' domain. The quotes below (from a female scholar) illustrate this point, but may be more reflective of the culture and times two decades ago when they were written; they have become less palatable and hopefully antiquated:

> *'Both "women" and "emotions" have historically been relegated to the private and domestic spheres of home, of caring for others.'* (Boler, 1999, p.6)

> *'…the social control of emotions is a central and unexplored aspect of education in relation to hegemony….the dominant culture's hierarchies and values…women are also assigned to teach the young because they are naturally caring and nurturing'* (Boler, 1999, p.xiv)

Scholarly activity in medical education is also under the spotlight. Many doctors increasingly believe that, as a specialty in its own right, medical education should be underpinned by an evidence-based approach, including towards the 'soft' skills. Historically, there has been a view that in order to compensate for increasingly busy professional lives, some medical educators have adopted a jobbing or 'treading water' approach to managing the competing demands of clinical service, academia and teaching. According to Cooke (2006):

> *'Thus, we arrive at our current predicament: medical students…are often taught clinical medicine…by teachers who have little familiarity with modern biomedical science (and who see few, if any, academic rewards in leaving their busy practices to teach).'* (p.1340)

However, there is an emerging paradigm shift towards a more rigorous approach to medical education, with scholars including Mann (2010) noting that the science or meaning of teaching (pedagogy) which has historically been undervalued, is becoming increasingly important:

> *'…additional perspectives which recognise the complexity of education that effectively fosters the development of knowledge, skills and professional identity are needed.'* (Mann, 2010, p.60)

I feel a responsibility towards contributing to this scholarly momentum in medical educational research and to the UCLMS vision through my EdD:

> *'Increasing our research excellence in outputs, impact and research funding to becoming a beacon of excellence in medical education research nationally and internationally'* (UCLMS website)

My view (reinforced by the rigorous approach to educational practice that I encounter in the EdD) is that the era of 'jobbing', well-intentioned generalist

clinicians curating complex medical curricula, is outdated. I have provocatively questioned at academic meetings that, whilst I (rightly) would not be expected to run a scientific laboratory without dedicated training, is it acceptable for a clinician with no formal educational background to oversee a complex curriculum? Sethi (2017) echoes these sentiments when he says:

> *'Medical education is a vast speciality, making it difficult as a generalist to keep up-to-date in all its areas.'* (p.1)

In fact, the stakes are as high as in clinical practice when we consider that we are preparing future doctors for the professional responsibilities of clinical care:

> *'We must also use evidence-based approaches whenever possible and rigorously evaluate our innovations…In our daily lives as clinicians, we aim to create a culture of continuous quality improvement. We should strive to create the same culture in our educational lives.' (*Schwartzstein, 2017, p.607*)*

2.5 Disrupted power hierarchies and the student voice

I alluded earlier to student voice and agency being key perspectives in my work, with medical students framed as stakeholders and co-architects of the CM. This speaks to the concept of '*powerful knowledge'* (Harland & Wald, 2018):

> '*power realised in what is done with that knowledge, that its purpose is social since it allows the holder to make a better contribution to society.... there is the possibility of powerful action after graduation'* (p.1)

This inclusion of the student voice means that students become co-constructors of knowledge in this research. This approach draws on the work of Healey

(2016) which is embedded within UCL initiatives, including the UCL Connected Curriculum:

> *'…it is vital that students play an active part in taking forward new developments. Schemes that enable them to take leadership roles and work in partnership with universities are proliferating.'*
> (Fung, 2017, p.153)

and providing:

> '*an institution-wide initiative to ensure that all UCL students are able to learn through participating in research at all levels of their programme of study'* (UCL Connected Curriculum, 2017)

This taps into the global phenomenon of #newpower (Timms & Heimans, 2018) which speaks to democratisation and inclusiveness, in the current era of what the authors call *'the age of mass participation'*. They describe 'new power' as a surge of bottom-up political will, driven by citizens. This contrasts with 'old power' held historically by elite groups (p.18). The authors describe traditional professionals including doctors, as *'keepers of knowledge'* (p.6) which they say helps to perpetuate their status and power. The authors discuss a recent thirst for collaboration, collegiality and sharing in *'this post-truth world'* and cite movements like #MeToo, which gave women an amplified voice in challenging sexual harassment and assault. Indeed, whilst I have been writing my thesis, the Black Lives Matter movement has been sweeping the globe. In harnessing the power of people, Timms & Heimans (2018) re-imagine shifts in power:

> '***Old power*** *works like a currency. Once gained it is zealously guarded… It is closed, inaccessible and leader-driven.*
> ***New power*** *operates like a current. It is made by many. It is open, participatory and peer-driven… It's most forceful when it surges.'*
> (Timms & Heimans, 2018, p.2)

However, they acknowledge the place of old power, for example in the expertise of doctors and other highly trained professionals. In practice, we see this expertise challenged by new technologies including the use of the internet and access to unfiltered information, often termed 'Dr Google'. Timms and Heimans (ibid) posit the merits of blending old and new power in managing change, and this is the approach I have drawn on in my thesis: in introducing a new tool to improve institutional metrics (old power) and the student experience (new power) and analysing it from the perspectives of students and myself (blended power). Synergistically, in this research I adopt a blended approach to the methodology and methods (see Chapters 4 & 5).

Prior to the term 'new power' being coined, an IoE academic, Michael Fielding (2010) wrote on the collaborative notion of *'Students as Co-Researchers'*:

> *'the growing prominence, both amongst teachers and academics, of an active partnership between young people and adults that goes beyond consultation to embrace a participatory mode in which young people's voices are part of a more dialogic, reciprocal way of working.'* (p.62)
>
> *'if we manage to create conditions of dialogue, then reciprocal engagement with those differences may, at least on some occasions, turn out to be mutually enlightening and productive.'* (p.63)

2.6 Generational influences in higher education

This ethos of collaboration discussed in the previous section, harnesses the benefits that inter-generational learning can bring. This has been exploited

through examples of ‘reverse mentoring’ (or ‘mentoring up’) used in higher education, business and industry (Chaudhuri & Ghosh, 2012):

> *‘reverse mentoring as a social exchange tool, which will leverage the expertise of both generations…by being perceptive of their different needs, value systems, and work demands.’* (p.55)

The authors describe this tool as uniting cross-generational ‘Boomers’ (born 1946-1964) and ‘Millennials’ (born 1997-1995), but it can equally be applied in higher education contexts to foster reciprocal dialogue between ‘Boomers’ or ‘Generation X’ (born 1965-1976) and ‘Generation Z’ (Gen-Zennials; born after 1996), constituting the majority of current medical students. Regehr (2020, p.10) suggests this *‘can lead to valuable learning for both the student and the preceptor’* (teacher or instructor).

Millennials and Gen-Zennials, who stereotypically embrace diversity, multiculturalism and global workplaces, can bring ‘fresh eyes’ and new perspectives to education. This is harnessed in HE initiatives such as UCL’s Connected Curriculum, discussed previously (p.40). Boomers and Generation X can exchange their expertise, for example in organisational memory and acquired wisdom, with Gen-Zennials’ knowledge of technology and popular culture. The Covid-19 pandemic is forcing much of our material online, even as I write, which serendipitously is likely to satisfy many of these calls. Whilst clinical placements and real-world interactions with patients can never be replaced by simulation and online learning, Gen-Zennial learners have called for inclusion of use of modern technology from platforms including YouTube. In my experience,

they have adapted remarkably well and quickly to the rapid Covid-19 induced online teaching delivery.

Fielding (2005) questions the motives and authenticity of incorporating the student voice:

> *'It is not clear whether a more sophisticated engagement with student voice is a seductive re-articulation of institutional insinuation or a genuinely different orientation to what we do and how we might do it.'* (p.65)

I am mindful of the unintended consequences of consulting with students on the CM, as they have differing agendas to faculty, myself and the regulator, as discussed in Chapter 2. I borrow a comparison from Elton (2018) from her book, *'Also Human'*, in which she uses the Rubik's Cube (below) to draw an analogy between actions and consequences in medical education; changes have the potential to disrupt the layers beneath them. As with a Rubik's Cube, certain actions may fix one element (of medical education) but will inevitably disturb others in the process.

Figure 2: The Rubik's Cube analogy of unintended consequences. Gishen, after Caroline Elton (2018).

Other generational changes are manifesting in professional shifts beyond medical schools, into clinical practice. Many doctors themselves are increasingly opting for blended 'portfolio careers' (Pathiraja & Wilson, 2011).

General practitioners (GPs) led the way in this regard, with hospital doctors beginning to follow. My colleague and former EdD student, Ann Griffin (2008) (a GP herself) writes on the portfolio career and the emergence of the super-specialised *'designer doctor'*, coined by Casey (1995):

> *'This represents, I will argue, re-professionalisation; it…causes re-negotiation of professional identity. This portfolio approach offers a greater possibility of benefits, compared to a singular professional role, to the doctor–educator and the communities that they now serve.*' (Griffin, 2008, p.355)

The literature on the development of professional identity as a doctor features a constant re-negotiation of identity:

> *'... learning to be a physician becomes a very important part of one's self concept and a bolster to one's self-esteem. Our society permits subordinating all other relevant roles to the professional identity. The higher the status of the profession, the more this process of subordinating all other relevant roles will be allowed*.' (Cohen, cited in Adams et al, 2006, p.56)

Griffin (2008) calls the portfolio career a '*calculated critical solution'* (p.358) in a modern changing world, but warns that it requires careful calculation and has significant ramifications for professionals:

> *'However, this re-ordering of identity is not without conflict; 'loosening' the coherent, arduously acquired and dominant identity of physician into a more peripheral, disrupted identity is problematic, requiring personal reflection and realignment.'* (p.357)

Shifting professional discourses and emerging hybrid identities give rise to 'new professionalisms', as discussed in Foundations of Professionalism (FoP, EdD). Personal and professional identities appear to sit on a spectrum, with Stone et al (2002) researching the 'doctor–teacher' identity in medical educators:

> *'Most [participants] linked doctoring and teaching, but there was variety in the hierarchy of prominence, with some seeing themselves as primarily doctors, some occupying a middle ground and some identifying themselves as teachers.'* (p.184)

I have contributed to the literature in the field by proposing that combining complementary roles may offer *'professional nourishment'* (Gishen, 2019a):

> *'Viewing one's contribution to medical education through a different lens may be helpful; teaching medical students and junior doctors may be professionally nourishing and symbiotic, enhancing job satisfaction, clinician well-being and the morale of the workforce.'* (p.2)

2.7 Seeking personal utility through this research

Here I outline some of the personal influences shaping this research. The writing of this thesis has coincided with my participation on the UCL Leading Change in Education programme. This has been formative in sculpting my thinking around educational leadership. The joy of this course has been networking with other multidisciplinary education leaders (nationally and internationally) facing similar challenges, across a spectrum of faculties. I reference to several of the ideas and texts fundamental to this educational leadership course throughout my thesis. For example, I was struck by something a speaker on the course said:

> *'Metrics can be useful, even if you don't believe in them.'* (PC, 2020)

I also acknowledge the impact (professionally and personally) of writing my thesis during the Covid-19 pandemic. The pandemic has acted as a *'critical incident'*, which may be defined as:

> *' [An impactful event] out of the range of normal experience – one which is sudden and unexpected…and can include elements of physical and emotional loss.'*
> (Workpositive, 2020)

Drawing this analogy prompted me to revisit my reference to the importance of 'critical incidents' on practice, which I made at the start of the EdD in my first assignment (Gishen, 2017a, p.7). I revisit this concept in Chapter 5.

Whilst Covid-19 has dramatically impacted society globally, amongst the groups most profoundly affected are healthcare workers and healthcare students. I have found myself caught between two of the most distressed sectors of society: medicine and education. This has played havoc with my professional life and prompted some rapid and radical changes to aspects of my practice. The events of the past few months have highlighted that the cosmetic tinkering around the edges of medical education, tolerated previously in a climate of relative inertia, is no longer acceptable. Impacted communities, particularly the generation of university learners who are colloquially being labelled as 'the Covid Generation', will likely feel the legacy of this pandemic for many years. Never more so has Harden's (2018) vision for the 'future medical school' felt so prophetic and relevant:

> *'Significant developments in medical education are necessary if medical schools are to respond to the pressures from advances in medicine,*

> *changes in healthcare delivery, and patient and public expectations.'* (Harden, 2018, p.1010)

I had already gathered my data prior to the onset of the coronavirus, but I make reference to the influence of the pandemic on my analysis, thinking and potential applications in my work. I discuss some of the early impacts of the pandemic and the paradoxical opportunities generated in higher education. One such opportunity is the catapulting to prominence of the MBBS CM.

Mindful that the EdD is a professional doctorate, I consider the utility of my research. On the topic of professionalism, the Institute of Education EdD regulations say:

> *'…demonstrate the candidate's understanding of professionalism and his/her own professional role and the contribution of the thesis to his/her professional development'* (IoE EdD handbook, p.31)

This ethos is reflected by scholars including Boyer (1996) who discusses *'the scholarship of engagement*', as well as writers in the 'grey literature', including in this online newspaper article:

> *'Too much research is aimed at insular academic circles rather than the real world.'* (Kirchherr, 2018)

Kirchherr (ibid) suggests that much of social science research is disconnected from real-world practice in the current *'self-referential culture'*:

> *'It can often feel like contemporary academia is about chasing citations rather than changing the world'* (opt.cit)

and Kirchherr (2018) further implies that the academic community, should radically disrupt the current systems and culture:

> *'…reimagine a PhD that is designed not to win kudos within the academic community, but rather aimed at discovering something new that will be useful for practitioners and have real social impact.'* (opt.cit)

I therefore seek personal utility and development of my own practice through this academic endeavour, as well as shared knowledge for my wider community of practice, defined as '*groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly'* (Sterz et al, 2018). Through incorporation of my personal narrative documented throughout the active mapping phase of the process and beyond, I interweave my authorial voice and values into this work, using a self-study methodological approach. I ask whether the map has contributed to my own self-development as a professional practitioner. Since one of the outcomes of both an EdD and the methodology of self-study is intended to be self-improvement, I seek this through applying the lens of *'reflexive project of the self'* (Giddens, 1991, p.9). This approach allows reflection and reflexion on my own experiences, with a view to influencing my practice and enabling me to become a more insightful and improved educator and doctor.

2.8 A skeleton history of medical education

Here, I offer a brief history for the benefit of experts and non-experts alike. Medical education has not always been organised within formal curricula. Historically doctors learned through traditional apprenticeships; systems of training practitioners using on-the-job experience with some accompanying

study, such as observing anatomical dissection. The professional aspects of practice were learnt by a process of shadowing practitioners in practice and through observing role models (both good and bad). The medical folklore phrase, *'see one, do one, teach one'*, reflected this model of learning. According to Sullivan (2005):

> *'The crucial aspect of apprenticeship—initiation into the wisdom of practice—remains on the margin of academic training'* (p.79)

Abraham Flexner (1910) is widely considered as the father of modern medical education, having devised the earliest, embryonic 'curriculum map' by subdividing learning into preclinical (scientific method) and clinical (practice-based) domains. For his 1910 critical report on medical education, he visited all 155 medical schools operating at the time in North America. Central to Flexner's framework was the idea that formal analytic reasoning should take centre stage in the intellectual training of physicians. This represented a revolutionary new concept, and while many medical schools have subsequently moved towards more integrated approaches, such as Problem Based Learning (PBL), his pedagogical footprint remains influential.

Jerome Bruner's contribution to education in a broader context (1960) influenced the shape of medical education through pioneering the concept of the 'spiral curriculum', whereby increasingly complex learning is achieved through layering complexity by iteratively revisiting topics (see Figure 3). This framework is evident throughout the UCL MBBS curriculum.

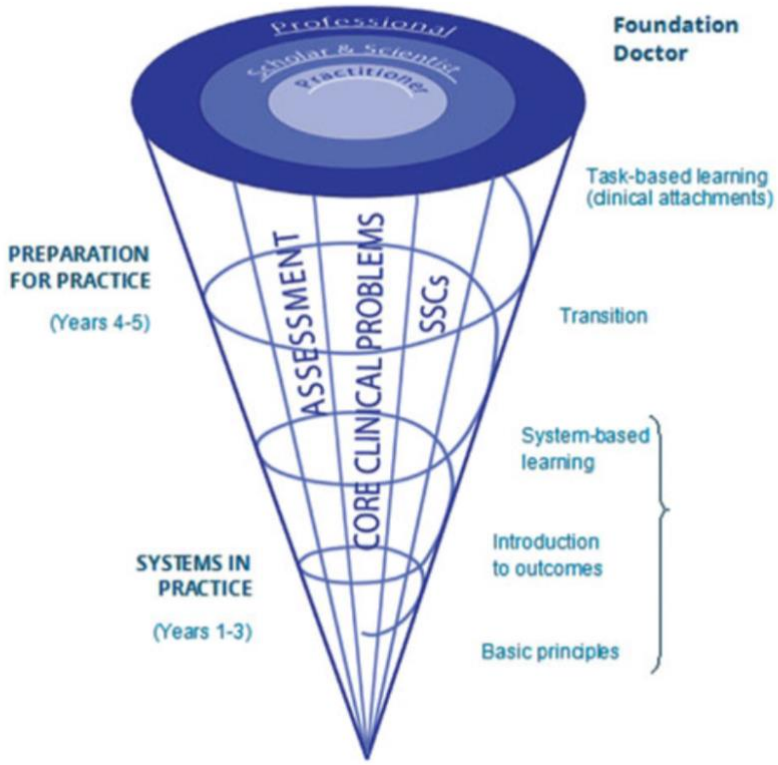

Figure 3: The spiral curriculum (Dundee School of Medicine Course Information Booklet, 2012). Cited in Linklater et al, 2014, p.442.

Friedson (1973) further advanced the medical curriculum by adding the concept of value judgements as an adjunct to scientific method. He was instrumental in evolving educational paradigms, including the concept of 'vertical' curricula which in this context are used as a device to weave professional components ('soft skills') of medical practice into 'horizontal' learning (see Figure 4, below). Starr (1982) further influenced the 'map' of medical learning by incorporating societal and economic agendas, thus contextualising real world challenges.

Interestingly, one of the emerging legacies of the Covid-19 pandemic, is a shift away from medical students learning through frequently rotating clinical placements, as this theoretically introduces added risk of them acting as viral vectors. Instead, they are generally learning in more stable environments within

‘social bubbles’ (interacting with small groups of students and clinicians). This has resulted in them remaining within stable ‘firms’ where they learn in a more traditional way, with a return to the apprentice-style learning of old; by role modelling and shadowing professional ‘masters’.

2.9 The programme structure at UCLMS and beyond into practice

There are approximately 2000 students on the six-year UCL MBBS programme, depicted in Figure 4.

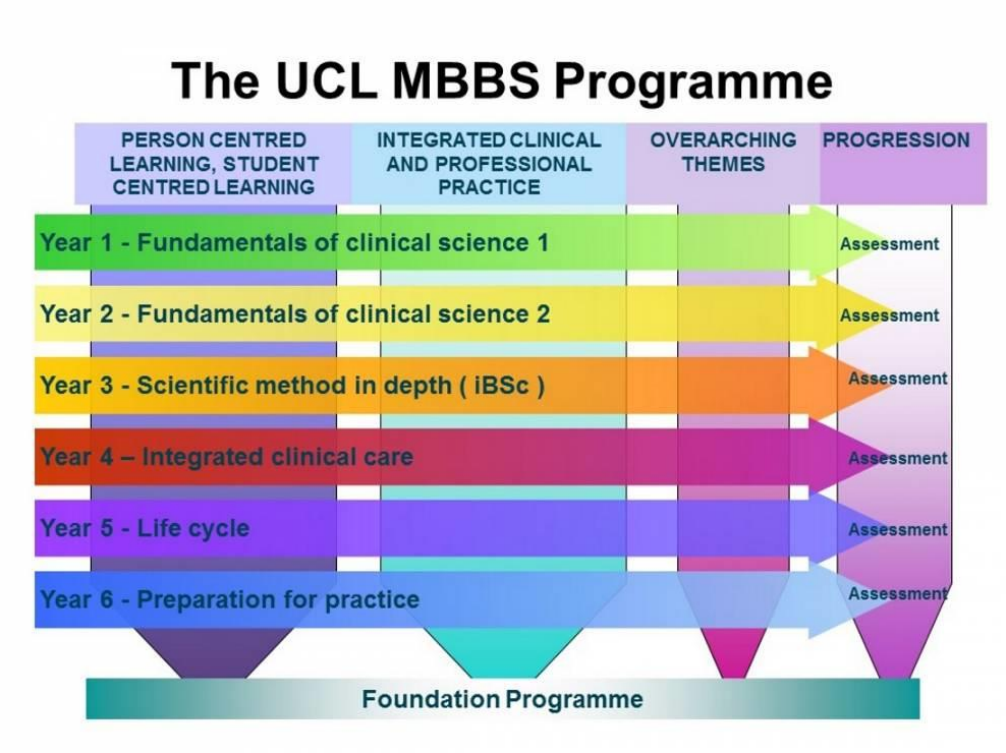

Figure 4: The UCL MBBS Programme showing integrated horizontal and vertical modules (the latter known as ‘Clinical and Professional Practice’)

The initial two years draw on the foundations of clinical science, with predominantly lecture and laboratory-based practicals and tutorials. There is

limited patient contact, which is almost exclusively gained during this time through the ‘vertical modules’ (collectively called ‘Clinical and Professional Practice’) which comprise the ‘soft’ non-technical skills. The third year is an integrated Bachelor of Science (iBSc) degree. The fourth, fifth and sixth years happen in clinical placements, with students either in hospitals or general practices, depicted below in Figure 5. Each year of the programme concludes with summative assessments comprising both a knowledge based written examination and a clinical and practical examination.

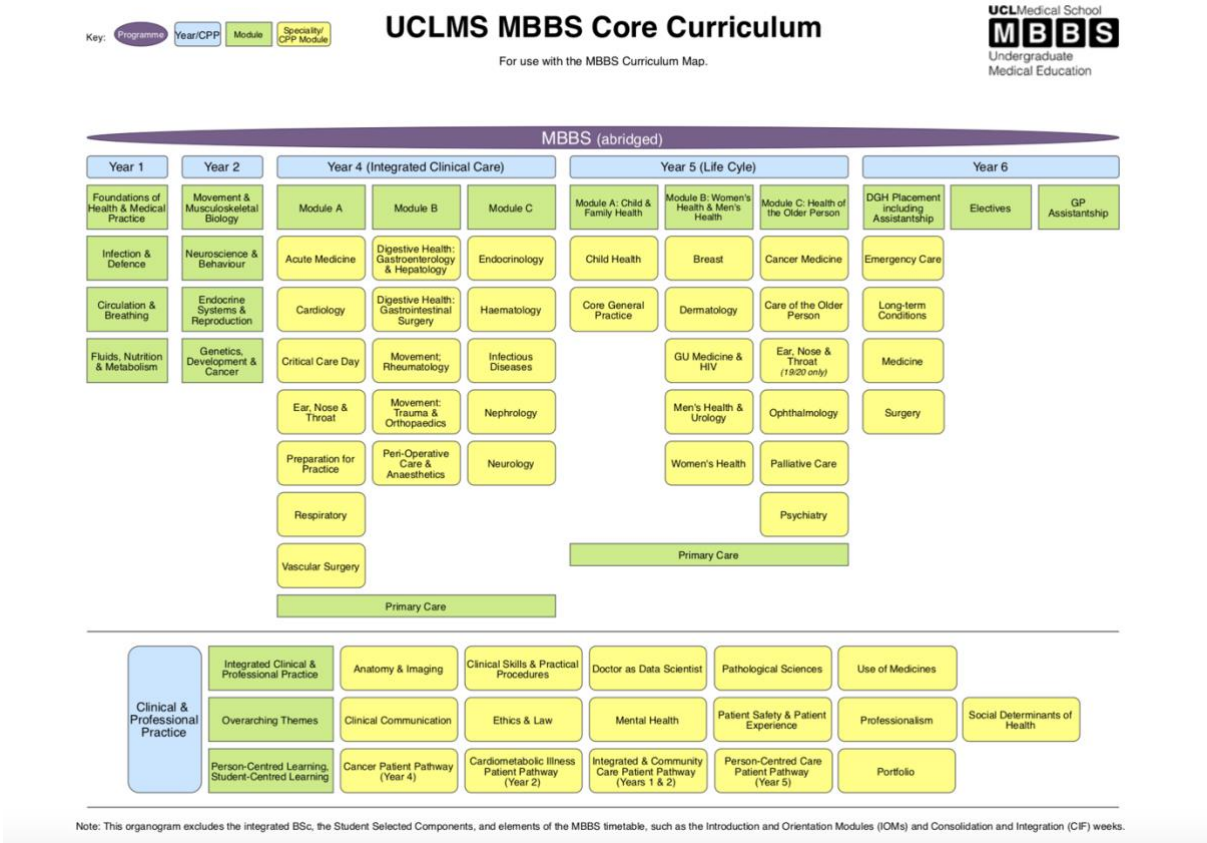

Figure 5: The UCL MBBS Core Programme, produced by the CM team (2019)

On successfully completion of their final year, medical students are conferred the MBBS (Bachelor of Medicine, Bachelor of Surgery) degree and, providing

there are no outstanding fitness to practise (FtP) issues, they graduate from the University and apply for provisional registration with the GMC to become Foundation Year 1 (FY1) doctors. After completing this first year of clinical practice, assuming no outstanding FtP issues, full registration is granted and a doctor normally progresses to Foundation Year 2 (FY2). Following this, doctors usually embark on further postgraduate training to become either a hospital specialist (usually a consultant) or community doctor (usually a general practitioner). Medical career paths are becoming increasingly non-linear as the workforce becomes more diverse and creative, as evidenced in the GMC's (2019) report '*The state of medical education and practice in the UK'*.

2.10 'Soft skills' in undergraduate medical education

As a seasoned practitioner and Professionalism lead, I considered it important to address whether professionalism and the 'soft skills' have been adequately reflected in the UCLMS CM. I define them here as '*the professional, non-technical skills including communication, leadership and teamwork'.* As a medical student, I was inculcated with a general bias towards 'hard' science over the 'soft' skills. Beliefs in some quarters about medicine requiring a 'macho' approach are likely to be encountered and perpetuated during medical school, partly through 'bad' role models (Cook, 2018) and the 'hidden curriculum' (Lempp, 2004).

In approaching my research question about 'soft skills' in the CM (p.24), further explanation is given here to provide more context. All UK medical curricula contain elements of these skills, with clinical communication, medical ethics and leadership considered as 'core' learning (common to all medical curricula), as outlined in the national blueprint *OfG* (2018). Some scholars in the field go further in calling for the profile of these non-technical, professional skills to be raised further. Bleakley's (2011) argument for expanding the soft skills is compelling. He posits that the medical humanities have been relegated to being the *'handmaidens of medicine'* (Bleakley, 2015, p.960). A central tenet of his work is that medical students need to act as responsible citizens and role model professional behaviours, and that they require a holistic and robust medical humanities education in order to achieve this. Indeed, he argues that they need this to equip them for modern society. In his forthcoming publication, Bleakley (2021) regards this contribution to preparedness for practice as being a responsibility of medical schools. He argues persuasively that teaching on global and political issues should be incorporated into a rounded undergraduate medical education. This builds on previous work in which he discusses:

> *'the reintroduction of elements of a liberal education into the medicine undergraduate curriculum'* (Bleakley, 2015, p.959)

as a counter to the reductive ''*cold' science dominated'* (p.959) curriculum, which he considers as contributing to dehumanising patients. Bleakley (ibid) adds 'new' and relevant issues to this proposed medical humanities menu, including sustainability, climate change and LGBT+ rights (ibid), which in his opinion, further aid in democratising medical education. He also highlights that the Covid-19 pandemic has provided opportunities for reconceptualising

pedagogies, and that the spirit of collaboration and reduced competition should be viewed as a gain. I too have experienced this spirit over the past few months, with the pooling and sharing of resources nationally through the Medical Schools Council. I also agree that the need to modernise undergraduate medical education is being accelerated by the current *force majeure*.

Unlike scholars, including Bandaranayake (2000), who posit that medical curricula are already overcrowded and that scrutiny should be applied to what constitutes 'core' and 'essential' for learning, Bleakley (2021) argues for inclusion of traditionally regarded 'non-core' materials, which he considers to be 'essential' to produce 'fit for the real-world' doctors. He challenges the historical bias towards learning in hospital placements in medical school:

> *'The chronic aspect of primary care may hold less appeal, as it is steady rather than energetic. As far as community care is concerned…medical education has failed to link productively with community services, for example to introduce medical students to the important role of home-based carers as well as those in voluntary services. Students' interest in community mental health services is usually low.'* (p.9)

Hospital placements have featured heavily in medical education, in Bleakley's (ibid) opinion, at the expense of vital community services, which he views as having been underrepresented despite forming the backbone of medicine (and therefore, medical education). Bleakley (ibid) uses the term *'hospitalism'* to describe this phenomenon, maintaining that immersion in predominantly hospital-based placements gives an unrepresentatively fast-paced and 'sexed up' (my term) experience to the learner. Such dominance has been in evidence during the Covid-19 crisis where initial failures to build links between community

care and hospitals has been highlighted in both the grey literature (Briggs, 2020) and the medical literature (McGee, Gill & Wollaston, 2020) and resulted in poorer outcomes for patients. Using Bleakley's (ibid) argument, the roots of this current real-world problem can, at least in part, be traced to systemic failures in authenticity within undergraduate medical education. He argues for the need to look beyond science, and learn lessons from the arts and social sciences, with incorporation of art, poetry and film into medical learning.

I agree that there needs to be an increased emphasis in medical education on 'medicine as an art' as opposed to simply a 'hard science', with an enhanced platform given to elements such as reflection and empathy, which help to humanise patient care. In my experience, these elements along with the social science components, are underplayed in favour of traditional science. However, I have become acutely aware, through the CM project, that a balance needs to be struck. In order to incorporate new content in an already crowded curriculum, existing content needs to be sequentially reviewed, with outdated content removed in order to accommodate new content.

2.11 Outlining the Curriculum Mapping project

Here, I outline the curriculum mapping project itself, giving the post-mapping analysis clear context. Prior to the project, curricular information was available on the Virtual Learning Environment (VLE; 'Moodle') as well as in UCLMS paper and electronic study guides. However, a unifying and holistic curricular resource was not available. Below is a depiction of where my research (in red) fits into

the overall mapping exercise, with reflective loops showing feedback opportunities for iterative change:

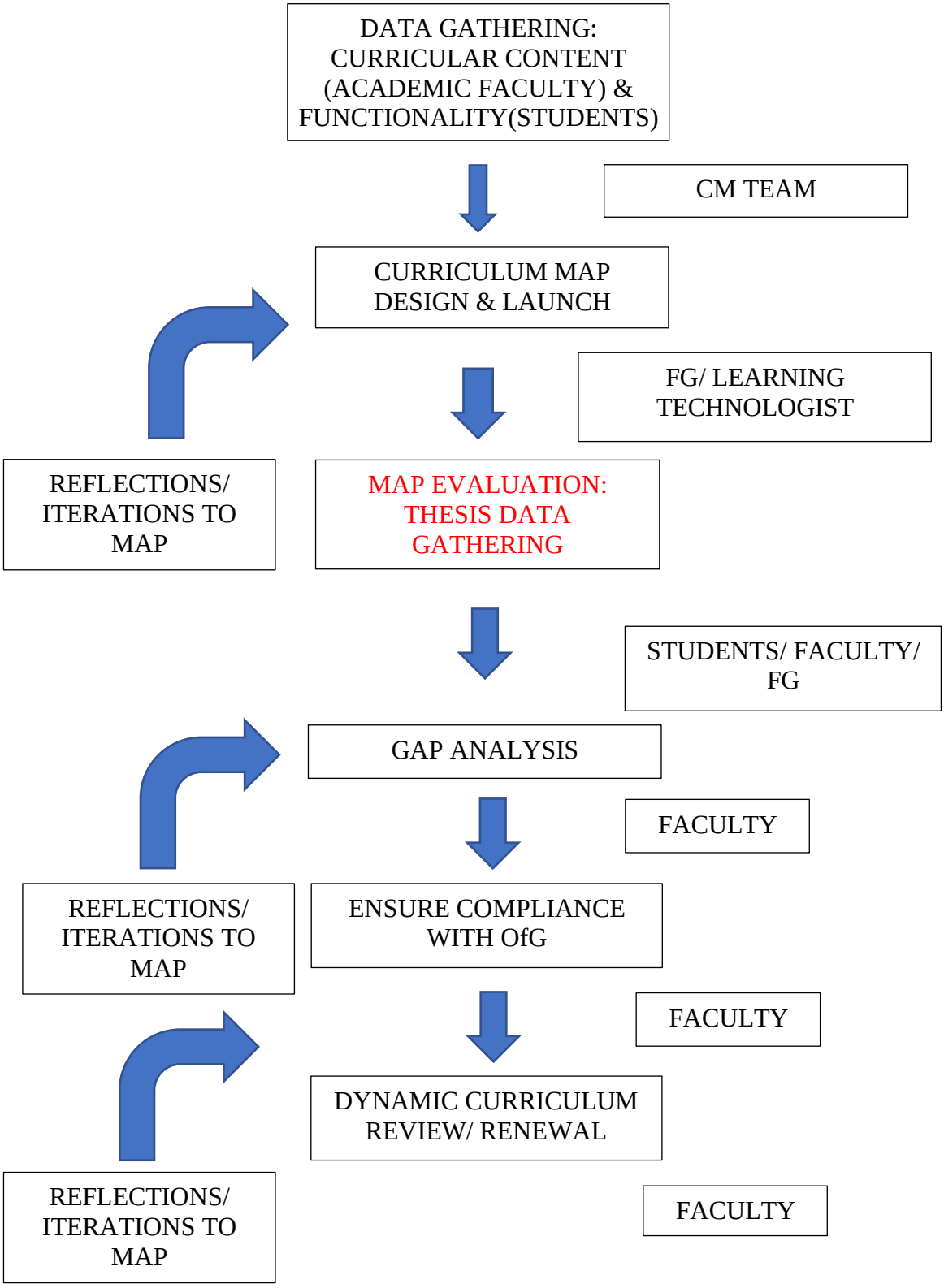

Figure 6: Flow chart showing stages and reflective loops of the CM project.

Academic curricular content for the map was gathered from academic faculty members and clinical teachers who were requested to provide certain core data: module synopses, Intended Learning Outcomes, Core Conditions, Core Presentations for their specialist module. Vertical ('soft skills') modules (see Figures 4 & 5) were mapped and integrated with horizontal content where possible to link elements of the curriculum. Students were not involved in informing content of the CM but were key in informing desired functionality of the CM; they were invited to contribute their views through a pre-design survey (Likert scales, free text comments) and focus groups.

Figure 7: Brain-shaped 'word cloud' of words that were important to students when imagining the CM (derived from free text comments, n=105, gathered in pre-mapping pan-UCLMS survey). Size of words correlates with frequency of use.

The CM is an organic ‘document’ that can be accessed at https://uclms-asr.app using a login. It is housed within the UCLMS Academic Student Record (ASR) alongside personal tutoring and academic results. It can be accessed by students and faculty. UCLMS decided to allow non-UCL staff to be able to use it, principally National Health Service (NHS) clinical teachers, to help to guide their teaching. We took advice from the UCL Legal department regarding the intellectual property around the tool. We also took legal advice about Terms and Conditions (T&Cs) for users, to protect and potentially defend the Medical School, from the CM not being an exhaustive ‘textbook of medicine’ but rather a framework for learning. Below is the caveat that accompanies the CM and is seen by users when they login for the first time and sign the T&Cs:

> *‘The MBBS Curriculum Map is a guide to underpin your learning and help prepare for assessments. It should be supplemented with teaching, personal study and clinical experience. Medicine is vast and complex; no map can be exhaustive. Learning will be built upon as you go through the MBBS course so you will draw upon material covered in previous years. There will be dynamic improvements to keep the map updated. UCLMS has taken all reasonable care to ensure that the content is up to date.’*
> (UCL, 2019)

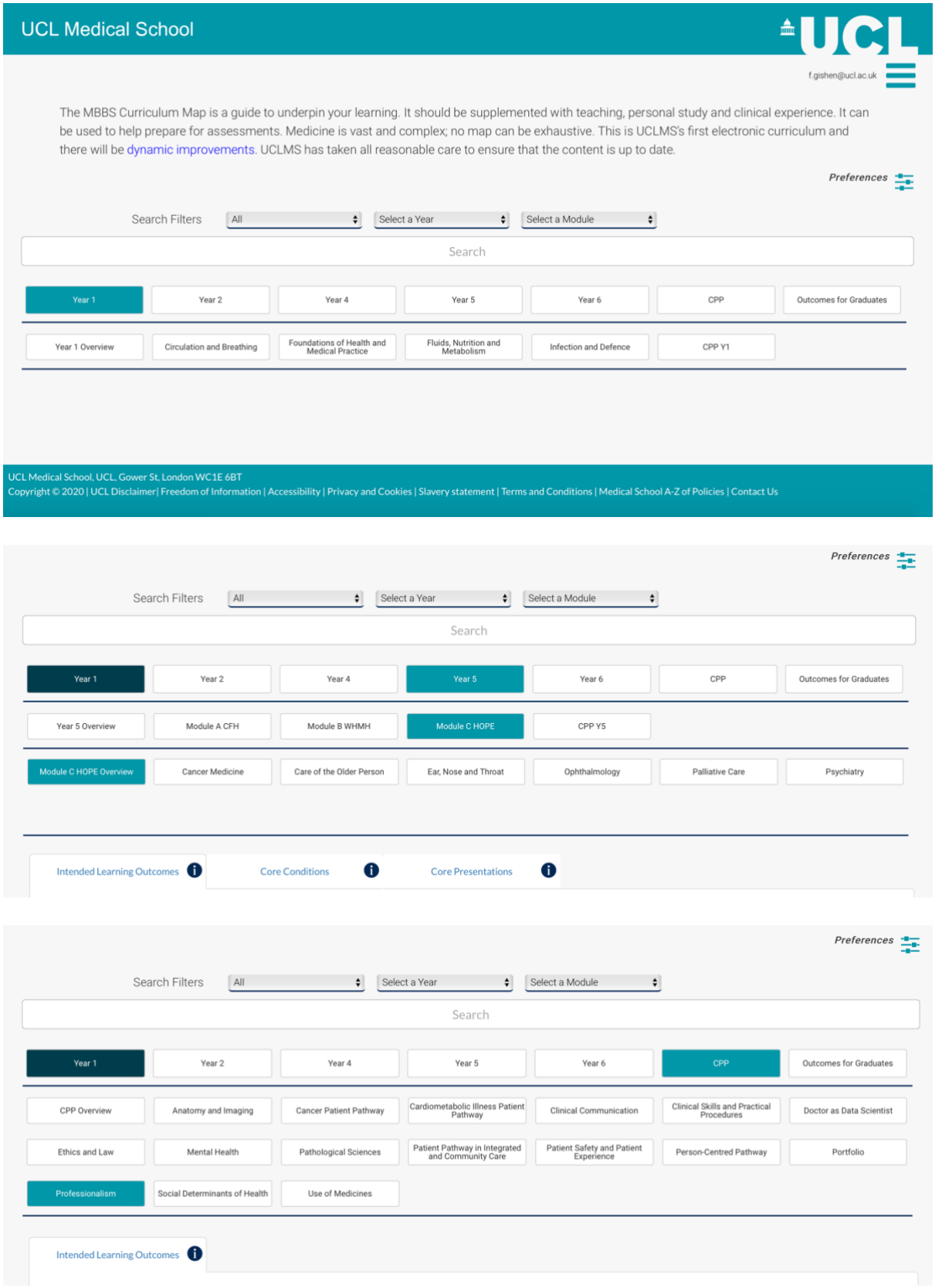

Figure 8: Screenshots of the MBBS CM showing horizontal and vertical modules

2.12 Summary

I initially introduced the reader to my professional practice problem and presented my research questions. Some of the background necessary to understand and contextualise this research has been presented in this chapter. I have laid the groundwork for the arguments around why curriculum mapping raises political, pedagogical and theoretical issues, and these are explored further in the following chapters. I have introduced the reader to the different stakeholders in the exercise and post-mapping critical analysis: myself, students, patients, the institution, and the regulator. In the following chapter, I go on to situate my research around key literature in the field. I draw on scholars whose work has resonated with me and helped me to theorise my approaches to my professional practice problem.

Chapter 3: Literature Review and Theoretical Perspectives

> *'The idea of 'curriculum' is intrinsic to what we understand by an institution having an 'educational' purpose'* (Young, 2019, p.14)

3.1 Introduction

I frame this literature review around my research questions and the personal, professional and national policy lenses introduced in earlier chapters. My intention is that this chapter demonstrates my synoptic understanding of the field of study and systematically signposts the reader to the research contexts. Central to this literature review is an exploration of how the literature defines *'curriculum'*. The interplay between the formal, informal and hidden elements of curriculum is considered. I draw on the literature to ponder the junction where *'curriculum'* meets *'syllabus'* and relate this to my work. The literature on 'soft skills' including professionalism, is visited. I outline the history and literature around curriculum development and curriculum maps in medical education (with broader reference to education more generally) and introduce some of the terminology and methodology that is used in the field. Additionally, I use the writing of key scholars that has informed and influenced my work to underpin my theoretical stance, which informs the blended methodological position that I lay out in Chapter 4.

The literature suggests that radical changes to education, specifically to curriculum development, are common but rarely well-planned or resourced.

Such changes may be pushed from ‘on high’, sometimes with a historical and or political agenda, and if inadequately planned, resourced and thought through may have detrimental effects on the quality of learning.

3.2 Defining curriculum

> *‘A curriculum is always about knowledge; it is also always about power.’* (Young, 2019, p.14)

Fundamental to both the curriculum mapping project and this post-mapping critical analysis is the concept of *curriculum*. The problems of conceptualising, theorising and defining curriculum are complex. The theoretical notion of curriculum is not new, but the way scholars and users understand it has altered over time, and there remains considerable dispute as to its meaning. ‘*Curriculum*’ has its origins in the chariot tracks of Ancient Greece, when it was literally, ‘a course’. In Latin, *curriculum* was a racing chariot; *currere* being to run. According to Young (2019) the modern definition of curriculum arose in Europe in the early-to-mid 19th century following recognition of a teaching and learning gap:

> *‘…it was acknowledged that [there was] important knowledge that all citizens needed access to but could not acquire solely from their experience of growing up, which had sufficed for most people in previous generations.’* (Young, 2019, p.14)

Young (ibid) maintains that a curriculum is about knowledge, but also about power (namely the power of knowledge, as well as the power to choose and

determine what constitutes the knowledge in that curriculum). Power is a thread that I return to throughout this thesis.

A renowned scholar in the field, John Kerr (1968) defines curriculum as:

> *'all the learning which is planned and guided…whether it is carried on in groups or individually, inside or outside the school'*
> (cited in Kelly, 1983, p.10)

This inclusive definition was further developed by another key contributor to the field, A Vic Kelly. His classic text, '*The Curriculum'* (1995) focuses on the philosophical and political dimensions of curriculum, with a view to creating educational and democratic curricula for schools. Kelly (2009) uses the term *'total curriculum'* to describe curricular content beyond simply the body of knowledge that educators wish to transmit. There are multiple facets constituting a *'total curriculum'*. For example, the *'formal curriculum'* (timetabled) and *'informal curriculum'* (non-core, voluntary or extra-curricular activities) contribute to this holistic definition. In addition, scholars including Lempp (2004) highlight the *'hidden curriculum'*: matter learned as a consequence of institutional, social, political and cultural messages. This hidden and largely unwritten content is particularly challenging to define and depict in curriculum maps.

In the spirit of Kerr and Kelly's (ibid) broad and inclusive theorising of curricula, within medical education, Morrison (2002) acknowledges the contribution of informal and hidden curricula:

> '*A medical school as a whole, and the expression of its curriculum through the interactions, exchanges and learning that take place within and outside of the school, is a complex system.'* (p.28)

He contextualises medical education as operating on the fringes of another complex system: healthcare. This in turn operates within a yet broader complex system: society.

Other scholars, including English (1978; 1984) and Harden (1997, 2001) whose work has been influential on my own theorising on curriculum, subscribe to a narrower definition, framing curriculum as ***syllabus*** i.e. curriculum as material content:

> *'A syllabus or specification is a document that communicates information about a specific course and defines expectations and responsibilities.'* (Wikipedia, 2020a)

Interestingly, this resonates with students' framing of curriculum too; when asked in the pre-mapping primary survey what was important to them in producing a CM, the word 'syllabus' was used by many (Figure 7). In my thesis I adopt this syllabus-centred definition of curriculum, whilst acknowledging the debate and the limitations inherent in adopting this relatively reductionist definition. It has felt important to approach both the CM project and this post-project analysis by tightly framing my theoretical position on 'curriculum' in order for my research be focused, pragmatic and to have professional utility, which I return to throughout, particularly in the latter chapters. I appreciate that some within my field may disagree with this relatively narrow stance, and I return to this in my discussion. To summarise, in the context of this research, a 'curriculum map' is an electronic syllabus.

Bleakley (2011), who was key in establishing an innovative and progressive UK medical school (Peninsula, University of Plymouth), frames the purpose of curriculum as a dynamic sum of structured learning with a deemed body of knowledge:

> *'The curriculum, which is constantly being enhanced, explicitly sets out to produce 'tomorrow's doctors', fit for practice in the 21st century.'* (p.459)

This approach of 'curriculum for preparation' was posited in an early school of thought within education, as proposed by Bobbitt (1918; 1928). Here, education is viewed as a technical exercise and curriculum as a 'product'. Objectives are set, a plan drawn up and applied, and the outcomes (or products) measured. In '*The Curriculum*' (1918), Bobbitt writes:

> *'The central theory [of curriculum] is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse…they can be discovered.'* (p.42)

He goes on to rationalise this theory into a product-driven curriculum framework:

> *'These [activities] will show the abilities, attitudes, habits, appreciations and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite and particularized. The curriculum will then be that series of experiences which [students] must have by way of obtaining those objectives.'* (p.42)

Although this concept of a product-orientated curriculum originated in the United States, it has grown in influence in the United Kingdom since the late 1970s following the concern with competencies and metrics, especially around the

National Curriculum. Tyler (1949) shared Bobbitt's emphasis on rationality and relative simplicity, suggesting that curriculum consisted of four components; *objectives, content, methods and evaluation*. Tyler (1949) says:

> *'Since the real purpose of education is not to have the instructor perform certain activities but to bring about significant changes in the students' pattern of behaviour, it becomes important to recognize that any statements of objectives…should be a statement of changes to take place in the students.'* (p.44)

At UCLMS, adherence to the standards set by the regulator (GMC) and the need to evidence meeting these through an inspection and compliance framework, mean that 'objectives' become a key feature of the MBBS CM. This risks the CM becoming a formulaic and 'tick-box' product and perpetuates the notion of didactic 'instruction' as opposed to situating the medical student as an independent, enterprising learner. A further consequence of the focus on pre-specified goals may lead both educators and learners to overlook learning that is occurring as a result of their interactions, but which is not listed as an objective. I was cognisant of these risks and was keen to understand and explore them through this post-mapping critical analysis.

Therefore, my theorised and adopted stance situates curricular 'content' (as per Tyler, 1949) as being central to this work. Some could argue that a consequence of this approach means that according to Tyler's classification, 'method' simply becomes a matter of effectiveness of delivery, and 'evaluation' a tool for measuring politically driven metrics for attainment. I have already introduced some discussion about the politics of measurement in Chapter 2 and will continue to refer back to this throughout my research, alongside an

acknowledgement that positivist tools (including curriculum maps) can enable agendas that may seek to reduce education down to controllable, and some would say de-professionalised, reductionist markers.

My pragmatic content-driven approach to curriculum focuses on Intended Learning Outcomes (ILOs), which are driven partly by the regulator (GMC) and the institution (UCL). This approach is somewhat counter-cultural to traditional medical learning, in which the organisation of curricula into learning outcomes (and indeed, curriculum maps) has historically been missing. Learners (and to an extent medical educators) have largely focused on content as it relates to assessment, within what has been described as a competitive assessment-driven environment (Sutton-Klein, 2015; Stephenson, 2001). Assessment has been acknowledged as a key driver to learning and professional accreditation, in both the undergraduate and postgraduate medical sectors (Buss et al, 2012; Newble & Jaeger, 1983, Newble, 2016). With the understanding that 'assessment drives learning', the medical education community has looked to integrate the 'soft skills' more actively into assessment to raise the profile and perceived importance of the professional skills. This approach has been particularly championed by the UK Council for Teachers of Medical Professionalism that I sit on, and captured in the quote below:

> *'Medical schools are expected to promote compassionate care among learners. Assessment is a key way to communicate values to learners but can create a hidden curriculum. Assessing compassionate care is challenging; however, not assessing it can communicate to students that such care is not valued.'* (Wright et al, 2019, p.1164)

3.3. Defining professionalism and the 'soft skills'

In order to contextualise one of my research questions (p.24), I consider professionalism further. As outlined in Chapter 1, professionalism forms a strong thread throughout both the EdD (a professional doctorate) and my thesis. My third research question asks whether in the key stakeholders' view, the MBBS CM has adequately reflected the professional skills that feature strongly in the GMC's medical education undergraduate blueprint, *Outcomes for graduates* (2018). This links to the other research questions which are concerned with examining the drivers for curriculum mapping, metrics in medical education and the notion of the *'whole'* curriculum.

Seasoned practitioners understand through real-world interactions with patients, that describing these skills as 'soft' is something of a misnomer:

> *'As practitioners, we recognise that in reality these 'soft' skills are vital and are paradoxically the 'hard' skills.'* (Gishen, 2020, p.2)

Referring back to Foundations of Professionalism (the first EdD taught module), as doctoral students we argued, pondered and soul-searched the meaning of what it is be a 'professional'. I have found the working definition from Cruess and Cruess (2004) from their review of the professionalism literature within medical education, to succinctly capture what I also understand to define a profession:

> *'**Profession**: An occupation whose core element is work based upon the mastery of a complex body of knowledge and skills. Its members are*

> *governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good…These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation. Professions and their members are accountable to those served and to society*.' (p.74)

This *'monopoly over the use of its power base'* speaks to Timms and Heimans' (2018) 'old power' dynamics, and I wonder whether, if Cruess and Cruess (2004) were defining professionalism today, they might now consider a more collaborative definition. My UCLMS colleague, Ann Griffin (2008) discussed this contemporary interplay in a paper derived from her own EdD FoP assignment:

> *'Traditional professionalisms and identities are decaying caused by societal change and the interrogation of old values.'* (p.357)

Cruess and Cruess (ibid) undertook this review as they felt that a real-world definition of professionalism was needed:

> *'a knowledge of the meaning of the word is important as it serves as the basis of the contract between medicine and society, and hence, of the obligations required of medicine to sustain the contract*.' (p.74).

Building on Cruess and Cruess' definition (2004), Cooke et al (2006) added their interpretation of professionalism within education:

> *'All forms of professional education share the goal of readying students for accomplished and responsible practice in service to others'* (p.1341)

Sullivan (2005) situates the aims of medical education specifically, within the context of *'professions in the new economy'* as:

> *'…using as a framework the key goals of professional education: to transmit knowledge, to impart skills, and to inculcate the values of the profession.'* (p.8)

As I re-read my reflective statement (Gishen, 2017d) from year 2 of the EdD, I notice that I was initially surprised (perhaps even mildly perplexed) to be asked whether I considered myself to be a professional. I come from one of the oldest and most established professions; surely this was sufficient pedigree? The question itself challenges the nature of what it means to be a doctor and 'troubles' (Kuby et al, 2016) some of its entrenched cultures, beliefs and power hierarchies. Karnieli-Miller et al (2013) explore some of these, specifically through examining medical inculcation rituals, such as 'White Coat Ceremonies' (WCCs) popular in the United States and elsewhere (but not in the UK). They use discourse analysis of multiple ceremonies to analyse the messages given. Before conducting their research, the authors assumed that WCCs perpetrated narratives of professional power:

> *'The white coat itself has been central to critiques of WCCs because of its potential connection to elitism, power and guild status.'* (p.98)

However, the authors (ibid) could not substantiate this assumption through their analysis; rather they found that WCCs were used to highlight professional responsibilities and humanistic elements of the profession:

> *'…identifying the white coat as a reminder to its wearer to provide humanistic professional care for patients, and by asserting that it is the person wearing the coat and not the symbol that matters.'* (p.106)

This is an interesting study which resonates with the methodology of self-study, which has an underpinning pillar of challenging assumptions. My own critical

reflexivity on what professionalism entails has highlighted the broad applications and interpretations of the word ‘professional’; as a noun, as an adjective, as a compliment, even perhaps as a pseudo-insult (for example in a neoliberal or popularist context). This is a concept I will return to in my discussion and conclusion.

3.4 Theoretical perspectives on curriculum mapping

Stenhouse (1975) conducted early research into links between curricula and teacher practice, arguing that the process of enquiry is fundamental to education and that classrooms should be collaborative and dynamic spaces to question and evolve curricula. However, Dann and Hanley (2019) argue that this creative and democratic philosophy has been stifled following the introduction of educational measurement and metrics:

> ‘*after much activity and productivity in the 1970s and 1980s [curriculum research and scholarship] became negatively influenced by the introduction of the national curriculum, becoming geared primarily towards questions of fidelity of implementation’* (p.30)

Dann and Hanley (ibid) describe official curricular policies as ‘*tools of regulation and control’* (p.30). This links with my research aims to critically analyse the application of metrics in medical education. Dann (2019) discusses that the curriculum is ‘*narrowed to what is tested…teaching to the tests’* (p.12), and that curriculum design (and mapping) ‘*cannot be easily disengaged from assessment’* (p.12). She suggests that curriculum, assessment and pedagogy

are intrinsically interlinked. Dann (ibid) also notes that summative testing has '*given the message that…practical subjects and skills…are less valued'* (p.12). However, she acknowledges that there has been a recent move towards a 're-conceptualisation' of curriculum studies.

Some scholars (Biggs, 1989; Collis & Biggs, 1993; Biggs & Collis, 2014) take a student-centred perspective on curriculum design. Rooted in cognitive psychology and ways in which learners learn, Biggs (1989) argues for the importance of considering motivational approaches to learning (surface, deep and achieving) when designing and mapping curricula. The 'surface' approach can be linked with an 'achieving' motivation, rewarded by high grades and decile rankings (the latter are promoted by many UK medical schools), fuelling the competitive environment (Sutton-Klein, 2015; Stephenson, 2001). However, in the real world of clinical complexity, a 'deep' motivation for learning is desirable for training future doctors as it is likelier to engender a more holistic approach to patient care, encompassing not only scientific background but also societal and social perspectives. This perspective would favour a CM which included and integrated the 'soft skills', such as professionalism and communication.

Whilst acknowledging the frameworks above, with their theoretical stance on 'curriculum', I am also influenced strongly by the systems-driven theoretical perspective on curriculum design advocated by English (1978) and Harden (1997, 2001). English (ibid) devised the concept of mapping in order to improve transparency and efficiency. This resonates with the commissioning of the

UCLMS CM (see Chapter 2), following students criticism of the programme for lacking clarity and transparency in the NSS (Appendix 1) and other metrics:

> *'Curriculum mapping provides curriculum developers, teachers, students and managers with a handle on the curriculum… It is a powerful tool for managing the curriculum.'* (English, 1978, p.50)

In a similar vein, the celebrated medical educator Harden (1997), likens a curriculum map to a geographical road map, and suggests that it can offer a multi-dimensional overview, providing clarity and linking curricular elements including ILOs, learning opportunities and assessment:

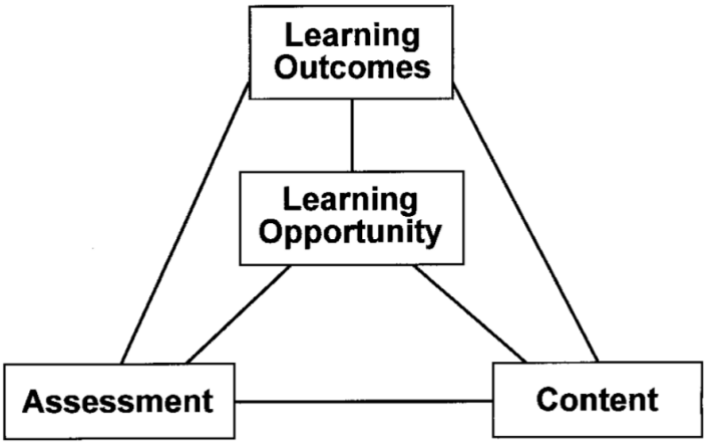

Figure 9: Harden (2001) links four key domains within curriculum review

He describes the interlinkage of these domains:

> *'Curriculum mapping is about representing spatially the different components of the curriculum so that the whole picture and the relationships and connections between the parts of the map are easily seen.'* (p.123)

Harden (2001) also regards curriculum maps as tools for highlighting and reducing '*unwitting duplication'* and unifying multiple curricular elements,

describing them as '*the glue that holds the curriculum together'* (p.123). Adopting a framework based on the theoretical perspectives of English and Harden (ibid) seemed pragmatic when working on the construction phase of the MBBS CM, given the rationalised metrics-driven climate and constrained project envelope (Table 1). Harden (2001) further describes how curriculum maps can link theory with experiential learning to incorporate the 'soft' professional aspects:

> *'The curriculum map encourages a holistic approach to medical care…The map also encourages the application of theory to practice by relating an understanding of basic medical sciences to the mastery of clinical skills, thus emphasizing the relationship between 'knowing' and 'doing'.*' (p.125)

This framework appeals to me as it ignites the possibility of looking forwards to a whole curriculum review arising as a legacy project, with the CM providing a baseline or 'skeleton' for future impactful work. Beyond the UK, Cottrell (2016) describes mapping as a '*curriculum oversight process'*, comparing different models used by North American medical schools for benchmarking and accreditation. This is also unashamedly part of its function here (as discussed in Chapter 1), in satisfying the regulator.

As discussed in section 3.2, undergraduate medical curricula could be considered as complex 'academic jigsaws' consisting of:

- *Formal curriculum*
- *Informal curriculum*
- *Hidden curriculum*

Mapping of traditions, attitudes and organisational messages (the hidden curriculum) is challenging, making it theoretically unlikely that a CM could accurately depict the *whole* curriculum. To add to this theoretical complexity, much of the learning at medical school is placement-based, with an almost infinite variety of possible clinical opportunities, making this additionally challenging to accurately capture. Harden (2001) describes such complexities:

> *'[Exchange of information] has become more difficult with the increasing complexity of curricula. [Contributing factors include] increased vertical and horizontal integration, and the provision of a wide range of learning opportunities in different sites and settings including the hospital, the community, and other settings'* (p.135)

3.5 Curriculum maps in undergraduate medical education

When considering the role and purpose of curriculum maps in undergraduate medicine, one could go back to the basic principles of what medical education is for, and with this in mind, what the goal of a map should be. I agree with Cooke (2006) when she posits:

> *'The purpose of medical education is to transmit the knowledge, impart the skills, and inculcate the values of the profession in an appropriately balanced and integrated manner'* (p.1341)

The UCL Vice-Provost for Education, Anthony Smith, echoed this when he said at a recent meeting that *'research is the vehicle for producing knowledge, and education is the vehicle for disseminating it'* (UCL Leading Change in Education

Programme, UCL Arena, 2019-20). I would add the goals from our UCLMS 'mission statement' about the 'UCL Doctor' to complement this:

> *'…a highly competent and scientifically literate clinician, equipped to practise person-centred medicine in a constantly changing modern world…'*
> (UCL, 2020c)

Acknowledgement of *'the constantly changing modern world'* makes regular curriculum review and refreshment imperative as medical educators move within the paradigms of evolving pedagogies and expectations of learners. The CM could therefore as be regarded a tool to highlight both gaps in the modern medical curriculum and areas in need of updating. As discussed in Chapter 1, the Covid-19 pandemic is accelerating and forcing pedagogical changes throughout the educational world, as our usual systems and methods are disrupted by factors beyond our control. This may precipitate more rapid evolution of the CM than would normally be expected.

As alluded to in Chapter 1, there are few published examples of curriculum maps in undergraduate medical curricula, possibly as this can be philosophically challenging work, and perhaps reflecting that the reasons behind mapping may not always be clearly defined. Indeed, the UCLMS CM may have been commissioned as a 'knee-jerk' response to national guidance, without detailed consideration of its sequelae and unintended consequences. In addition, the traditional lack of rigour in evaluating medical educational practice discussed previously, may have contributed to a paucity of research around curriculum mapping. However, a small allied literature on building and curating medical curricula from scratch exists, usually for new medical schools (Al-Eyd,

2018). In addition, a significant body of literature exists on faculty development of piecemeal elements of medical curricula.

Joseph Schwab (1973), a pioneer in curriculum development, introduced a framework for curriculum development and review, arguing that in his view, several cardinal pillars were required for effective outcomes:

> *'for balanced curriculum development to occur, deliberation must take place with the four commonplaces (teachers, learners, subject matter and milieu).'* (cited in North, 2018, p.212)

He defined these 'commonplaces' as being based on the acceptance that education always involves someone (a teacher), teaching someone (a learner), something (the subject), somewhere (social and cultural contexts, or 'milieu') (Schwab, 1969, 1973). Reid (2010) interprets Schwabian principles by saying of them:

> *'curriculum deliberation, the method of the practical, as a process that could connect theory and practice…[he] emphasized that the problems and issues in curriculum resided in real world contexts'* (p.54)

Craig (2008) argues for an extension in what could constitute *'milieu*' to include local and national policies. This is relevant in my work, with key policy influences (including OfG and MLA, see Chapter 2). *'Deliberation'* in this context is different to debate or argument, because here the participants are attempting to find answers collaboratively (this is also a key feature of self-study, see Chapter 4). Schwab (1973) argues that multiple perspectives are required when improving and developing curricula in order to lend a variety of perspectives,

and I have harnessed this approach in constructing both the CM, and in this post-mapping critical analysis by gathering data from multiple stakeholders:

> *'Deliberation with the commonplaces is crucial to gathering the important and diverse perspectives necessary to inform curriculum development.*' (cited in North et al, 2018, p.215)

Building on Schwabian theory, Reid (2010) posits that impact is likelier when a holistic approach and broad cohort of constituents are consulted in curricular matters:

> *'The commonplaces offer a construct that can be used to analyse curriculum decision-making processes. Curriculum deliberations that have all of the commonplaces represented might result in decisions to act, or, more specifically, decisions on instructional content and strategies, that are well balanced.'* (p.54)

However, Reid (2010) highlights biases towards certain 'commonplaces' that became evident in his educational research, using Schwab's deliberations:

> *'the commonplaces framework helped identify the dominance of subject matter in deliberations'* (p.61)

He illustrates this in his thematic analysis of teacher conversations around curriculum development, which focused heavily on subject matter.

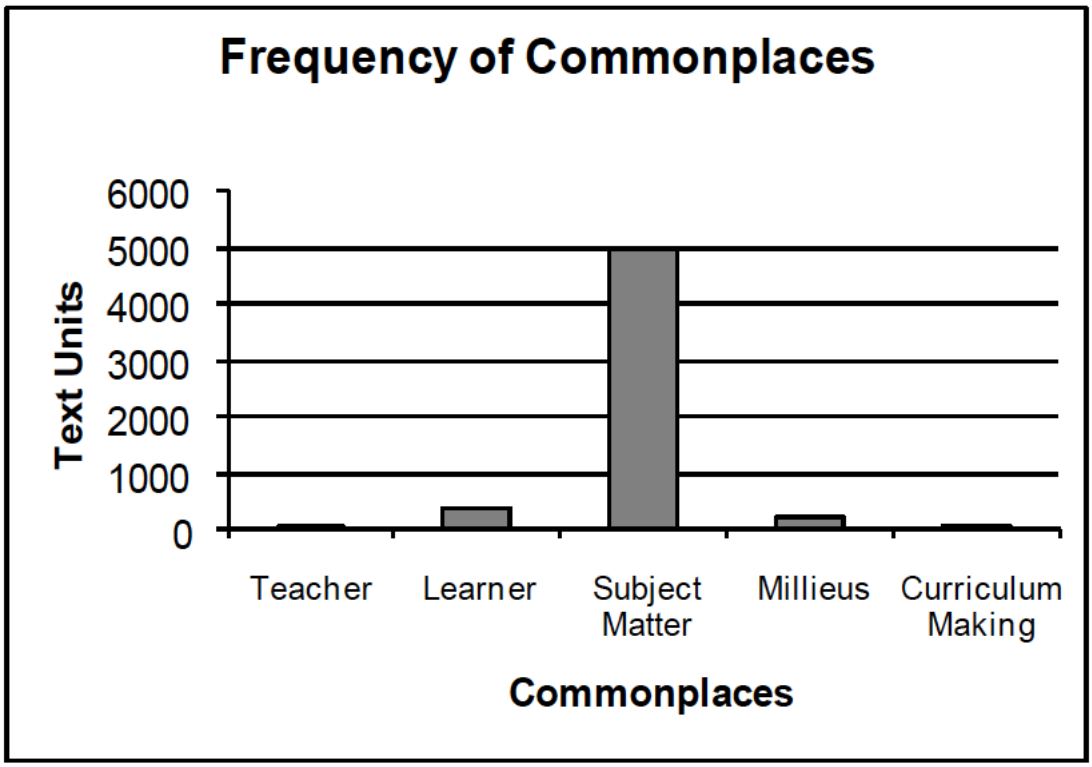

Figure 10: Reid's findings showing preponderance of Subject Matter Commonplace in discussions around curriculum development (Reid, 2010, p.61)

I am aware that the potential dominance of subject matter in my work around curriculum mapping needs to be mindfully managed. In medicine, scientific subject matter traditionally dominates curricula, with 'soft' components being relatively sidelined. North et al (2018) discuss their application of a curriculum development schema deriving from Schwab's 'deliberation' guidance, when undertaking and describing the phases of an extensive curriculum development project. The authors describe five stages centred on collaboration which they say builds trust and respect or 'buy-in' from the community (again, an underlying tenet of self-study):

(1) creating the necessary conditions
(2) the problem emerges
(3) the solution emerges
(4) evaluation
(5) beyond deliberation

(North, 2018, p.214)

I have undertaken similar stages (1-4) during the initial curriculum mapping phase and in this thesis, I am in a *'beyond deliberation'* (stage 5) phase of post-project critical review, which iteratively requires a revisiting of stages 1-4.

Reid (1992), highlights the commonplace of *'teacher'* in curriculum deliberations:

> *'The teacher, as the best source of experience on how theoretic knowledge can serve practical interests in the world of the classroom, should here be the principle ally of curriculum making in the process of uncovering the knowledge that is needed in order to realize educational benefits through use of scholarly materials.'* (p.99)

In the UCLMS mapping project, teachers were consulted when compiling the academic content of the CM.

3.6 Summary

In setting out this literature review and outlining my theoretical frameworks, I showcase to the reader how particular scholars' work has influenced and illuminated my thesis. Whilst being cognisant of the importance of reading widely, I have tried not to be seduced by the 'big names' in the field and have instead stayed with select scholars whose perspectives I believe speak to this research and underpin its theoretical frameworks and methodological choices (Chapter 4). In framing my stance around key scholars' perspectives, I hope to

build on existing evidence to *'stand on the shoulders of giants'*. I have begun to highlight some areas of concord and discord in the literature in the field. I anticipate that by using the literature to craft a bespoke methodology around my research questions, I give this work originality and its best chance of leaving a legacy and having some utility for my community of practice. In the following chapter, I connect the personal and professional contexts explored within the first two chapters and the key areas outlined in my literature review, with the methodological frameworks I use to address the research questions.

Chapter 4: Methodological Frameworks

> *'…most good scholarship has an autobiographical component'*
> (Cassuto, 2013, p.1)

4.1 Introduction

In this chapter I outline my blended methodological framework and situate it around my theoretical perspectives, drawing on the personal, professional and policy lenses laid out previously. In this way, this chapter acts as a bridge between the earlier chapters and the subsequent chapters concerned with data collection, findings, and subsequent applications of this research. Methodology is the study of the range of methods and a description of how the study was carried out: the *research strategy*. It outlines how the methods connect to each other in an informed and purposeful way. The methodology can provide an opportunity to consider some of the relative strengths and weaknesses of the chosen methods and to explain why particular methods were selected over others.

4.2 Adopting a 'bricolage' methodological framework

Undertaking the EdD has stimulated change in my own approach to teaching and learning. I am mindful of my cultural tendencies to approaching research in

a ‘scientific’ and metrics-driven, data-heavy way. Therefore, in my thesis, I search for a middle ground between adopting the approach of ‘scientist’ with that of ‘artist’, acknowledging the versatility and creativity of this pedagogical opportunity. With this ‘artistic’ approach in mind, I apply a creative and entrepreneurial methodology to addressing my research questions (p.24). I use a collaborative process reminiscent of Schwab’s (1973) ‘*deliberation of the commonplaces’* (p.78), to critically analyse the UCL MBBS curriculum mapping project. I harness the power and prominence of the student voice, as well as my own as a *‘reflective practitioner’* (Schön, 1983) and key architect of the MBBS CM.

This focus on reflection and reflexion builds on my previous EdD work which researched reflective practice within undergraduate medicine (Gishen, 2018a). I also consider the implications of undertaking *‘insider research’* (Robson, 2002) and trouble whether I have brought my own biases to the curriculum mapping project, whilst endeavouring to adopt what Heifetz and Linsky (2002) describe as the objective *‘balcony view’* (or what my supervisor, dRS, calls the ‘helicopter view’).

This research is underpinned by an interpretivist epistemological approach, using a blend of hermeneutic phenomenology and self-study methodological frameworks. Having lived through the CM exercise and recorded this through keeping autoethnographic or ‘*hyper-reflexive*’ (Campbell, 2016) field notes and chronicling my personal narrative throughout, this dataset underpins one of the methodologies used: self-study. By adopting this ‘bricolage’ of methodologies

(Struthers, 2011; Denzin and Lincoln, 2000), I mirror the complex area that I am researching. I capture what Reid (2010) calls the *'myriad needs of the stakeholders'* (p.54) with myself as *'bricoleur'* (Kincheloe, 2001). I adopt a patchwork of methods to answer my research questions and address my problem of practice. This thesis seeks to illuminate the deliberative process itself in the formation of '*practice architectures'* (Kemmis & Mutton, 2012):

> *''Practice architectures'…identify pre-existing cultural-discursive…and arrangements that enable and constrain practice…changing practices requires not only changing the awareness, understanding, concerns and skills of individual participants in the practices, but also changing the practice architectures that hold existing practices in place.'* (p.188)

I demonstrate that by endeavouring to underpin my work with transparency and rigour, I give it its best chance of withstanding and defending critical analysis, thereby enabling trustworthiness and endurance, as outlined by LaBoskey as a cornerstone of self-study (outlined on p.94).

The Tate Gallery defines bricolage in the context of art as:

> *'a French wording meaning roughly 'do-it-yourself', and it is applied in an art context to artists who use a diverse range of non-traditional art materials'*
> (Tate, 2020)

Within the art sphere, bricolage can conjure political connotations. This angle is applicable here too as my work considers aspects of social justice and power. According to the social anthropologist Lévi-Strauss (1962), a bricoleur (*'the savage mind'*) seeks meaning amongst detritus, contrasting this with the work of a person who solves technical or mechanical problems using orthodox scientific methods (*'the engineer').* Traditional medical research, which is

normally quantitative, fits with the ‘engineer’ approach. Qualitative enquiry, such as mine, lends itself to interpretivist approaches. Lévi-Strauss (ibid) posits that a bricoleur does not care so much for the purity of the method used, but more about its flexibility and the meaning that arises from it, which is echoed in LaBoskey’s (2004) self-study principles, that will shortly be outlined.

A bricolage methodological framework is less constrained and more eclectic than traditional methodological frameworks and can therefore be useful in sparking originality. Kincheloe (2001) and Steinberg (2012) have used the term ‘bricolage’ in the context of educational research to denote the use of multi-perspective research methodologies. In Kincheloe's (2001) conception, diverse theoretical traditions are used in a critical context to allow the emergence of transformative modes of multi-methodological inquiry. In using these frameworks and methodologies, researchers are empowered to apply different lenses and perspectives to their work and thereby augment the trustworthiness of their data. A bricolage methodology theoretically enables researchers to gain broader and more diverse insights into socio-political and educational phenomena, and this underpins my choice here.

Kincheloe (2001) theorises a multi-epistemological and critical ontology to ground the research bricolage. In this way, the research bricolage reflects and acknowledges the complexity of knowledge production and the interrelated complexity of researcher positionality. This rationale is inherent in both hermeneutic phenomenological and self-study perspectives as single

methodological frameworks, and in my view, heightened when the two are combined effectively. Bricolage scholars including Kincheloe & Berry (2004), Steinberg (2012) and Struthers (2011) argue that such complexity demands a complex mode of research enquiry that allows sufficient sophistication to manage the complications of socio-educational experience. They theorise that a bricolage methodological approach avoids the reductionism of some mono-logical research approaches. Like a magpie collecting and weaving together different materials to construct a bespoke nest, bricolage methodologies can allow researchers to find commonalities and synthesise these as coherent threads, with more freedom and in imaginative ways. Sfard (1998) likens this approach to drawing on *'a patchwork of metaphors.'* (p.12).

This approach fits with earlier EdD work I undertook in examining reflective practice in the undergraduate curriculum, which could be viewed as a pilot study for this larger thesis. In my Institution Focused Study (IFS), I used the concept of different participant lenses or 'gazes' to allow different perspectives on the research question. This draws on Bassot's (2016) use of the analogy of various mirrors to illustrate that reflection can appear different to different people, depending on which 'mirror' is used (see Appendix 3). Bassot (2013, 2016) suggests that different views on reflection may stimulate creativity, critical thinking and self-awareness, thereby keeping practice fresh and challenging. In a similar vein, I wish to critically analyse the curriculum mapping project by applying multiple stakeholder perspectives to enrich and triangulate the findings, and ultimately to use these findings to understand and maximise the CM's impact.

4.3 Phenomenology and hermeneutic phenomenology

Phenomenology is the study of the structures of experience. It addresses judgements, perceptions and emotions in the analysis of human and societal behaviours. It considers an individual's lived experiences and lends itself to researching subjective experiences. Phenomenology is influenced by empathy and inter-subjectivity, so mirrors the empathy which should underpin clinical care. Its founder Husserl (referenced in Bell, 1990) emphasised background and 'situatedness' in influencing human encounters. In contrast to positivist epistemologies, phenomenology allows:

> '*exploration of methodologies that emphasized discovery, description and meaning rather than prediction, control and measurement'* (Laverty, 2003, p.21)

Linking back to what I wrote about the importance to me of practising medicine as an art as well as science, I include a quote here that resonates with this ethos:

> *'…phenomenology also pursues the intertwining of science with art, the imparting of a poetic sensibility to the scientific enterprise'.*
> (Finlay, 2011, p.109)

The specific epistemological framework that underpins my thesis co-methodology is hermeneutic phenomenology (HP), which studies the interpretive structures of an experience, using lived experience to interpret its meaning. HP is widely considered as being more 'artistic' than phenomenology, with a lens beyond science and into the humanities. It also has the central tenet of embracing the reflexivity of the researcher, inviting consideration of hidden

meanings, which speaks to this analysis exercise with its repeated references to medical education's 'hidden curriculum'.

Like self-study (see following section), HP allows for the acknowledgement of researchers' own values, biases and beliefs. HP also allows for interpretation within a particular cultural and historical paradigm; which feels important in this study, given the current unique climate induced by a combination of Covid-19, Brexit and surges in societal movements including Black Lives Matter. This research demands an acknowledgement of changing times; of altered student expectations and needs of a new generation of learners, in order for it to be contextualised. The medical school of today, or indeed the future, does not fully mirror my experience at medical school many years ago, and this needs to be understood and respected in interpretation of my findings.

Owing to significant ideological objections to the politics of one of the key philosophers in this field, I will not be directly citing his work. I had not considered that omitting his work could be an option until I attended a thesis workshop (Cunningham, IoE, 2019) where this precise issue was raised by a recent EdD graduate (E O'B). She discussed the conflict she had experienced working within Holocaust Education and simultaneously within the scholarly area of a Nazi philosopher (it was as if through articulating her academic dilemma, she was speaking directly to me!). My decision to exclude his work has sparked my further reflections on whether researchers should carry out due diligence on the scholars that influence their work and whether my personal values should be allowed to influence which scholars I choose to engage with.

Embarking on the EdD has empowered me to determine my own boundaries of 'academic integrity'. Having found my boundaries within clinical practice, it has been illuminating to begin to apply similar principles to my fledgling academic practice too.

Hermeneutic phenomenology disturbs Husserl's notion of *'bracketing'* (being able to distinguish one's views from the interpretation of events), by arguing that they are indivisible. Whilst phenomenology uses a Cartesian duality, HP does not accept a mind/body split. In this way HP presents a methodological approach that considers relationships between participant, researcher and world. Biases or assumptions are therefore essential to the hermeneutic phenomenological process, with the researcher being integral to the research. This fits sympathetically with the co-methodology of self-study (see below) which involves self-criticality, normally with the intended outcome of improving one's practice. HP has no set method and can be used flexibly with a variety of analytical tools; here I couple it with thematic analysis (TA) (see Chapter 5). I pay attention in my analysis and findings to both language and nuance (van Manen, 1997):

> '*[HP] requires an ability to be reflective, insightful, sensitive to language, and constantly open to experience*.' (Preface, p.xi)

In considering my own biases and assumptions, I weave some of my former EdD work into my thesis by drawing on Foundations of Professionalism (FoP) (Gishen, 2017a) and Methods of Enquiry 1 (MoE1) (Gishen, 2017b), with previous assignments acting as 'stepping-stones' in building complexity and depth in my doctoral portfolio. This mirrors Bruner's (1960) theoretical concept

of the ‘spiral curriculum’ which builds and layers advancing educational complexity as studies progress, depicted in Figure 3.

4.4 Self-study

In this research HP is blended with self-study (S-S) using autoethnographic note-keeping as the method of capturing my self-study data. Self-study (S-S) is a relatively young methodology, also referred to in the literature as self-study of teacher education practice (S-STEP). Hamilton, Smith and Worthington (2008) define it as:

> *‘self-study (a look at self in action, usually within educational contexts)’* (Hamilton, 2008, p.17)

They suggest that S-S and ‘insider research’ (see below) may be considered by some as being closely related on the methodological continuum. The authors (ibid) posit that although distinct, the methodologies of autoethnography, narrative and S-S can be ambiguous in their differences, with *‘blurred boundaries’* (p.18) and scholarly differences in precise definitions. Hamilton, Smith and Worthington (2008) posit that:

> *‘A self-study can employ narrative strategies yet not follow narrative methodology’ (p.18)*

The authors (ibid) depict this overlap of methodological boundaries in the diagram below:

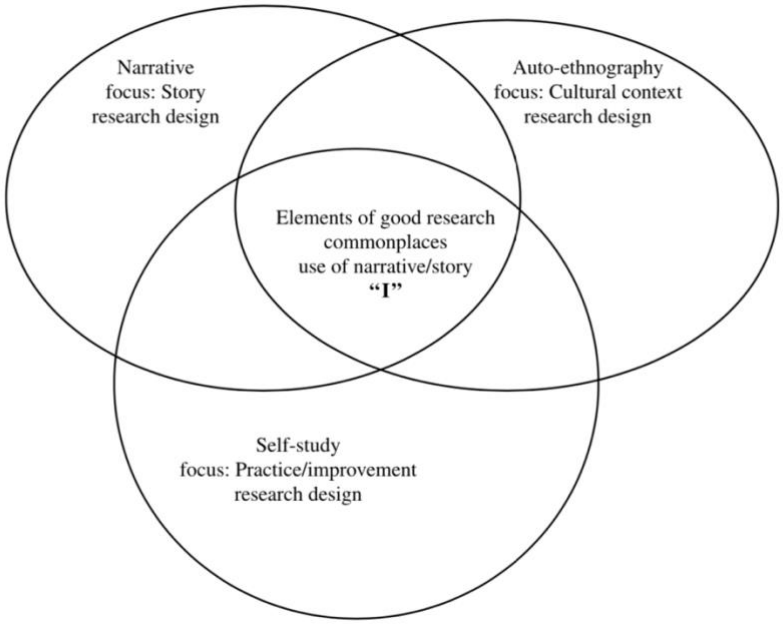

Figure 11: Venn diagram showing commonalities in research methodologies (From Hamilton, Smith and Worthington, 2008, p.24)

Hamilton and Pinnegar (1998) acknowledge the methodological spectrum, but endeavour to articulate the boundaries, specifying that S-S is:

> *'The study of one's self, one's actions, one's ideas, as well as the 'not self'. It is autobiographical, historical, cultural, and political . . . it draws on one's life, but it is more than that. Self-study also involves a thoughtful look at texts read, experiences had, people known and ideas considered.'* (Hamilton & Pinnegar, 1998, p. 236)

S-S is becoming an increasingly popular methodology for undertaking curricular reviews, when it may be called 'teacher research' or 'teacher inquiry'. It has not been widely used within medical education, and never to my knowledge for this type of critical analysis of an undergraduate medical curriculum mapping exercise. Generally, where the term 'self-study' is used in medical education within the literature, it is used in a different context, normally as a surrogate for 'self-directed learning' (Barbarosa, 2017; Grubnik, 2017). S-S utilises a dialogic

collaborative angle of social justice and consideration of power (Griffiths, 2002) to challenge one's perspectives. I maintain this 'thread' of social justice and power throughout this work. Self-study offers '*a methodology for studying professional practice setting'* (LaBoskey, 2004, p.817) and is '*focused on the nexus between public and private, theory and practice research and pedagogy, self and other'* (p.818):

> *'Grounded in social constructivist learning theory…learning is processed through previous experience so personal history and cultural context must be considered; and learning is enhanced by challenging previously held assumptions'* (LaBoskey, 2004, p.819)

Loughran et al (2004) suggest that S-S provides:

> *'a focal point for those pursuing a better knowledge of their particular practice setting'* (Loughran et al, 2004, p.9)

I could extrapolate this further by positing that S-S therefore represents a methodology that fits the ethos of a professional doctorate, such as the Doctor of Education (EdD).

S-S appeals to me as it allows me to sit with dual identifies of physician and educator, as outlined in Chapter 1. It permits me to wear the 'two hats' required for conducting insider research (Robson, 2012): practitioner and researcher. It speaks to Schön's '*swampy lowlands*' (1983) and allows for the incorporation of uncertainty and complexity and embraces the recognition of biases and subjectivity. This methodology therefore fits sympathetically with the intended purpose of my EdD; troubling and theorising about some of the difficult questions posed in this work; is the curriculum map fit for purpose and does it adequately depict the curriculum?

4.4.1 Self-study as a co-methodology

S-S pairs sympathetically with a hermeneutic phenomenological framework as both revolve around interpretation and meaning. The conceptual framework of S-S is underpinned by challenging assumptions (of self and others). Wittgenstein (1980) asserts that this underpins the fundamental debate around what knowledge is and should be. S-S is a collaborative process which checks data and interpretations with a scholarly community of 'critical friends' (e.g. supervisors, mentors) and theory.

LaBoskey (2004) outlines five key criteria for S-S:

- self-initiated and focused
- improvement-aimed
- interactive
- includes multiple (mainly qualitative) methods
- defines validity as a validation process based in trustworthiness (p.859-860)

As in LaBoskey's (2004) determination of S-S through acquiring the reader's trustworthiness, Ritter (2017) reinforces this dialogue around reader as judge and validator by saying:

> *'…relative success in this endeavour is ultimately left to the reader to decide'* (p.23)
>
> *'I author this work but simultaneously invite alternative interpretations of my investigation'* (p.24)

Lincoln and Guba (1985) focus further on the concept of trustworthiness by introducing the criteria of:

- credibility
- transferability
- dependability
- confirmability

Ritter (ibid) discusses the application of self-study to educational research. As a methodology that arose in teacher education, it offers synergy with my work as a medical educator, also supporting other (apprentice) professional practitioners. He describes the '*messiness*' of self-study (p.29), which again resonates with Schön's '*swampy lowlands*' (p.90). He frames S-S as '*a dynamic process that strives for new insights holistically*' (p.21) and describes it as being:

> '*deeply personal, demanding vulnerability not typically invoked in professional settings, while at the same time interactive and collaborative, necessitating transparency and honest communication which can cause discomfort*' (p.21)

I recognise parallels here with clinical practice too, especially in a discipline like palliative care, which often demands reflection, reflexion and admission of vulnerability in facing of one's own mortality. Ritter (2017) discusses two ways that a practitioner can learn self-study: undertaking faculty courses and taking part in a S-S group. I would suggest a third exists: 'learning on the job'. I have acquired my S-S skills through role modelling from my supervisor (dRS), reading the literature and real-time practice.

Problematising one's practice involves an element of risk-taking which can be uncomfortable, just as this curriculum work has involved assuming uncomfortable elements of risk, both strategically and reputationally. The introspective and self-exposing element can be emotionally arduous as the

authorial voice is deeply embedded in the data and framework. Dewey (1902) sounds a note of caution about the nature of self-criticality when he uses the word *'travail'* to highlight the emotional labour that can accompany this process:

> *'But this reconstruction means travail of thought.'* (p.3)

LaBoskey (2004) considers the challenges associated with self-study when she argues that outcomes from self-study can be intangible and difficult to measure. Unlike with a positivist approach, where measurement is often more objective and reproducibility is often an important feature, self-study measures validity and reliability through credibility, authenticity and trustworthiness (LaBoskey, ibid). She builds on the work of Coulter and Wiens (2002), arguing that self-study is not simply about theorising, but is more deeply about role-modelling and enacting one's words, which is important here in my practice as lead for Professionalism, and Associate Head of the MBBS Programme:

> *'Self-study researchers are both actors and spectators who act and think with regard to educational questions; they are attempting to be "good judges" who help others to be so as well.'* (LaBoskey, 2004, p.820)

She highlights the moral element fundamental to S-S and speaks to the responsibility inherent in conducting this type of research: to exhibit honesty at the risk of highlighting one's own weaknesses. This resonates with Robson's (2002) notion of undertaking *'insider research'* (p.120) with the burdens, biases and responsibilities inherent in researching within one's own institution.

Samaras (2014) explores multiple identities involved in self-study when she discusses her collaborative re-imagining of pedagogies using a transdisciplinary faculty self-study:

> *' I report from my lens as facilitator-participant-observer'* (p.117)

Her approach, as with mine, can enable a pedagogical alliance between students and teachers, discussed in Chapter 2. This stance fits with UCL's strategic aims as outlined in UCL's Connected Curriculum (p.40):

> *'Since the purpose of teaching is the facilitation of learning, we can only understand and evaluate our efforts and monitor the improvement of our practice, by attending to the cognitive, emotional, physical, social, and moral/ ethical development of our students.'* (LaBoskey, 2004, p.828)

Involving students invites democratisation of education and builds alliances, linking sympathetically with some of the themes introduced in my IFS (Gishen, 2018a): social justice and *'powerful knowledge'* (Harland & Wald, 2018) with students as 'agents of change'. Fielding (2010) describes these conversations as:

> *'…student voice partnerships…the importance of creating spaces for restless encounters between adults and young people in which they are able to re-see and re-engage with each other in creative, holistic and potentially transformational ways'* (p.61)

He discusses the:

> *'…potential of student perspectives to illuminate neglected realities and challenge emerging presumptions'* (p.62).

This again resonates with the principle of hearing and respecting voices, that underlies self-study. Self-study utilises a dialogic collaborative angle of social justice and consideration of power (Griffiths, 2002) to challenge perspectives:

> *'Grounded in social constructivist learning theory…learning is processed through previous experience so personal history and cultural context must be considered; and learning is enhanced by challenging previously held assumptions'* (LaBoskey, 2004, p.819)

This 'political' element which S-S can bring, is important and appropriate in this research, as a university context and the nature of its stakeholders as *'student activists'* (Clynch, 2020) intuitively lend a political flavour. At the time of writing, this activism feels particularly alive through movements such as Black Lives Matter and decolonising the curriculum (Gishen, 2019b).

4.4.2 Self-study as a methodology for curriculum research

Scholars including Eisner (1984) maintain that Schwab (see p.78) laid the foundations for what has subsequently grown into the academically recognised contemporary methodology of S-S:

> *'[Schwab] helped initiate a trend that has grown in each subsequent year. That trend has been the humanization of educational inquiry; the exploration, development, and refinement of humanistic modes of inquiry for studying classrooms and conducting educational planning.'* (p.204)

Hamilton and Pinnegar (2013) maintain that collaboration is fundamental to self-study of teacher education practices, involving collaborators as critical friends. Indeed, Clarke and Erickson (2004) argue that a fifth commonplace is missing

from Schwab's framework (see p.78): the self-study of education practices. They reason that:

> *'for teaching to occur, there must be somehow a way for an educator to know, recognize, explore and act upon his or her practice'* (p.207)

They theorise that balanced curriculum development depends on applying multiple critical lenses and perspectives to co-create any changes. Clarke and Erickson (2004) reinforce this view:

> *'The fifth commonplace (the process of self-study), conceived in this way, must facilitate a conversation that results in a curriculum that is both rich and rigorous.'* (p.201)

By adopting this extra dimension to collaborative Schwabian deliberation, as I have in my thesis research, self-study can act as a device to 'close the loop', allowing critically analysed and researched changes to be implemented.

4.5 Summary

In this chapter I have laid out, and justified, my blended framework of hermeneutic phenomenology and self-study as a bricolage methodology. As my professional doctorate has progressed, I have gained in confidence and ambition. I am therefore challenging myself by adopting what some may consider to be a riskier hybrid methodological approach. I could 'play it safe' by revisiting a single methodology; however, as discussed in my year 2 reflective statement (Gishen, 2017d), I wish to maximise my opportunities during this professional doctorate. Although I was initially apprehensive about using a

blended approach, I feel that my approach fits my professional practice problem and stakeholder needs and offers an appropriate platform to address my research questions.

Adopting new epistemological paradigms in this way can augment the field by offering enhanced perspectives on knowledge. Within the field of curriculum study, I have not encountered a similar hybrid co-methodological position to the one used here. I intend that this methodological design generates multiple perspectives on this research, akin to the multiple ‘lenses’ offered by the multidisciplinary team in clinical care. In my discussion, I reflect on whether this approach has enabled me to answer my research questions and consider whether adopting this position has been justified. I consider the hazards and justifications for selecting a blended methodology and whether the methodological choices could be judged as fit for purpose in addressing the research questions posed.

Chapter 5: Methods

> *'As we look to the future of medical education, we believe it's important to avoid zealotry with respect to pedagogical approaches, including that methods must adhere to specific criteria or that no deviation from pure is allowed. We can often serve our students best by fusing elements of various methods.'* (Schwartzstein, 2017, p.607)

5.1 Introduction

In this thesis I explore new territories and research them in novel ways by creating a 'mash-up' of methods (Clarke on *Twitter*, 2017) in order to best approach my professional practice problem. I anticipate that by triangulating my findings from different stakeholders, I will be able to apply different prisms to my practice problem, thus aspiring to *'serve our students best'* (as cited above). I have briefly introduced the three datasets in previous chapters but reiterate here for clarity, before I proceed to outline the methods in detail:

1. Autoethnographic data
2. Primary Student Survey
3. Student Focus Groups

Dewey (1902) captured my aspirations for this work and the ethos underpinning my multi-method approach when he said:

> *'...any significant problem involves conditions that for the moment contradict each other. Solution comes only by getting away from the*

> *meaning of terms that is already fixed upon and coming to see the conditions from another point of view, and hence a fresh light.'* (p.3–4)

In other words, my intention is that by using a combination of datasets derived using different methods and in analysing them thematically in an open-minded and reflexive way, I will allow fresh perspectives to emerge. As outlined in the previous chapter, this represents an *avant-garde*, potentially riskier approach. However, in the spirit of UCL's *'disruptive thinking'* (UCL, 2020d), I feel that this is in keeping with both the cutting-edge CM it researches and the cultural times that we find ourselves in (I refer to the disruption arising from Covid-19, Brexit, approaches to challenging conventional power, and new generational learning preferences).

I acknowledge that there are many other interesting and innovative methods currently being used to capture the student voice in HE, such as using listening booths (Sheffield Hallam University, 2019) and round table analyses alongside more established methods such as surveys and focus groups. Indeed, UCL's new feedback platform, UNITU: 'The Student Voice Platform', introduced in September 2019 allows the student voice to be heard in real-time and is one of the secondary data sources used in this research. Recently, the student voice has gained significant profile, as captured by Bourne and Loveridge (2018) in their description of 'radical collegiality':

> '*Identify(ing) diverse ways to include young people in research and in decisions concerning educational practices and policies' (front cover)*

However, they caution against tokenism:

> *'The very popularity of student voice at the current time generates a 'bandwagon effect' and, consequently, tokenistic and possibly short-lived interest*.' (p.1)

This concept of collaborating with students as education-shapers and leaders is discussed as #newpower (Timms & Heimans, 2018), in Chapter 2.

5.2 Rationale for a multi-method approach

I begin this section by setting out my theorising around using a multi-method approach. In considering this, I was influenced by Schwartzstein (2017) who argues for adapting research frameworks to match and keep pace with changing paradigms in medical education. Schwartzstein (ibid) is cited (p.101) as the key chapter quote.

Schwartzstein (ibid) argues for blended pedagogical approaches which may not adhere to conventional social science methods. This resonates with the open-minded approach that the EdD has fostered in me. Accordingly, I have chosen an unconventional blend of methods. I am taking advantage of the fact that more commonly than in a PhD, an EdD can adopt a reflexive and professionally relevant angle to address a professional practice problem (Gill, 2009).

Each of my chosen research methods has strengths and weaknesses and I anticipate that a combination of these will generate data with broader perspectives. As an aid to illustrating this multi-faceted angle, I draw on

Rossman and Wilson (1985) who like Schwartzstein (2017), argue that the unification of methods in some research circumstances can be beneficial in addressing certain research questions. They categorise researchers deriving from opposing epistemological and ontological positions, into *'the purist'* (who uses the single method and views methods as mutually exclusive): *'the situationalist'* (who believes certain methods can be used side by side): and *'the pragmatist'* (who believes in the integration of methods). I consider myself to be a pragmatist: this reflects my approach to clinical practice within the paradigm that palliative medicine offers real-world scenarios that often cannot be solved or reconciled, but instead require pragmatic compromises. In a similar vein my academic mentor (JD) talks of *compromise* as being a key factor in her experience of achieving organisational change.

Ross and Wilson (1985) present the view that social science research need not be 'binary', arguing that there can be an integrative middle ground achieved by combining complementary methods:

> *'Each method is useful in a specific…phase of the research process'* (p.631)

They argue that:

> '*a combination of methodologies in the study of the same phenomenon….allows holistic triangulation of the data'* (p.632)

which in turn allows research to theoretically improve the accuracy of findings, increasing the 'convergent validity' or corroboration. The authors suggest that this type of research needs to be approached in a provocative way, challenging assumptions (as per the underpinnings of self-study, see p.94):

> *'[a combined] method can be used at the analysis stage to corroborate (provide convergence in findings), elaborate (provide richness and detail), or initiate (offer new interpretations) findings from the other method.'* (p.627)

However, Rossman and Wilson (ibid) pose an important question, which I need to consider in not forcing the findings from different datasets together in an artificial way, but in trying to allow them to organically blend:

> *'With data generated from different methods, how can the researcher encourage the creative, useful, and insightful interplay?'* (p.629)

Although I do not have significant amounts of quantitative primary survey data (not enough to label my study as 'mixed methods'), I do have a mixture of qualitative and quantitative data, which I need to consider together. Denzin (1970) approved of this combination and considered the traditional divide of the theoretical schools of qualitative and quantitative research as presenting a 'false dichotomy'. In his work, he discusses inherent weaknesses and strengths that each approach can contribute. He rejects a polarised view of 'natural science' versus 'social science', and argues that when combined effectively, research methods may offer '*critical reciprocal roles'* (p.632) which are not mutually exclusive.

I concur with this view that whilst valuable in their own rights, a single method alone may be insufficient in researching complex terrain due to weaknesses inherent in each. By gathering data using one method and source only, I might risk omitting perspectives which aid deeper understanding of the practice problem. For example, broadly speaking, surveys generate generic and

superficial data, whilst focus group are unlikely to allow generalisable conclusions to be drawn due to their small numbers. For example, my IFS focus group data from 13 participants was not only underpowered to be able to confidently extrapolate my findings to healthcare learners outside of medicine, but would also not confidently allow me to generalise my findings to all UCL medical students as I only studied penultimate year students (Gishen, 2018a). I feel that it is important for research with potential to impact all UCL students (such as this study), is informed by data that capture broad cohorts, hence using a primary pan-student survey (Appendix 7).

Creswell (2015) also presents arguments that have been influential in allowing me to think creatively around methods and data collection. Although he focuses on mixed methods (which I am not using), I have applied his argument about blending methods to frame how my self-study notes can augment and complement other datasets to generate the application of multiple lenses on a problem. However, he highlights potential challenges and threats that can arise when fusing methods. He stresses the importance of rationalising and explaining divergent results. I am therefore cognisant of needing to integrate the datasets in my subsequent findings chapters in a way that allows them to complement each other and reconcile different approaches to my research questions. I do not wish any particular dataset to appear superfluous or incongruent. Thus, I adopt a multi-method approach, not to cement and unify my data, but to try to rigorously address the research questions and improve the argumentation of the conclusions drawn.

5.3 Research methods

5.3.1 Autoethnographic data

My autoethnographic note-keeping forms the dataset used to undertake the self-study element in the post-mapping critical analysis phase. As discussed in the previous chapter, self-study introduces an advanced level of self-criticality grounded in theory. The autoethnographic data allow my 'authorial voice' and unique perspective to be heard, and I anticipate that by incorporating my own reflective and reflexive account, the research will hopefully gain authenticity and trustworthiness, which I discussed previously as being a key tenet of self-study. The self-study approach also complements my clinical role as a palliative medicine physician, where my assumptions are often challenged by patients and colleagues, and where compromise and deep reflection are frequently required in practice to make sense of death and suffering.

I anticipate that my real-time critical reflections gathered throughout the mapping phase will likely act as 'critical triggers', leading to iterative and dynamic changes to curriculum mapping. This links back to my FoP assignment (Gishen, 2017a) which reflected on the power of formative *'critical incidents'* in shaping clinical practice.

I outline below how I document and evidence the data which underpin the S-S aspect of this work. I collect my autoethnographic data through a combination of keeping scratch notes, minutes from CM team meetings, and jotted down

thoughts and musings informally documenting my experiences during the curriculum mapping phase and beyond into the post-mapping analysis phase. These data are synthesised using thematic analysis (see p.119).

I chronicle my autoethnographic learning journey throughout the thesis data collection phase, whilst repeatedly challenging assumptions and using the literature to ground my approach in theory and act as a 'critical friend'. Whilst documenting my narratives, I frequently sought the views of real 'critical friends' including my supervisors (dRS, being a self-study expert) and my mentor (JD, a senior clinical academic) who was a co-architect of a previous UCLMS curriculum review, *'MBBS 2012'*. This approach has ensured that the data are interactive and improvement-aimed and that the research keeps focus on the social construction of knowledge through critical reflection and creation of *'appropriate disequilibrium'* (LaBoskey, 2004, p.829).

5.3.1.1 Streams of consciousness/ freewriting

As discussed in the previous chapter, I gathered the data for the self-study component of my thesis from a variety of field notes (see Appendix 4). Several of my autoethnographic entries are written as *'streams of consciousness'*: a narrative method that attempts '*to depict the multitudinous thoughts and feelings which pass through the mind of a narrator'* (Cuddon,1984, p.660). The term was coined by Alexander Bain (1855) when he wrote:

> '*The concurrence of sensations in one common stream of consciousness…enables those of different senses to be associated as readily as the sensations of the same sense'.* (p.359)

Streams of consciousness are similar to *'freewriting'*: a method of capturing spontaneous text which can be considered as a 'prewriting' technique in academic environments, including within education (Elbow, 1973; 1989). The main difference between the two is that freewriting normally happens for predetermined short periods of time (mine tended to be 10 minutes or so). On Wikipedia, freewriting is described as:

> '*a process of writing without stopping, without editing, without sharing, without worrying about grammar, without thinking, without rushing'* (Wikipedia, 2020b).

The technique is widely believed to produce writing which is uncensored and lively, without concern about conventions and technicalities. Freewriting produces raw material, and I have combined this technique with scratch notes (see following paragraph), doodles and informal diary entries to collect my thoughts and ideas on the curriculum mapping process, which I then proceed to thematically analyse.

5.3.1.2 Field and scratch notes

Wikipedia, one of the Gen-Zennial generation's preferred grey literature sources, says of field notes:

> *'Field notes refer to qualitative notes recorded by scientists or researchers…during or after their observation of a specific phenomenon they are studying. The notes are intended to be read as evidence that gives meaning and aids in the understanding of the phenomenon.'*

> *'Fieldnotes are particularly valued in descriptive sciences such as ethnography. There are two components of field notes: descriptive and reflective. Descriptive information is factual data that is being recorded…Reflective information is the observer's reflections about the observation being conducted. These reflections are ideas, questions, concerns, and other related thoughts.'*
>
> (Wikipedia, 2020c)

Whilst interpreting and analysing field notes, it is important to remember:

> *'[field notes] are recorded by an observer and are thus subject to…the conscious or unconscious bias of the observer.'* (ibid)

This method of collecting and synthesising different types of 'field notes' encapsulates Kara's (2015) practical practitioner's method of '*working in the cracks or spaces of life'*. Helen Kara's work is critiqued by Deborah Netolicky (2017) in the latter's online blog where the two writers exchange ideas and agree that *'good things happen in these spaces.'* In fact, working on this thesis during the maelstrom of the Covid-19 pandemic has truly meant capitalising on brief opportunities and working opportunistically in these 'cracks' or slivers of life. My particular methods of field notes include informally jotted 'scratch notes' and informal journal entries (see Appendix 4). Arora and Bubp (2017) describe scratch notes as being an *'essential tool in qualitative research'* and define them as:

> *'Scratch notes, also known as jots or jottings, are short notes written by a researcher, during observations and/or fieldwork, or shortly thereafter…Scratch notes employ various written forms such as shorthand, diagrams, phrases, words, images, and even doodles.'* (p.1)

They go on to say:

> *'This writing tool provides a visual mental marker that allows the researcher to recall distinct elements from their observation. These elements include…sensory details, emotions, behaviours, and interactions, which can add to or describe the observation or setting. The researcher later incorporates the scratch notes into their field notes.'* (p1)

These snatched and sometimes brief chronicling opportunities provided reflective spaces for pondering and troubling the CM project. I believe that this method of data collection unleashed in me what an IoE researcher, Ingrid Lunt (2012), describes as '*the imaginative professional'*. I synthesise my autoethnographic data into codes and themes using Thematic Analysis (p.119).

5.3.2 Primary Student Survey

In addition to my authorial voice captured through the discipline of self-study, I also wish to research the student voice in my thesis. In order to achieve this, I use a pan-UCLMS primary student survey.

At UCLMS there are six years of the MBBS programme, with approximately 330 students in each year (around 2,000 students across the programme). The survey was distributed four months after the launch of the MBBS CM (January 2020), in order to capture broad (some could say, crude) student views. The survey was anonymous, so I am unable to analyse the data according to gender or any other specific demographic: the only way I can distinguish between respondents is by the year group that they come from. Owing to this, I have no way to analyse whether there were trends in those who answered the survey and whether there were any biases as a result of this.

This survey therefore acts as a **'barometer'** for student opinion on the CM and offers a sampling frame for the entire UCLMS medical student population. It is offered here as a 'democratic' tool that gives students some agency in the post-mapping analysis and subsequent adaptations to the CM: it is not intended to be a statistically robust tool. The creation and dissemination of this pan-cohort primary survey was taken as an active decision for it to function as an inclusive means to gauge the 'feel' and attitudes of students towards the CM; its utility is as a *'barometer of student feeling'*. I accept that its simple design means that it has limited use for deeply understanding the data. It essentially offers descriptive statistics only. According to Brown (2010):

> *'…descriptive statistics are usually presented as supporting information to give the reader an overall sense of the direction and meaning of significant results.'* (p.352)

Generally, surveys can be effective and important in capturing the views of large numbers of participants, and as discussed above, the whole student body was invited to participate. The survey was an anonymised electronic questionnaire (see Appendix 7) which took approximately ten minutes to complete. It asked about functionality and opinions on the published CM, using a four-point Likert scale for (quantitative) responses, with an additional option for free text (qualitative) contributions. Four-point Likert responses were chosen for two reasons; firstly, this was the number used on the pre-mapping survey, thereby enabling some pre-and post-mapping data comparison. Secondly, there is a general UCL strategy to move away from using odd number Likert responses, to discourage respondents from 'sitting on the fence' and selecting the 'neutral' or average option. Indeed, limited data show that young adults in

particular, tend to opt for ‘midpoint responses’ when completing Likert scales (Raaijmakers et al, 2000). Raaijmakers (ibid) went on to investigate whether this likely represented a true neutral stance or ‘undecided’ and concluded the following in their cohort:

> *‘midpoint responses are used in the sense of ‘undecided.’’* (p.209)

In assessing reliability and validity of Likert scale responses, Lozano & Garcia-Cueto (2008) conclude that:

> *‘The optimum number of alternatives is between four and seven’* (p.73)

The primary survey questions are shown in Appendix 7, but are included below to guide the reader;

- *What year of the MBBS programme are you in?*
- *How useful do you find the Curriculum Map?*
- *How often do you use the Curriculum Map?*
- *How do you find the appearance and structure of the Curriculum Map?*
- *How do you find navigating the Curriculum Map?*
- *Does the content of the Curriculum Map match what you are learning?*
- *What do you use the Curriculum Map for?*
- *Which of the features have you found helpful?*
- *Do you use the Curriculum Map for learning about professional attitudes and behaviours?*
- *How satisfied are you with the Curriculum Map?*
- *Free text responses*

The survey was initially piloted on UCLMS clinical teaching fellows (CTFs) to ensure that questions were clear and concise before being cascaded to students via an email, linking to the Moodle (VLE) Curriculum Map page.

Following questioning in my doctoral upgrade panel (April 2019) about potentially having to manage large numbers of student survey responses, I was prepared to use a sampling technique of electronically selecting one in three of the responses to analyse, in order to manage the possible large amounts of data. The pre-mapping survey had had 409 responses, so this was raised as a large volume of responses to process in the context of analysing two other datasets (self-study and focus groups) in this post-mapping analysis. As I discuss in Chapter 7, the actual number of students who completed this CM analysis survey was 232, representing around 11-12% of the whole student cohort. The number of responses therefore formed a manageable dataset and I was able to analyse all submitted surveys. The survey free text (question 11) underwent synthesis using TA (see p.119).

The student survey generated '*preliminary general outcomes'* (Bell, 2010, p.12) that were explored in further depth in subsequent student focus groups. Due to the limited number of quantitative Likert-rated questions used here, and the qualitative free text option, this method does not sufficiently fulfil a quantitative component required to qualify this research as 'mixed methods' (which places equal weighting on the quantitative and qualitative methods). My research model therefore constitutes a multi-method study.

Regarding the use of secondary data in this study, this was very limited. A single source of secondary data in the form of the UCL Student Experience Survey was cited in Chapter 1 and provided for reference as Appendix 2. Other

secondary data from sources including Student Staff Consultative Committees and Unitu (the real-time feedback platform, Appendix 6) are also mentioned.

5.3.3 Student Focus Groups

Student focus groups form the third method in my multi-method study. As stated in the section above, the question schedule (Appendix 10) was informed by the preliminary pan-student survey responses.

Focus groups have advantages and disadvantages as a method for data collection (Gibbs,1997; Johnson,1996; Bryman, 2012; Robson, 2002). Focus groups are defined by Powell (1996) as:

> *'a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research.' (*p.499)

Unlike with individual semi-structured interviews (that I used in my MoE2 study; Gishen, 2017c), focus groups can capture multiple diverse attitudes and experiences rapidly and economically. The richness of data generated by focus groups enables data generation to be efficient, with data saturation achieved relatively quickly (Fusch & Ness, 2015). Saturation is achieved when there is sufficient information to replicate the study, when the ability to obtain additional new information is exhausted and further coding is unnecessary. This can be a useful method for examining consensus or variation in consensus, which may present as participants' diverse views (Fusch & Ness, 2015).

Within a focus group, the social gathering and interaction itself can aid facilitation of the conversation. The interactive format can enable participants to question each other, moderate their views, and learn. Focus groups are normally relatively non-hierarchical and have been used as devices to empower participants (Johnson, 1996). They can also enable those taking part to feel valued within research, which fits with my earlier comments about *'students as agents for change'* (Harland & Wald, 2018), empowering them to contribute in creating co-pedagogies. Robson (2002) suggests that focus groups often have:

> *'natural quality controls....extreme views tend to be weeded out'* (p.284)

and that participants may enjoy the experience of participating in them.

Focus groups can generate rich, co-constructed meaning (Gibbs, 1997), which fits sympathetically with the hermeneutic phenomenological framework that I have adopted. Studies into institutions have been used to explore complex areas such as peer interactions (Bryman, 2012). Focus group work can be undertaken to increase understanding: with a goal to effect change either individually or more widely, as is the intention here. By offering to share my findings and potential real-world applications, I hoped to actively demonstrate recognition of students' valued contribution to this research.

However, there are also weaknesses inherent in the use of focus groups. This method, whilst offering flexibility in an economical forum, is limited in terms of time and therefore the number of questions that can be addressed. Participants' individual views sometimes risk being overtaken by group culture, especially if

there are dominant characters present, leading to *'generalisation'* of data (Robson, 2002). Another potential limitation is that quieter, less assertive individuals may not always speak or 'be heard'. The views of some individuals therefore risk being underrepresented.

A further limitation, applicable to studies using focus groups, is that the context of a focus group may inhibit true expression of individual views (Gibbs, 1997):

> *'Problems arise when attempting to identify the individual view from the group view.... the role of the moderator is very significant. Good levels of group leadership and interpersonal skill are required to moderate a group successfully.'* (p.1)

This issue needs to be skilfully managed by the facilitator, through prompting and responding to non-verbal cues. A risk here is that as a senior clinician educator, known to many of the students, I could potentially stifle expressed opinions or critical debate. Another role of the facilitator is to put participants at their ease, and again the risk here is that due to my position, I may not be able to easily achieve this.

Students from all years were sent a recruiting email via the Moodle Curriculum Mapping page, four months after publication of the CM (January 2020), following completion of the student survey. From respondents, the focus group sample was drawn. I aimed to recruit a diverse student cohort (different years of the programme, male and female, not exclusively student representatives). Two focus groups were conducted, each with between 8-12 participants. These were

divided into ‘early’ and ‘later’ years focus groups, to increase cohesion and reduce potential intimidation of junior students around their more experienced peers.

Students who initially expressed an interest in participating received a Participant Information Sheet (PIS) and a consent form to read in advance (Appendices 8 & 9). They were informed that they were able to withdraw at any stage. Due to the numbers of interested respondents, all students who expressed an interest in participating were invited to join the focus groups, although a small number of these did not attend on the day. A trained departmental clinical fellow and I were in attendance.

At the focus group itself, participants signed a consent form stating that they agreed to the discussion being confidential. However, there was no guarantee that students in the group would keep what they discussed private afterwards, therefore confidentiality was not absolute. The students were not coerced into contributing and were cognisant of the implications of sharing their views in this forum. They were informed of the intended uses of the study and were offered to view the thesis on completion, in accordance with my UCL ethics application. This was in recognition that they would be co-constructors of the knowledge generated from this study. Students were assured that data would be anonymised and any data subsequently in the public domain (e.g. posters or publications) would not identify them, patients or clinicians.

Open-ended questions were used with additional ‘prompts’ and ‘probes’ to explore areas more deeply (Appendix 10). Groups were recorded and

transcribed using a dedicated transcription service, *'Way with Words'*. The students were allotted a letter and number to help identify any patterns when analysing the data. For example, the first female to be allocated became 'F1' and the third male became 'M3'. Before answering a focus group question, they were required to identify themselves using this code, but not to give their names. In this way anonymity was not absolute in the transcript, but as the recordings were destroyed soon after, it was unlikely that students could be identified.

There are advantages and disadvantages to using a transcription service; whilst being more time economical, less nuanced data are potentially generated than if personally transcribed by the researcher. The transcript was stored according to UCL Data Protection regulations (as per Data Protection section in UCL Ethics Form). It was password protected and stored on an encoded memory stick. As stipulated under Data Protection, the transcript will also be disposed of after this research has been completed.

5.4 Thematic Analysis

As described above, the focus group was recorded and transcribed, and the transcript was 'data cleaned' shortly after receipt by me, to improve accuracy (transcripts are not included as appendices but are available on request). Using a good quality transcription service that notes pauses, stuttering and errors in speech, laughter, background noise enabled me to analyse nuanced subtleties of the discussion which augmented the content. Fairclough (1989) describes

three interrelated processes required for deep thematic synthesis of texts, as being *'interpretive and explanatory'* (p.372):

- Text analysis (description)
- Processing analysis (interpretation)
- Social analysis (explanation)

In Fairclough's later work (1995), key questions for text analysis are described, including consideration of use of active and passive voice, mood, thematic structure of text and cohesion devices (p.110). This resonates with the principles of Critical Discourse Analysis (CDA), as a research tool for analysing texts. In the context of CDA, Janks (1997) discusses the depths and complexities of research texts:

> *'most texts are hybrids, which draw on more than one discourse'* (p.335)

I appreciate that had I personally transcribed the focus group I could possibly have gained deeper immersion in the data. However, I required a pragmatism (note link to Ross & Wilson, 1985, p.104) in terms of triaging and conserving my time, a factor common to those undertaking professional doctorates, as discussed by Lee (2009).

I synthesised data from my autoethnographic notes, the focus group and free text from the survey, by looking for common or 'key' codes and themes which occur most frequently (Braun & Clarke, 2006). TA is a well-tested method used within psychology and other healthcare research (Braun & Clarke, 2014) as well as education. Braun and Clarke (2006) describe TA as:

> ‘*an accessible and theoretically flexible approach to analysing qualitative data’* (p.77)

No theory is built into TA, which makes it an adaptable method which can fit with multiple methodological frameworks. Braun, Clarke and Hayfield (cited in Smith, 2015) say:

> *‘TA provides a **method**– a set of theoretically independent tools for analysing qualitative data. This means doing TA is like arranging your own holiday: you choose which flights you take, where you stay, and how you get around.’* (p.224)

There are numerous classifications available, but fundamentally it is a method underpinned by a common broad approach, the sophistication of which depends on the depth of analysis and engagement with the data. The approach is interpretative and inductive, adopting an exploratory approach to data. Miles and Huberman (1994) describe TA as an inductive reasoning approach which begins with specific observations, detecting patterns in the data, formulating some tentative hypotheses and ultimately leading to the development of some general conclusions and subsequent applications.

There is general consensus amongst TA scholars (Braun & Clarke, 2006; Boyatzis, 1998) that there are normally three to five themes, or ‘central organising concepts’, identified in the data. These key themes must capture something important in relation to the overall research question. Dey (1993) describes this analysis as the breaking down and building back up of data. I chose not to use NVivo analytical software to aid in the organisation and coding of the transcripts e.g. word frequency, word mapping, attributes, modelling, but rather synthesised data by hand. I performed a line by line analysis, initially breaking the data down and then rebuilding it by developing descriptive codes

and sorting these into unifying themes by detecting patterns repeated in the data (see Appendix 5 for my Coding Frames). Brooks (2017) describes codes as '*building blocks'* whilst Gibbs (2007) calls them *'placeholders'*. Codes reveal themselves as the researcher seeks relational factors in the data.

The value of TA is described in Braun and Clarke's seminal paper (2006):

> *'Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data'* (p.78)

and by Boyatzis (1998):

> '*Thematic analysis is a process for encoding qualitative information*.... *A theme is a pattern found in the information that at the minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon'* (Preface, p.vii)

Braun and Clarke acknowledge the influence of the researcher in TA:

> *'...there needs to be an ongoing reflexive dialogue on the part of the researcher or researchers.... throughout the analytic process'* (p.82)

Nowell et al (2017) discuss the importance of trustworthiness specifically in the context of thematic analysis, saying:

> *'To be accepted as trustworthy, qualitative researchers must demonstrate that data analysis has been conducted in a precise, consistent, and exhaustive manner through recording, systematizing, and disclosing the methods of analysis with enough detail to enable the reader to determine whether the process is credible.'* (p.1)

Braun and Clarke (2006) regard TA as a versatile and non-judgemental method to approaching data analysis:

'Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data' (p.78)

5.4.1 Reflective thematic analysis

Multiple TA classifications exist (Braun & Clarke, 2014; 2016), with global agreement that the depth of engagement with data is key. The sub-type generally referred to as Reflective Thematic Analysis (RTA) allows for deep and personal interpretations and considers the researcher's own views and biases:

'...there needs to be an ongoing reflexive dialogue on the part of the researcher or researchers.... throughout the analytic process' (p.82)

This fits sympathetically with my self-study methodology and hermeneutic phenomenological framework. Looking back to my IFS (Gishen, 2018a, p.67), I summarized Reflective TA as follows:

Reflective Thematic Analysis	Organic & fluid 'Tells a story' Fully realised themes Reflections & 'lens' of researcher key in analysing data Inductive	Interpretivist 'Big Q qualitative'

Table 2: Reflective Thematic Analysis (Gishen, 2018)

5.5 Presentation of themes

In the subsequent findings chapters, I sort and group quotes from both the focus groups survey question around the research question to which they 'belong'. The findings are therefore presented as an exploration of the research questions. In this way, I start to weave a narrative from the data, contextualising the purpose and relevance of this work and exploring my professional practice problem. The findings from each dataset are initially considered separately and subsequently interwoven and considered together in a section concerned with triangulation of the data. The aim is to find cohesion and corroboration in the overall argument, as opposed to corroboration in data, thus offering sense-making and triangulation. I explore how findings reinforce and challenge those of the other datasets. I look for contradictions and biases as well as any personal conflicts that arise from this type of insider research (Robson, 2002). As discussed under Methods, I consider trustworthiness (LaBoskey, 2004) as a surrogate measure for reliability and validity, as used in quantitative research (see Chapter 10).

I had used this method in my MoE2 (Gishen, 2017) and IFS (Gishen, 2018a) assignments, and this had had given me confidence and understanding of the method as well as an opportunity to pilot it prior to my thesis. I have been able to build more depth and complexity into my use of TA in different assignments. I have become less tentative and more confident in my engagement with this method of data analysis throughout my EdD (Gishen, 2017b, 2017c, 2018a).

5.6 Ethical Issues including Insider Research

Ethical procedures exist to protect the principle of non-maleficence to participants, one of the core principles at the heart of the practice of medicine enshrined in the Hippocratic Oath. The Concordat Act (2012) and British Psychological Society (2018) provide valuable guidance for researchers, which I have drawn on for this study. There are many transferable professional skills and ethical considerations between medicine, education and research.

The principle of doing least harm is fundamental to my doctoral work, as in my clinical practice. Consistent with the Concordat Act (ibid), in this research I aimed to abide by the pillars of medical and ethical practice; beneficence, non-maleficence, autonomy and informed consent. All participants in the survey and focus group were undergraduate students and therefore, adults. I appreciated the need to create a safe overall environment within which data collection could take place. There were important considerations around confidentiality, such as considering who had access to the data gathered, and for what purpose. The ethical implications of the focus groups included the premise that participants should only share what they were happy for others within the group to know, albeit their words have been anonymised in the data. I considered how I would feel if I were a participant.

It is often assumed that increased self-awareness through discussion and reflection will be useful to individuals but there is also the possibility that some individuals can increase their self-rumination behaviours and be unable to ignore harmful thoughts. This may theoretically precipitate the constant

questioning of their motives and actions. Had this risk to a student been uncovered during the focus group, I would have needed to stop data collection and debrief the student, potentially referring him or her to a specialist service via the University's student support network or their general practitioner. I was aware of the possibility that whilst completing the questionnaire or participating in the focus groups, there was a remote possibility of a student revealing an illegal act (such as drug taking), which I would have been obliged to report to the relevant authority as a mandatory duty. This is outlined in *The Care Act; Safeguarding Adults* (2014). I would have needed to warn the student that I was obliged to disclose this, thus confidentiality in the focus groups was not absolute. However, although these possibilities required consideration, they were remote, and happily did not arise.

This type of study has potential to expose individuals' vulnerability e.g. in focus groups, especially where the researcher facilitating the group is a senior member of Faculty. As this research was conducted inside my own organisation, I was mindful of the existence of power dynamics (that exist within all organisations) which can reveal themselves through what Robson (2002) describes as 'insider research', as mentioned in Chapter 1. By 'insider research', he (and I) refer to research conducted by members of organisational systems and communities in and on their own organisations, as opposed to organisational research that is conducted by researchers who temporarily join the organisation for the purposes and duration of the research (as described by Adler and Adler, 1987).

Brannick and Coghlan (2007) challenge the negative connotations that can arise around insider research whilst acknowledging the potential challenges and pitfalls of conducting such research. They group these threats as:

- **access** (how status and hierarchies influence access to networks, participants, data)
- **preunderstanding** (researcher knowledge, experiences, insights, assumptions)
- **role duality** (potential conflicts; which 'hat'; 'spying')
- **managing organisational politics**

Insider research is a relatively new research paradigm, as until around two decades ago, the dominant approach in organisational studies was one of positivism based on the theory that only an independent, value-free researcher can effectively undertake research on an organisation. Interpretivism, which frames my study, is a comparatively new methodological approach to organisational research (Johnson & Duberley, 2000). This paradigm shift acknowledges that the researcher is an engaged participant whose critical and analytic observation of the culture is integral to the research activity. This resonates with my chosen blended methodology of hermeneutic phenomenology and self-study, as these acknowledge and embrace the notion that lived experiences can be key to theoretically underpinning organisational research.

Brannick and Coghlan (2007) write that:

> *'Subjective interpretation is key to the research process. Here, the process demands that the researcher get close to the research subjects on their home ground.'* (p.64)

However, an important aspect of insider research is the role that the organisation plays in having a stake in the research. Coghlan and Brannick (2014) reflect on how systems and researchers may or may not have a commitment to self-learning from the research.

I am aware of wearing 'two hats' (educator and researcher) and the need to minimise blurring of these roles, with consideration of my boundaries. I need to be conscious of any research *'gatekeepers'* (Robson, 2002) who may bias outcomes, and I do this by acknowledging potential vested interests of different parties. Robson (2002) discusses 'gatekeepers' within insider research as being stakeholders who may exhibit overprotectiveness and thereby inhibit access to consents, participants and data.

Whilst conducting this insider research, I aimed to maintain what I alluded to in Chapter 4 as Heifetz and Linsky's (2002) *'balcony view'*. The authors (ibid) draw an analogy of being immersed in something and developing tunnel vision as if on a dance floor, because of one's closeness to content and personal drivers. The authors suggest *'retreating to the balcony'* to view the scene from above with enhanced perspective. They maintain that it is important to:

> *'set aside your special knowledge of your intentions and inner feelings, and notice that part of yourself that others would see if they were looking down from the balcony'* (cited in Manoogian, 2009, p22)

Manoogian (2009) describes '*balcony work as a curious blend of the cognitive and the creative'* (p.23), which encapsulates how I view my thesis research.

5.7 Limitations of this study

I used a small sample size for the focus groups, which leads to limitations in transferability of findings to larger 'local' populations, or indeed wider populations of medical students or other healthcare learners in a national or international context. Therefore, an identified limitation of my research is that data are specific to my investigated population and may not necessarily be generalisable to larger cohorts at UCLMS or to wider communities of practice, including other healthcare disciplines. As this study has been conducted in one UK medical school only, I also cannot be sure that findings could be transferable to other medical schools.

As well as the inherent methodological limitations of focus groups, discussed in an earlier section, I would have ideally liked to have conducted further focus groups, if I had had more capacity. This may have enabled broader data collection from more participants. I cannot be sure that my existing two focus groups gathered sufficient data to allow for saturation, as previously discussed.

As acknowledged, I did not transcribe the focus group myself, but for reasons of time and priority, I used a transcription service which may have limited my full immersion in the data. I therefore accept that I may have missed some of the nuanced contributions, including noting any non-verbal cues. In addition, the sample of participants was not truly random, as those with an interest in focus groups (either positive or negative) came forward to participate. This could also

be said of the survey sample participants, as this sample frame may not have represented the true diversity of the UCLMS student population.

My data from all three datasets are very young and ‘fresh’, and it will therefore be difficult to draw definitive conclusions and correlations about the CM project analysis, which would ideally go through several academic cycles and be improved and iterated before being critically analysed. My own thoughts on the project are still ‘distilling’, and not all students (i.e. Year 6) have had access to their dedicated CM page this year, so their views may also develop and settle over time.

5.8 Summary

In this chapter, I have presented my ‘mash-up’ of research methods and outlined the intended value of complementing three different data sets which each offer a different lens on my research questions and problem of practice. Each of these methods has relative advantages and disadvantages: the autoethnographic narrative is unashamedly biased towards my own values and attitudes; the primary student survey is a surface barometer to gauge the climate around the CM as opposed to a sophisticated quantitative tool; and the focus groups whilst offering rich and in-depth data, were limited to two in number and not personally transcribed by me. Nonetheless, in the subsequent findings chapters, each of which deal with a separate dataset before considering all the data together, I endeavour to find congruence and meaning

emerging from the different methods used. Whilst acknowledging that the methodology and methods in this thesis are quite complex, I look for a joined-up ‘story’ in the findings by trying to connect the threads or ‘themes’. Towards the end of this thesis, I consider in my discussion whether the multi-method approach has been justified: I do this by asking whether my research strategy has successfully answered my research questions and professional practice problem.

Introduction to Findings Chapters

The presentation and analysis of my findings forms the largest portion of this research. In this part of my thesis, I analyse the three datasets separately, each in its own chapter. In this way, the hybrid methodological framework and multi-method approach which underpin my position in addressing the research questions (repeated below to refresh the reader's memory) can be considered systematically. Thematic analysis (TA) is used to organise the qualitative data: patterns commonly repeated in the autoethnographic data, free text from the survey and focus group transcripts are sorted into 'codes' to build 'themes' (see Appendix 5). These themes form the underlined headings in these chapters. I also analyse the quantitative survey data using descriptive statistics to sample the student population and complement the qualitative data (Chapter 7).

The findings from each dataset are interwoven and considered together at the end of Chapter 8. As outlined in Chapter 5, the aim is to find cohesion in the overall argument, as opposed to corroboration in the data, thus offering sense-making around the research questions. I explore how my findings reinforce and challenge those of the other datasets. I look for contradictions and biases as well as my own reflexive outcomes that arise from undertaking this piece of *'insider research'* (Robson, 2002).

Reiteration of the research questions as an *aide memoire*

- **What do stakeholders involved in curriculum mapping perceive the project's purpose and drivers to be?**

- **In what ways does the UCLMS Curriculum Map reflect the syllabus, and how do the stakeholders judge this?**

- **How effectively does the CM capture the *whole* curriculum including professionalism and other 'soft' skills?**

Chapter 6: Findings Part I : Autoethnographic Data

> *'In undertaking this work, I notice overlapping circles with multiple facets of my life; clinical, educational, professional, personal…it's hard to compartmentalise and tease them apart.'*
> (FG, November 2019)

6.1 Introduction

In this first findings chapter, I organise and synthesise my autoethnographic data around the research questions, considering the project's drivers and outcomes and my own expectations of the project. I contextualise the CM project within the complex systems of the university and healthcare. The italicised headings correlate with synthesised themes.

6.2 Autoethnographic Data about what I perceive the mapping project's purpose and drivers to be

6.2.1 An exercise in meeting the metrics

'WHY HAVE A CURRICULUM MAP?' (FG, November 2018)

I began the curriculum mapping project in October 2018 and wrote the question above in capital letters in my reflective diary at the start of the project. I approached the project with what I would now say in retrospect, was some naivety. My searches had revealed a limited literature on curriculum mapping in

undergraduate medicine, and I had made the assumption that this was because the medical education community did not always approach innovation in a scholarly way, with teaching and learning practices being rigorously evaluated and published. However, it became evident following early enquiries of other medical schools, that a key reason for the dearth of literature was that the complex feat of mapping a medicine programme had rarely been undertaken. Few UK medical schools (or indeed schools internationally) had attempted to map the curriculum in the way that I was aiming to by electronically depicting the undergraduate medicine syllabus.

I had underestimated the enormity and complexity of the project, which many colleagues saw as fitting into the 'too hard to do' category. The 10-month deadline for publishing an electronic syllabus loomed large. Following my appointment as academic lead for the CM project, a number of my colleagues made comments such as '*rather you than me!*' I managed these daunting feelings by returning to basics and documenting what I felt to be a key goal of the CM project:

> *'…aiming for some simplicity in a climate of complexity; I need to prevent the enormity becoming overwhelming…'* (FG, October 2018)

I do not recall whether I wrote this with my own position or that of students primarily in mind. However, it seems to capture both parties' views, with simplicity and usability (*'easy', 'link'*) also borne out in the pre-mapping student survey and focus group data (see Figure 7).

I began by trying to understand why this project had been imagined. It became evident through discussions with senior colleagues that the drivers were more complicated than they appeared on the surface. As discussed in Chapter 2, the overt message from UCLMS' leadership was that the CM had been imagined in order to demonstrate compliance with the GMC's *Outcomes for graduates* (2018), and as a tool to provide evidence for forthcoming regulatory inspection. However, there were deeper layers that were more covert and needed thoughtful and strategic unpicking. These were principally around the agendas of 'fixing' the poor metrics in the National Student Survey (NSS; see Appendix 1) and other institutional measures, including the UCL Student Experience Survey (Appendix 2). With deeper probing, it was emerging that the University had a direct stake in the success or failure of the CM, as UCL Medical School is a key contributor to the University's NSS and Teaching Excellence Framework (TEF) scores.

As a department within the Division of UCL Medical School, we also had our own disappointing local feedback and metrics arising from Staff Student Consultative Committees (SSCC) and Student Evaluated Questionnaires (SEQ). These in turn, reflected poorly on the Faculty of Medical Sciences and beyond that, the School of Life and Medical Sciences (SLMS). My preliminary discussions revealed that this tool was commissioned specifically to fix poor feedback and metrics on assessment. Here, I refer the reader back to Table 1 (p.31) that I used in laying out the background to this work. There was clearly a deeply entrenched issue of uncertainty and an element of mistrust by students and I felt sceptical that the CM alone would be able to fix this.

6.2.2 Compromise in leading educational change

Here, I group some of the challenges that I experienced and wrote about during the leadership of the CM project; namely the weight of organisational expectation balanced with personal growth and opportunity; the loneliness of leading a project in the face of inertia; and seeking compromise.

As mentioned previously, in tandem with my EdD I have attended a bespoke UCL Arena ‘Leading Change in Education’ course (commenced November 2019, unfinished due to the Covid-19 pandemic). Through this course I have studied some of the theories behind change leadership and management, considered generational learning styles and contemplated what sort of leader I was. The relatively new concepts of student as ‘consumer’ (since the introduction of student fees in 1998), and the marketisation of higher education (Chapter 2) were introduced to me. This parallel learning has undoubtedly contributed to and shaped my approach to this research and contributed to the complexity of my thought around some of the ‘political’ elements of the CM project.

I undertook a self-assessment exercise through this course, linked to Timms and Heimans’ (2018) theory of leadership styles. I emerged as a ‘crowd leader’ (see Figure 12, below). This translates as a leader who embraces ‘new power’ models and values. This may have resulted from working predominantly with Gen-Zennial learners and being the mother of children in this generation.

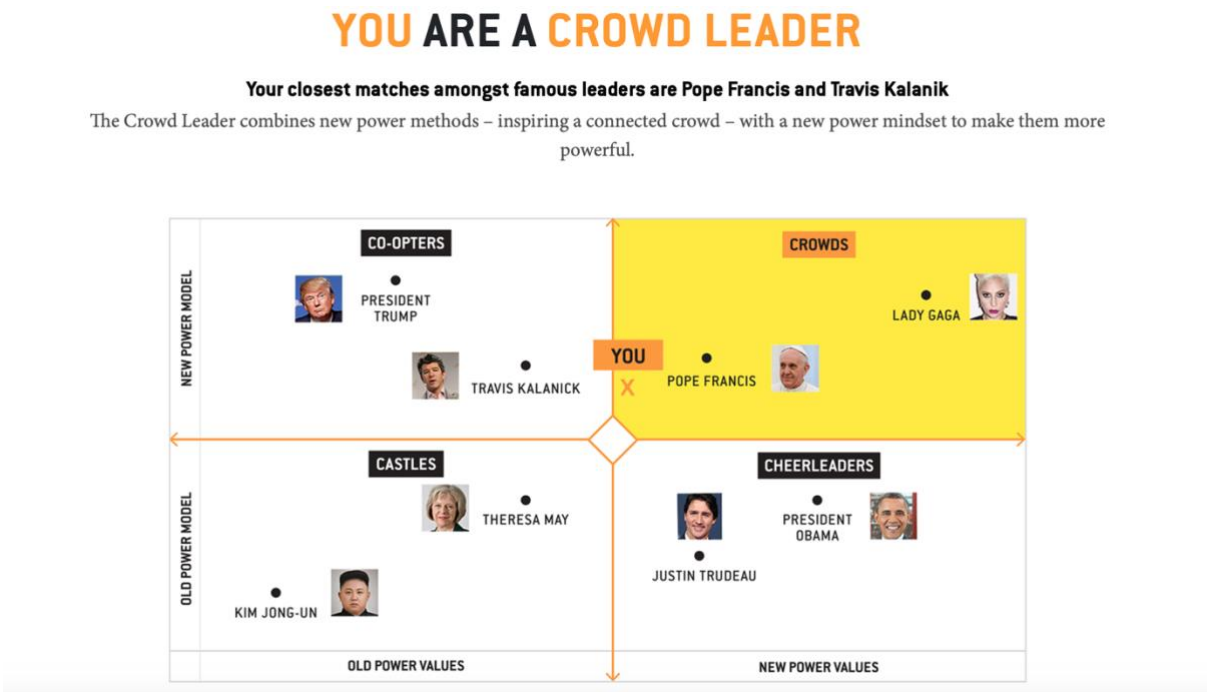

Figure 12: Personal leadership styles (Timms & Heimans, 2018)

However, I am fairly central in the distribution; I sit close to the 'co-opter' category, with traits of old power. Therefore, I question whether I am caught between old and new power? New power, due to the influence of medical students (with me as EdD student too), tempered by being a professional in a closed system *'zealously guarding'* (Timms & Heiman's, 2018, p.2) the privileges of old power?

At the start of the project, having paused to *'notice'* (Mezirow, 1981) some of the issues underlying the commissioning of the CM, I wrote somewhat pessimistically and dejectedly about the project:

> *'I see this project as a wicked problem, considering the vexed question of whether it is actually possible to map a medical curriculum. I fear it may be doomed to fail.'* (FG, October 2018)

This entry reflects my apprehension about failing to produce a meaningful product, and of inadequately meeting the drivers for its creation (overt and covert). I felt the weight of expectation on my shoulders and was fearful of disappointing my community, namely students (who had high expectations for this tool to revolutionise their learning and assessment) as well as clinician educator peers and line managers. In short, I wondered whether I had taken on a 'poisoned chalice' and was fearful of the reputational damage that failing in this could generate. I started to ask myself searching questions about the powers driving the project, and whether I truly had any agency in it:

> *'Who is my master/ mistress?*
> *Why am I doing this?*
> *Does the metric triumph?'*
> (FG, October 2018)

With a growing awareness of the importance of collaboration with colleagues and students as being pivotal in this project's outcomes, I became concerned about the risks posed by 'non-compliant' colleagues. I was aware of some opposition to change (from academic and administrative colleagues) and the risk of increasing people's workloads (both perceived and real) in building the CM. I viewed the project as being political, acknowledging:

> *'…the risk to colleagues' power, footprint and money that this project could bring'* (FG, October 2019).

Kotter (2012), in outlining change management strategies discusses '*resistance; always waiting to reassert itself*' (p.138) and refers to organisational '*resisters [exerting] irrational and political resistance'*. Kotter (ibid) maintains that this may masquerade as *'looking like the good [corporate] citizen*

while [being] political, self-serving, or incompetent' (p.117). This led me to consider strategies to manage such resistance with my mentor and critical friend (JD), drawing parallels with projects that she had been involved in as past Director of UCLMS; '*MBBS 2012',* and nationally during events including the junior doctors' strike (2016):

> *'Talking to JD reminded me that* ***compromise*** *is vital to this project. Politics, money, footprint all shaped how much she and other key architects were able to change previously in the curriculum. There were things that she would have liked to have done but was not able to; she advised me to pick my battles.'* (FG, February 2019)

Here I appear to be tempering and managing my own expectations. Indeed, my project mantra which I repeatedly shared with my team was:

> *'We can only do what we can do, good is good enough. Perfectionism is not always possible- or a virtue…'* (FG)

Having determined that the CM would depict the syllabus, my next pedagogical challenge in the exercise was determining what constituted 'core' versus 'non-core' (and therefore featured in the CM) whilst communicating this strategically and sensitively to colleagues. It has long been evident to me that throughout education, 'specialists'- be they teachers of geography, biochemistry or orthopaedic surgery- consider their area of expertise to be of the utmost importance. This is in equal measure, heartening and frustrating. I have rarely met a colleague who will willingly surrender curricular footprint and influence within the course, and thereby relinquish profile and power. An example of this is illustrated in my email (below) to a contributing specialist from a 'minor' undergraduate medical specialty (featuring more heavily as a postgraduate

field) about how much detail he should include in the MBBS map, without causing offence:

> *'Of course, you have hit the nail on the head in identifying the balance between 'core' and not, for an FY1.'* (FG from an email to a colleague, January 2020)

I have needed to sensitively manage the challenges of communicating feedback and in doing so, have been influenced by evidence about the *'psychological safety [and] contextual conditions'* that influence the giving, receiving and impact of feedback (van der Rijt, 2012). I have been particularly mindful of this in the context of exacerbated stressors during the Covid-19 pandemic. In addition, recent literature on incivility and its negative impact on developing and learning, (Cheetham & Turner, 2020) has impacted on how I have negotiated with colleagues. At times, the CM exercise felt like an exercise in diplomacy, with an agile approach required to deal with different stakeholder groups: the regulator, students, colleagues, CM project team members, and myself. These lenses and skills have needed to be applied equally in this post-mapping critical analysis.

During the CM project and beyond into the post-launch and analysis phase, I felt that I repeatedly had to corral some of my colleagues to *'defrost a hardened status quo'* (Kotter, 2020, p.24). I imagine that this is partly due to some clinical academic colleagues having been somewhat worn down by many years working within a National Health Service (NHS) where bureaucratic whims seem to dictate change, and where clinicians feel that they are at the mercy of politicians and managers. Some cite an ethos of *'responsibility without authority'*

(Markowitz, 2015) which I discussed in earlier EdD work (Gishen, 2017a). At times, I have empathised with this view, feeling as if change is an unwelcome additional burden. One colleague said to me about the CM project:

> *'We are all busy. By asking us to undertake this extra work, are you implying that we aren't already working hard enough?'* ('P', December 2020)

At times, I found it helpful (and perversely cathartic) to consider the Harvard Business School's 'boxing' of colleagues into the categorisation tool shown below (Casciaro & Lobo, 2005). It is light-hearted, whilst also being helpful in considering colleagues' responses to the project.

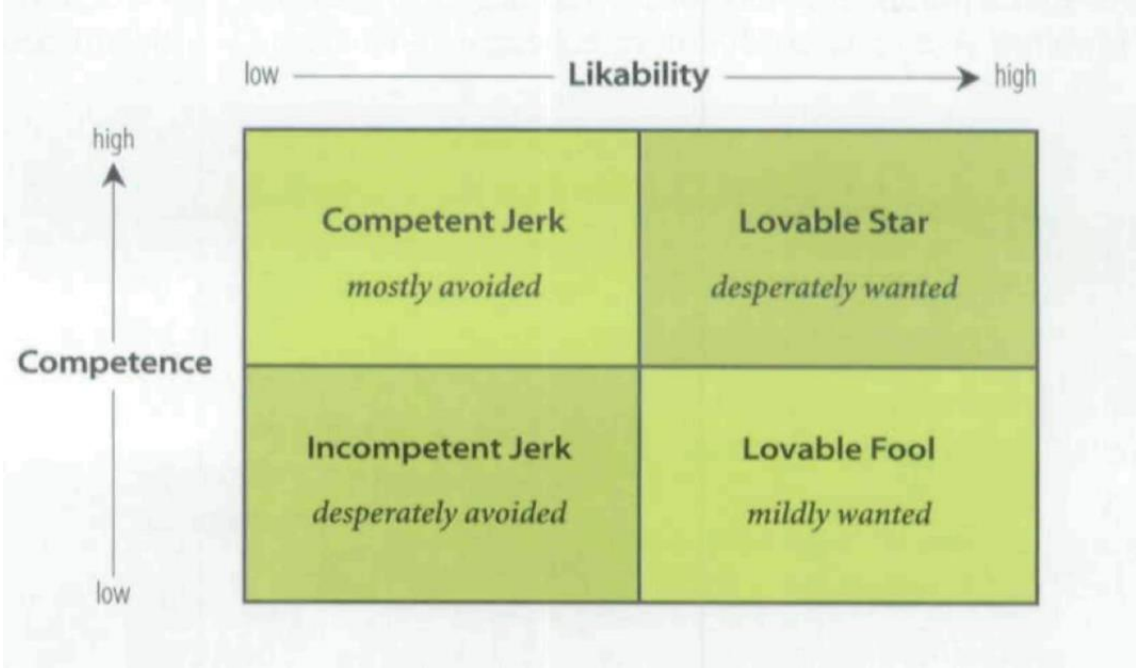

Figure 13: Harvard Business School categorisation (Casciaro & Lobo, 2005, p.95)

The authors (ibid) say that this categorisation can be helpful in understanding dynamics within organisations:

> *'One of management's greatest challenges arises from a natural tension inherent in every organization. People are brought together because they have the variety of skills that, in concert, are needed to carry out a complex activity…. informal relationships play a major role.'* (Casciaro *&* Lobo*,* 2005, p.92)

Considering this model enabled me to rationalise some of the behaviours I was witnessing in some colleagues, whilst retaining an element of humour necessary for me to remain resilient. For example, I wrote:

> *'Bridging all the complexities and tensions, presenting a consistent front when some colleagues are scathing behind my back ('jerks'!)'*
> (FG, December 2019)

Whilst trying to unpick my colleagues' agendas and vested interests in the project, I endeavoured to approach my own reactions with critical reflexivity, in the spirit of self-study being self-focused and improvement aimed (LaBoskey, 2004):

> *'The mapping project has prompted me to consider my own reactions to 'obstructive' colleagues. What are their agendas, and why? Why do I react to them in the way that I do?'* (FG, November 2018)

Using colleagues as 'critical friends' has been revealing. My mentor (JD) situates me in the 'lovable star' category. Lovable stars tend to be approachable, rarely declining work and easily becoming overburdened and even burned out. Similar descriptions have been used by other colleagues and patients when anonymously completing my mandatory NHS 360-degree feedback for appraisal and GMC revalidation, including *'perfectionist', 'hard-working'* and *'has high expectations of others'*: these are a mixed blessing! I would admit that tempering the expectations of both myself and some

colleagues throughout the CM project and beyond, into the post-mapping critical analysis, has been delicate. At times, I have traded optimal content for pragmatism and diplomacy, accepting compromise and sacrificing perfect pedagogy for peace.

6.3 Autoethnographic Data about whether I think the CM has reflected the syllabus, and how this is judged

6.3.1 Revealing my positionality, assumptions and biases

There is a paucity in my autoethnographic data which overtly addresses this research question about whether the CM has truly reflected the syllabus. I found this question particularly challenging to address, as I was aware that I did not bring 'fresh' and neutral eyes to this. I acknowledge my biases following almost two years of immersion and reputational investment in the CM and recognise that I would naturally wish to report that the CM has reflected the MBBS syllabus. Therefore, I do not consider my autoethnographic account to be sufficiently impartial around this question. Using the principles of self-study (p.94) as outlined by LaBoskey (2004), I am sceptical that my data on this question is sufficiently 'trustworthy'.

Using reflexive insights around my biases in this project an in questioning my own agendas, I wrote:

> *'Self as puppet (for the system, institution)*
> *Self as bridge or conduit (students, faculty, patients)*

Self as professional
Self as researcher
Self as person
Where is self in this?'
(FG, November 2019)

'Self as puppet' speaks to the feelings of powerlessness that arose at times. I questioned my own agency in the project by positioning myself as *'puppet'.* I felt that my primary role was as an instrument for improving the metrics of student satisfaction, as opposed to being an autonomous pedagogue. This frustration also spoke to my feelings of depicting a complex curriculum in somewhat reductionist terms in order to be able to produce an electronic syllabus within a short time and manpower envelope. *'Self as researcher'* indicates my troubling the concept of 'wearing two hats' in the context of conducting *'insider research'* (Robson, 2002) as discussed earlier and below. I considered my own agenda in writing:

'Institutional versus PERSONAL METRICS.'
(FG, November 2019)

and in a statement capturing a cynical view, which I revisit from Chapter 1:

'Mapping for mapping sake….?' (FG, November 2019)

I contemplated my positionality in this project, and my own exertion of power during the creation of the MBBS CM. Kotter (2012) highlights that personal biases and reputations are key in driving organisational change:

'it is not a coincidence that transformations often start when a new person is placed in a key role, someone who does not have to defend his or her past actions' (p.46)

This resonates with the notion of leaders, particularly women, being appointed to leadership roles during periods of crisis or downturn, when the chance of failure is highest: I pictured myself poised on such a precarious *'glass cliff'* (Ryan & Haslam, 2007; Sabharwal, 2015). I appreciated the parallel drawn by my mentor of being appointed to the curriculum mapping lead role (and shortly afterwards to Associate Head of the MBBS Programme) whilst the country was in a state of flux and uncertainty over Brexit, with the disruption that this political change was bringing to higher education.

Indeed, to add a further layer of complexity, within months of the publication of the MBBS CM, the Covid-19 pandemic has radically disrupted and destabilised medicine and medical education, as well as many other areas of society. The cancellation of routine clinical work and the initial withdrawal of medical students from clinical placements, has meant that undergraduate medical education has needed to be rapidly reimagined, largely remotely. This has introduced enormous changes to the teaching and learning environment for students and teachers. I wrote recently in an email to the CM team:

> *'Suddenly the CM has been catapulted to prominence. We've had to forfeit the usual period of it being able to 'bed in'. With students working remotely now, the CM is one of the most* ***certain*** *things that they have whilst we try and get remote learning sorted. We need to capitalise on this!'* (FG, April 2020)

The legacy of the pandemic is likely to be that the radical changes emerging as I write this, will disrupt medicine, higher education and society in a multitude of ways. Not all of these will be negative: from the turmoil, opportunities are emerging. One tentatively positive outcome is that the CM is being increasingly

relied on as being the UCL MBBS's 'master' remote learning tool, and consequently as the master document for assessment for both learners and teachers. This could help to improve and cement assessment practices, grounding them more reliably in transparency and published content, and thereby improving trust for faculty. The hope is that this could ultimately improve the student experience (and the associated educational metrics).

6.3.2 The complexities of conducting insider research

In this section, I address the second part of this research question; how I, as a key stakeholder, judge whether the CM has reflected the syllabus. Much of my autoethnographic narrative around this 'judgement' acknowledges the challenge of trying to remain objective as an invested 'insider', conducting research within my own institution (and within my own department). Analysing my scratch notes through this time, show me that I was pondering how I viewed the project. I demonstrated a sense of trying hard to bring things back to a neutral, objective stance; I seem to be repeatedly trying to re-centre myself. During this project and the post-project critical analysis, I experienced the real-world tensions of conducting Robson's (2002) 'insider research'. I wrote whilst contemplating my self-positioning in the project, referring back to Timms and Heimans (2018):

> *'Old power versus new power….me as medical professional, me as student'* (FG, November 2018)

I empathised with students:

> *'I can see things through the lens of the students I am catering to as I too am student. I am frustrated by similar things.'* (FG, April 2019)

I also revisited the dichotomy presented by being both a clinician educator and a student, in order to rationalise some of the conflicts I experienced:

> *'Staying neutral, being aware of the perils (professional and personal) that conducting insider research can bring; wearing the 'two hats' with self-awareness and insight.'* (FG, March 2019)

I returned to this again in acknowledging the multiple facets of self in this project, broadening my identities beyond just educator, doctor and student to consider my personal lenses on curriculum mapping:

> *'My own children as university students- a maternal lens adds deeper emotion here. Am I actually subconsciously trying to solve things for my own children as they too struggle with the stresses of undergraduate life?'* (FG, April 2019)

I acknowledged in my autoethnographic writing, that these multiple positions placed me in an unusual and liminal space, being both an established practitioner and a novice doctoral student- *'expert in some things and inexpert in others'* (FG, February 2019). I wrote slightly mockingly of myself:

> *'Do I 'love' the curriculum map and am I too heavily invested in its success to step outside of this and take a truly unbiased view of its value/ impact? Is my own reputation and quest to succeed clouding my view? Will anyone use it? Will it be rubbished, along with my reputation?'* (FG, December 2019)

I clearly felt daunted by what I perceived to be some of the paradoxes and tensions in the CM project:

> *'I feel conflicted…there are so many tensions here…*

Between disciplines (medicine and education)
Between stakeholders (students, faculty, patients, me!)
Between my public and private views on the project
Between epistemologies (positivist and interpretivist-mirrored in the stances of my 2 supervisors)
…I'm trying to bridge the tensions of 'between' and straddle the divides.'
(FG, December 2019)

My multi-faceted persona was borne out in another note, drawing on Schön's (1983) analogy of real-world practice being uncertain and 'swampy':

'Life vs work
Boundaries and tensions
Complexity and uncertainty
Messiness and the 'swampy lowlands"
(FG, June 2019)

A conversation with my primary supervisor (dRS) cemented some of these thoughts about my multiple, and at times conflicted identities and how these could be rationalised in constructively leading this ambitious project:

'Reconciling my multiple identities during and after the EdD (me; doctor, educator, leader, student, mother') (FG, December 2019)

Here, I am alluding to my own agendas for the curriculum mapping project and go on to situate myself:

'Self as provocateur, shifting the conversation, nudging/ budging the paradigms, inviting and opening new territories. Pioneer? Rebel? Disrupter?' (FG, October 2018)

I again questioned my own positionality in this project:

'How does this work influence my own power and progression? Taking difficult decisions to cut academic footprints could make me unpopular.

> *Should I take a more challenging path or stick with the status quo...students are key here. As in clinical practice, how much of myself do I invest/ give away?'* (FG, March 2019)

This sort of reflexive writing encapsulates the methodological approach behind choosing self-study; harnessing its principles of being self-initiated and focused and improvement-aimed (LaBoskey, 2002). As self-study was a methodology which originated in understanding teacher educators' practice, this felt apt in allowing me to understand and improve my own educational practice.

Interestingly, when reflecting on why much of my autoethnographic content is written in a poetic style, I found something I heard a colleague say at a Covid-focused reflective Schwartz Round resonate with me. As a psychologist, she was finding that people often sought creative outlets during the pandemic and other stressful events. Even though many of my 'poetic' scratch notes were penned prior to the pandemic, I have found that creativity in the form of poetry and writing (including of this thesis) have indeed provided a refuge for me during this time (see also reflective statement, p.17).

6.4 Autoethnographic Data about whether I think the CM has captured the *whole* curriculum, including the 'soft skills'

6.4 1.Revisiting my theoretical perspectives on curriculum

I begin this section by revisiting what is meant in this work by the *whole* curriculum. In a subsequent section, I consider whether the 'soft skills' have been captured.

As discussed in earlier chapters, this exercise aimed to map the 'formal curriculum' (namely the MBBS syllabus).To remind the reader, the 'formal curriculum' can be defined as the taught or timetabled course, summarised by UNESCO (United Nations Educational, Scientific and Cultural Organisation) as:

> *'the learning experiences and opportunities that are provided to learners in the context of formal education and serve as a basis for certification processes*.'
> (UNESCO, 2020)

The theoretical perspectives of English (1978,1984) and Harden (1997, 2001) in equating curriculum with syllabus (Chapter 3) have in my view, been satisfied in the UCLMS CM. The English and Harden (ibid) pragmatic approach of 'curriculum as syllabus' also make this question philosophically and pragmatically manageable. In reaching out to subject and medical specialty experts to ask them to populate ILOs, Core Conditions and Core Presentations within their area of expertise, I believe that the 'formal syllabus' (my amalgamation of these two elements into a single term) has been effectively mapped. However, for the reasons of bias discussed above, this judgement needs to be corroborated (or not) by other stakeholder groups who bring different lenses to the issue.

If a more inclusive definition of curriculum had been adopted within the theoretical framework of this research such as that of Kelly (cited on p.64), as being *'all the learning which is planned and guided…whether it is carried on in groups or individually, inside or outside the school'*, then this CM does not pretend to have reflected such a breadth of 'curriculum'. Morrison's definition (2002) of a medical curriculum:

> ‘*A medical school as a whole, and the expression of its curriculum through the interactions, exchanges and learning that take place within and outside of the school, is a complex system.’* (p.28)

is also outside of my theoretical frameworks outlined in Chapters 3 and 4. However, in revisiting what students had told us in the pre-mapping survey and focus group (namely, that they wanted a product that was easy, user-friendly and linkable; see Figure 7), I consider that this has largely been met. In a reminder to myself not to overcomplicate this project and to give it its best chance of being operationalizable, I wrote:

> *‘Less is more, stick to the core!’* (FG, January 2019)

I also wrote:

> *‘Get back to basics and aim to do fewer things, better’* (FG, April 2019)

Other facets of curriculum which contribute to important professional learning, the ‘informal’ and ‘hidden’ curricula (Lempp, 2004), could not be said to have been captured in this CM. As alluded to in earlier chapters, the ‘hidden curriculum’ around the issue of assessment at UCLMS is powerful, with a strong cultural message handed down by generations of students. As outlined, this pivots around the Medical School being untrustworthy regarding assessment and following an agenda of making progression difficult for students as evidenced by largely anonymous feedback data (from NSS, SSCCs, SEQs). In considering Lempp’s (2004) definition of the ‘hidden curriculum’, I am struck by his use of the word *‘survive’*:

> *'the set of influences that function at the level of organisational structure and culture including, for example, implicit rules to survive the institution such as customs, rituals, and taken for granted aspects'* (p.770)

This implies that medical school is akin to an assault course where one can fall over purposefully placed hurdles. I also believe the ritualistic aspects that Lempp (ibid) mentions to be strong in medical education and reference the swearing of the Hippocratic Oath and White Coat Ceremonies (p.71). Indeed, recent UCLMS community conversations, including two dedicated student reflective community Schwartz Rounds about racism in medical school and healthcare precipitated by the Black Lives Matter movement, have shone a light on other powerful elements of the 'hidden curriculum' that are not captured in the CM. These previously hidden elements perhaps also deserve to be exposed and accounted for, not least because of the values and beliefs that are underpinned. So, whilst capturing values, beliefs and professional assumptions which continue to be part of the fabric of medical education, has been beyond the scope of this exercise, recent events such as Covid-19 and BLM could act as *'critical incidents'* (p.46) and potent catalysts for change. Such episodes could provide a springboard to imagine things differently in the future in adding to curriculum maps. I return to this in later chapters.

Therefore, judging from my autoethnographic data and seen through my lens, the *whole* curriculum has not been reflected in this tool, if the *whole* curriculum were to be considered theoretically to consist of the formal, informal and hidden curricula. However, if the *whole* curriculum is as defined within the theoretical framework adopted in this work, i.e. *syllabus*, my autoethnographic data support that this has predominantly been met.

However, I acknowledge that I do not bring the practical perspective of the medical student user; I bring the lens of architect of the CM and senior educational leader. Applying Bassot's analogy of different mirrors (Appendix 3), I consider that my perspective means that I may be looking in the 'fun fair' mirror on this question; distorted by being close to the work and invested in it on many levels. So, whilst I think that I (along with the small CM team) have indeed produced an electronic CM that reflects the curriculum (i.e.syllabus), I accept that I am not unbiased. I cannot fully answer this question alone, I require other mirrors or lenses to be applied. I therefore go on to triangulate the different datasets on this question to try to achieve balance on this question.

6.4.2 Troubling the branding of 'soft skills'

In this themed section, I address the second part of the research question about whether the CM has effectively depicted the non-technical 'soft skills'. At the beginning of the CM project I wrote in my notes of the strategic importance of:

> '*keeping soft skills at the fore'* (FG, October 2018)

In a paper published whilst undertaking this research, I wrote:

> *'As practitioners, we recognise that in reality these 'soft' skills are vital and are paradoxically the 'hard' skills.'* (Gishen, 2020, p.2)

In considering the strong onus on professional skills and attitudes in the national guidance *Outcomes for graduates* (2018), it seemed particularly important to feature the 'soft skills' prominently in the Medical School's electronic syllabus. Whilst acknowledging my position as lead for the MBBS

Professionalism module, and given the GMC's placement of the 'soft skills' at centre-stage of professional guidance for medical students and practising doctors, it seemed difficult to over-represent the importance of these skills in the CM. I was aware however, of the challenges of operationalising this goal in a way that would be meaningful to medical students:

> *'Frustratingly, professionalism and the soft skills are not as prized as hard science by medical students. These aspects are not as easy to examine and so will likely be relegated to the bottom of the pile by students in the 'assessment drives learning' culture.'*
> (FG, November 2018)

I perceived this to be an existential issue: one resulting from students being inculcated (perhaps through the 'hidden curriculum' communicated by near peers) to value the more classical scientific elements of medicine above the harder to quantify (and assess) 'soft' elements. I based this perception on my previous research findings, having explored elements of professionalism including students' views of reflective practice, in prior elements of the EdD (Gishen, 2017a, Gishen, 2018). I drew parallels between students 'becoming' professionals with Schön's description of professional practice as representing the *'swampy lowlands'* (1983):

> *'Medical students transitioning from layperson to doctor-professional through the bumpy terrain of the apprenticeship.'* (FG, April 2019)

I was keen to overtly showcase the professional skills through ILOs in the CM, as I considered the risks (see Chapter 2) of producing a 'hard science'-heavy CM. By weaving in professional skills, I was attempting to avoid producing a purely technical approach to the syllabus, which carries the risk of students

relying heavily on the tick-box elements of a didactic 'menu' and learning strictly within the parameters of those:

> *'One unintended consequence of the focus on pre-specified goals may lead both educators and learners to overlook learning that is occurring as a result of their interactions, but which is not listed as an objective.'*
> (Tyler, 1949, p.85)

I also wished to depict the holistic nature of clinical practice, with clinical work encompassing multiple facets of professional practice:

> *'All areas of practice overlap- one cannot rarely truly compartmentalise in the real world. I want to show students a 'warts and all' depiction of medicine, not a sanitised artificial one.'*
> (FG, April 2019)

I also wrote:

> *'Just like clinicians and their patients, I have a duty of care to students to show medicine in an authentic light. It is not just about numbers and science; it is really about 'art' and I will only begin to show this if I give the soft skills a high profile in the CM.'*
> (FG, March 2019)

My Institution Focused Study (IFS) had shown that elements of the MBBS course which were more challenging to examine by the usual methods of Single Best Answer (SBA) questions and Objective Structured Clinical Examinations (OSCE), included professionalism, reflection, communication and the medical humanities. My previous research had demonstrated that due to their relatively infrequent inclusion in summative examinations, these areas of the formal curriculum tended to be undervalued by UCL medical students, at least until final year when, poised to enter professional practice students began to appreciate their importance. Scholars including Bleakley (2021) argue that

these facets of learning, including the medical humanities, are crucial to a holistic professional education and need to be weighted accordingly. Being in my third decade of clinical practice, I agree with this position and through this exercise, was actively seeking ways to meaningfully incorporate the 'soft skills' into the CM.

As alluded to previously, I grappled with what constituted 'core' learning. Often this was obvious, at other times less so. Areas of academic study that I myself found interesting and had published on, had to be reluctantly omitted in the interests of space in what Bandaranayake (2000) refers to as the 'overloaded' curriculum. I wrote:

> *'Important issues like climate change, sustainability in healthcare, LGBT+ health, decolonising curricula etc.…I want to showcase them but am unsure whether to include them in such a full syllabus.'* (FG, March 2019)

Fundamental to answering this research question is establishing clear definitions and boundaries for which content constitutes 'soft skills'. Whilst I originally thought I had done this in using the definition on p.53 ('*the professional, non-technical skills including communication, leadership and teamwork')*, it has become clear from the literature that different scholars use narrower and broader categorisation of what can constitute these skills. As the Academic Lead for Professionalism in the MBBS, I recognise that I have a personal and pedagogical stake in mapping this aspect of the curriculum. Again, it is therefore important to triangulate my own data with that of other stakeholders, which I go on to do in later chapters. However, it would have

been ideal to have an additional group of participants, such as other members of Faculty to research a further view.

6.5 Summary of autoethnographic data themes

Research Question	Method	Themes
What do I perceive the CM project's purpose and drivers to be?	Autoethnographic data	• An exercise in meeting the metrics • Finding compromise in leading educational change
Do I think the UCLMS CM has reflected the syllabus, and how do I judge this?	Autoethnographic data	• Considering my positionality, assumptions and biases • The complexities of conducting insider research
Do I think the CM captures the *whole* curriculum, including professionalism and other 'soft' skills?	Autoethnographic data	• Revisiting my theoretical perspective on *curriculum* • Troubling the branding of 'soft skills'

Table 3: Summary of autoethnographic data themes

Chapter 7 :Findings Part II: Primary Student Survey

> *'The most immediate and obvious result is that you can use the survey information in the responses to offer new insights.'* (Glick, 2012, p.19)

7.1 Introduction

As discussed in Chapter 5, this survey was not intended to be a statistically robust quantitative tool: instead it was imagined in order to provide a sampling frame and act as a 'barometer' in summarising student opinion across a sample of the UCLMS population (approximately 2000 students). The survey results have been used to generate descriptive statistics which provide measures of central tendency and common patterns in the data, in what Gottlieb (2012) refers to as a *'user-friendly summary of data'*. I have not used measures of variance or spread, such as standard deviation, but the descriptive statistics used here help to meaningfully characterise the data. Confidence intervals and other measures of 'significance' are excluded. The survey data do not allow deep conclusions to be drawn, for example as with more in depth inferential statistics; they simply provide ways of organising data into general patterns (similar to basic codes and themes in thematic analysis). I use these descriptive statistics to repurpose quantitative insights across this large data set (n=232) into bite-sized descriptions. Measures of central tendency focus on the average or middle values of data sets. I use graphs, tables and charts to present these data, which subsequently informed the questions for the focus groups.

Initially I present the general survey background questions to provide context to the analysis. I remind readers here that until September 2020, final (6th) year UCLMS students did not have a dedicated CM page, as we had taken the decision not to risk destabilising their learning prior to their high-stakes examinations to qualify as doctors. During the academic session 2019/20 session, which was when they were surveyed, we allowed them to continue using existing study guides until we could gauge the 'success' and reception to the new electronic syllabus, already rolled out to other years of the MBBS. However, during this time they had full access to other years' CM content, including Clinical and Professional Practice 'soft skills' content, basic science content, and *Outcomes for graduates* (2018). A dedicated Year 6 CM page is launching on 1st September 2020, and has been piloted on recent UCLMS graduates. At this point, the electronic study guide will be withdrawn. However, despite not having had dedicated year content at the time of this survey, Year 6 students contributed 9% of the total responses to this survey (see Figure 14).

Similarly, Year 3 (integrated Bachelor of Science, iBSc) did not have (and continue not to have) a dedicated page as they are technically outside of the MBBS programme during this year of study, learning in various UCL faculties. They too had access to the CM when these data were collected. Year 3 constituted 6% of total respondents (Figure 14). I consider some of the implications of the contribution of these year groups in the discussion. The primary survey was distributed to all UCLMS students electronically via an email link. The student survey questions are shown in Appendix 7.

7.1.1 Analysis of Quantitative Survey Data

In analysing these findings, data from the quantitative component i.e. Likert responses (scale of 1-4), are presented. The point scale of 1-4 was chosen to discourage ‘fence-sitting’ i.e. responding with an average, ‘middle of the road’ score. The same scale was used in the pre-mapping survey, so this was chosen to allow some comparisons to be drawn. Percentages have been rounded up or down to the nearest whole number. Item non-response is small in the survey with almost all students completing all questions.

7.1.2 Analysis of Qualitative Survey Data

These data arise from the free text responses (n=120) from the survey (question 11, Appendix 7). 232 students completed the survey in total: 100% of respondents contributed Likert (quantitative) responses whilst 52% (120/232) contributed both free text (qualitative) and Likert responses. These free text data have been thematically analysed and grouped into codes and themes, as other qualitative data in this research have been.

I analyse and report the quantitative and qualitative data together in this chapter and group the data under sections addressing each research question. This survey was anonymous and so the academic year or students’ initials for respondents are unavailable. In addition, I did not ask gender of respondents. Subsequent to obtaining UCL ethics approvals, I now acknowledge that there may be gender skews in responding to surveys (Green, 1996), and regret not

having included this as one of my mandatory fields as I would like to have been able to understand whether this could have influenced the interpretation of the data. Gender is, however, noted in subsequent focus group data (Chapter 8).

7.2 Generic Quantitative Questions as Background Data

What year of the MBBS Programme are you in?

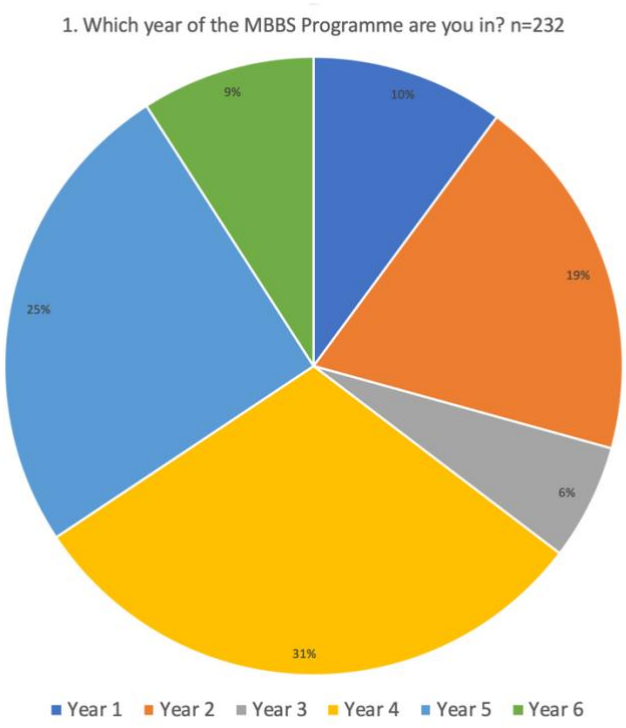

Figure 14: Respondents per MBBS year

66% of respondents to the survey came from the later (or 'clinical') years (4-6) of the course. Unsurprisingly, for the reasons set out above, Years 3 and 6 were the lowest responding cohorts of students.

How useful do you find the Curriculum Map?

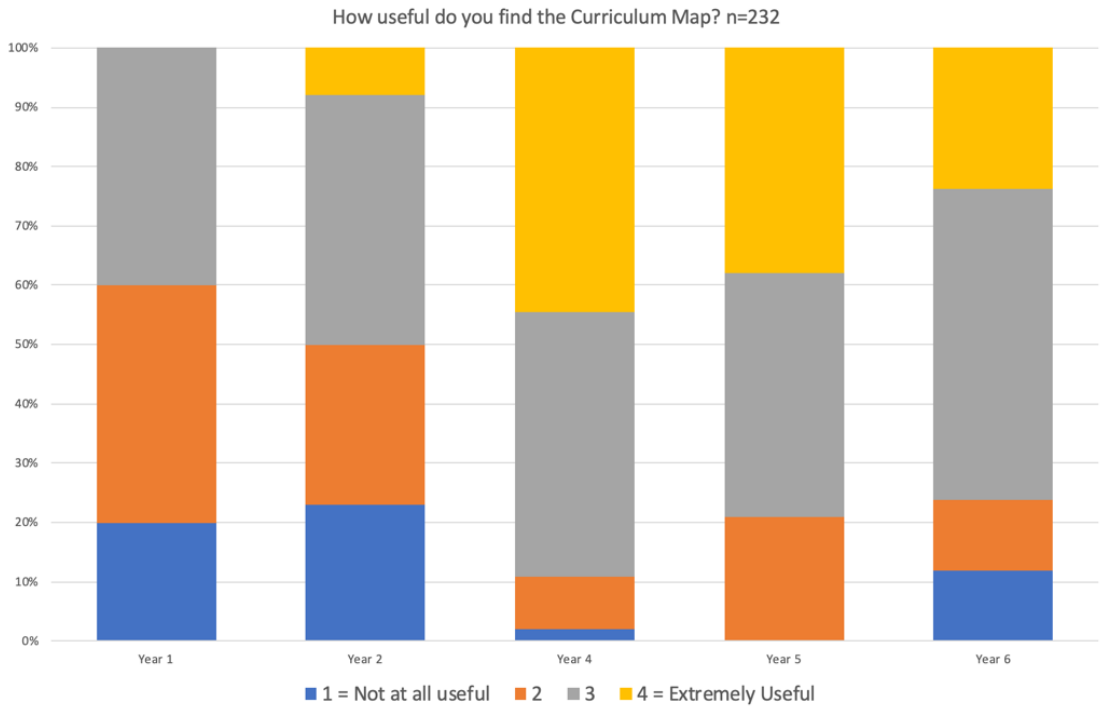

Figure 15: Usefulness of CM

Figure 15 demonstrates that across all years of the programme, the majority of students found the CM *'useful'* or *'extremely useful'*: 66% scored this question as point 3 or 4. Breaking this figure down to year groups reveals that of the 8% who found it '*not at all useful'* (1 on the Likert scale), the majority (65%) came from the early years ('pre-clinical'; Years 1-3). These data suggest that students in the later years find the CM to be of most value to their learning. These are the years based in general practice and clinical specialities in hospitals. As Years 1 and 2 are 'pre-clinical' with limited patient contact, there are very few Core Conditions (CCs) and Core Presentations (CPs) included. Looking at the data from another survey question (see p.171), it is a combination of ILOs, CCs and CPs that students find most useful, therefore it is unsurprising that a full

complement of ILOs, CCs and CPs would be deemed most useful. This could change as the CM becomes embedded and its use forms standard practice. Future considerations are discussed in Chapter 10.

How satisfied are you with the Curriculum Map?

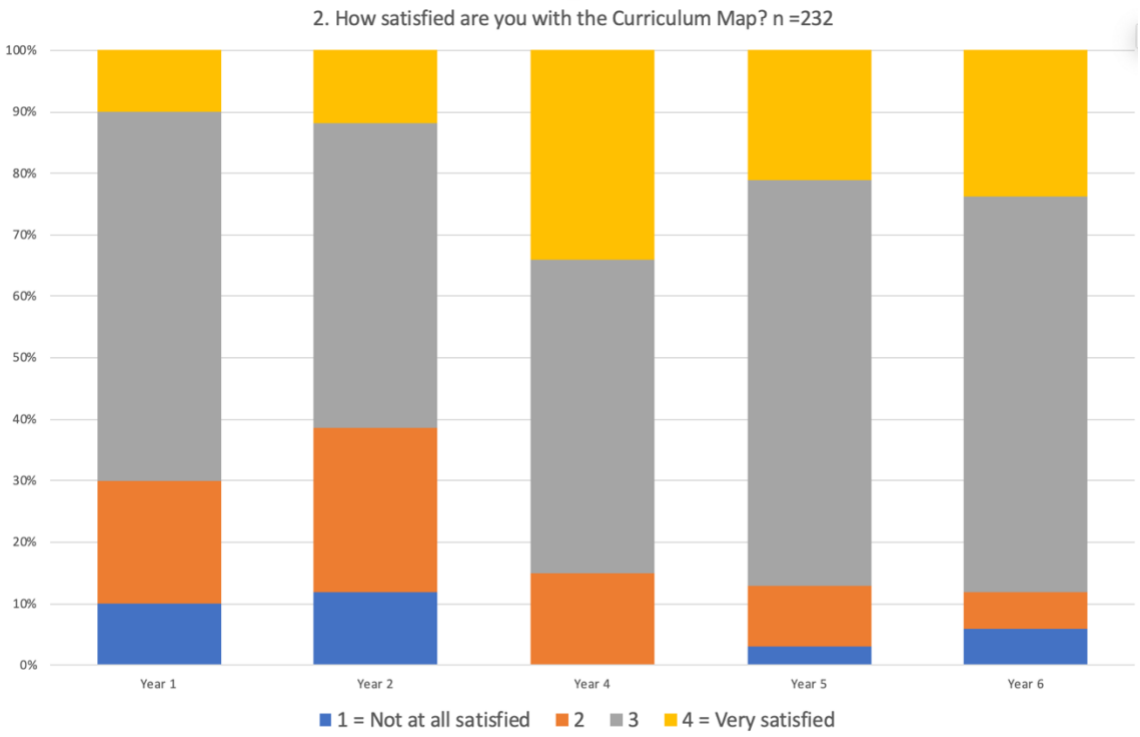

Figure 16: Satisfaction with CM

3% of respondents across all MBBS years were *'not at all satisfied'* (point 1 on the Likert scale) with the CM. A further 23% were *'not satisfied'* (point 2) and as with the previous question, most of these students were in the early years. The most common response was point 3 *'satisfied'* with 57% of all respondents submitting this Likert score. A further 17% of students who answered said they were *'very satisfied'* (point 4), giving overall satisfaction of 74% of student respondents. Year 4 were the most satisfied year: this is the year that students

(including tens of my personal tutees over the years) anecdotally report finding most challenging, with new learning paradigms and a huge volume of clinical knowledge to digest. I acknowledge that this is cross-sectional, as opposed to longitudinal data, but there is a clear pattern between the early versus later years in terms of use and satisfaction with the CM.

How do you find the appearance and structure of the Curriculum Map?

In response to this question, only 2/232 respondents found the appearance and structure of the CM to be *'very bad'* (point 1 on Likert scale). 86% of all respondents found the appearance and structure to be *'good'* or *'very good'* . This may reflect the 'due diligence' exercise of having conducted pre-mapping surveys and focus groups and the involvement in design of a dedicated and skilled learning technologist with previous curriculum mapping experience at another UK medical school. The respondents found the CM relatively intuitive to use, with 86% of respondents reporting a measure of 3 or 4 on the Likert scale (*'easy'* or *'very easy'*). Perhaps again this is as a result of pre-mapping consultation with students where they said that they wanted the CM to be clear, simple and linkable between different years of the course (Figure 7).

7.3 Survey Data on what students perceive the CM's purpose and drivers to be

7.3.1 Quantitative Data

This question was not specifically asked in the survey so there are no quantitative data available to address this.

7.3.2 Qualitative Data

7.3.2.1 Wanting more detail: 'a UCLMS textbook'

The free text comments suggest that UCLMS students perceive the purpose of the CM project as being to provide a comprehensive and bespoke 'UCLMS textbook', chiefly for the purposes of assessment. They ideally wanted significant detail, including stratification of Core Conditions and Core Presentations to focus their learning and revision. In short, they had hoped for more than an electronic syllabus.

Students commented that the CM lacked detail and was more of an outline than the detailed textbook they had hoped for:

> *'Most of the conditions/topics are very broad; it would be good if there was a bit more specific guidance about what to cover and the level of detail to go into when learning.'*

> *'I really like the concept; it is easy to use and understand. However, it does not give an idea as to how big each topic is, and how important they are.'*

> *'A lot of the core conditions and presentations are there, but I was expecting more guidance on what to learn. I don't expect to be spoon-fed all the information but unofficial summaries on what should be learnt would be helpful.'*

Other free text comments echoed these sentiments:

> *'Put more detail'*
>
> *'Conditions-wise, I don't think it's comprehensive enough.'*
>
> *'ILOs can sometimes be quite general and vague – more specific pointers might be beneficial while revising for exams/learning key concepts.'*

Again, in this last quote, this student has associated the CM as being a tool predominantly for assessment in the 'assessment drives learning' climate in medical education, alluded to previously. Although as the CM's architect, I have consciously avoided going down the 'over-prescriptive' avenue of including copious detail, thereby inviting students to think around the material, I acknowledge the participants' view that this is how many would encounter the CM.

7.3.2.2 Utilising modern learning technologies

Usability and functionality featured highly in students' free text comments. Considering what I wrote about technology being intuitive to Gen-Zennial learners in Chapter 2, this is not a surprising finding:

> *'I find it really easy to navigate.'*
>
> *'It is already quite intuitive to use.'*
>
> *'Make it more easily accessible on iPads e.g. as a separate home screen app on its own.'*

Again, this is likely to reflect the co-design of the CM with a learning technology expert who had prior experience. This may also reflect Gen-Zennial learners'

ease and fluency at adapting to new technologies, almost as second nature (Seemiller & Grace, 2017).

7.4 Survey Data on whether students think the CM has reflected the syllabus, and how this is judged

7.4.1 Quantitative survey data

Addressing the research question about how students judge whether the syllabus has been reflected in the CM, can be indirectly answered through surrogate questions about whether the CM corresponds to what they are learning in practice, what students use the CM for, and how often they use it.

Does the content of the Curriculum Map match what you are learning?

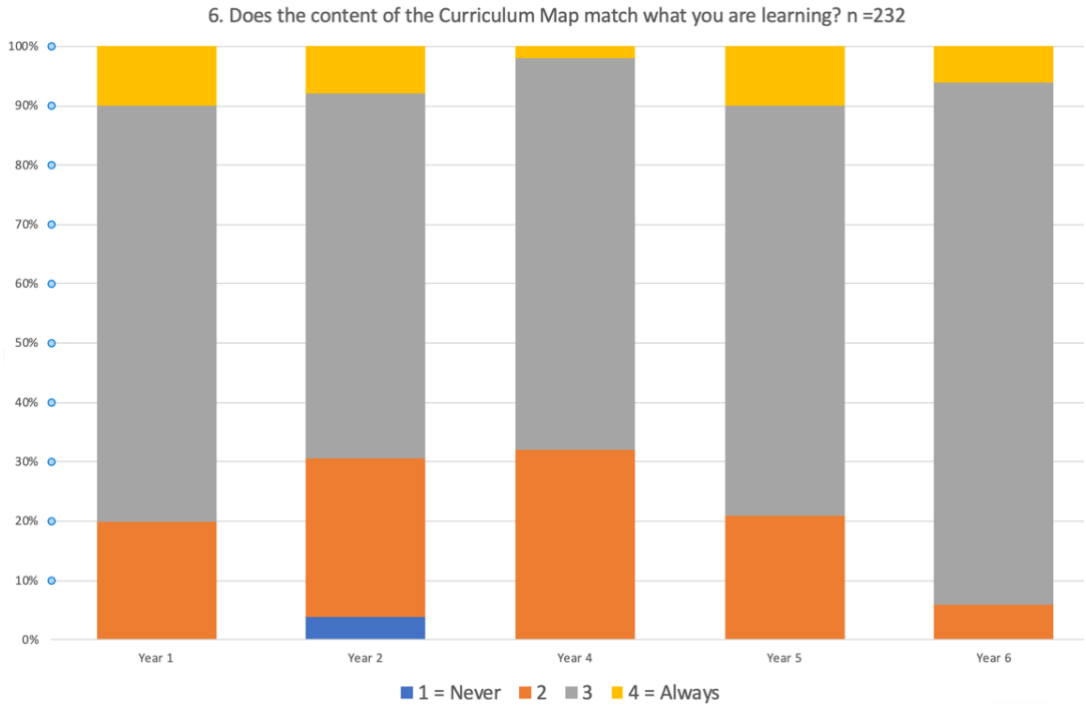

Figure 17: CM content matched to learning

Overall, 68% of the total number of respondents considered the CM *'usually'* (point 3 on Likert scale) or *'always'* (point 4 on Likert scale) matched their real-world learning, with higher concordance reported by students in the later years of the programme. The mode (most common response) was point 3. It is gratifying that most students who responded to the survey found that the CM matched their learning and was accurate, although this may reflect a sample selection bias, in that those who like the CM replied to the survey. In Year 6, there is a strong correlation, but this is a select group who have chosen to use the tool, so may be more likely to think it is a good resource than general Year 6 students. Year 3 were not included in this question as they are undertaking iBSc degrees outside of the MBBS programme.

What do you use the Curriculum Map for?

These data are complicated to interpret as no Core Presentations (CPs), and only a small number of Core Conditions (CCs) are available in Years 1 and 2, for the reasons explained above. Therefore, the low numbers of students in these years using the CCs are likely to be using the links to other years to look forward to clinical conditions covered in later years of the course. In the pre-mapping focus groups, preclinical students said that they found clinical content *'exciting'* and this made them feel like *'real'* medical students, so I am unsurprised that they favour this facility. Year 3 data are similar, as ILOs, CCs and CPs are not relevant to their specific year of study. In the graph below, I distil out the data for the highest users of the CM (Years 4 and 5) who have access in their years to all categories (ILO/ CC/ CP).

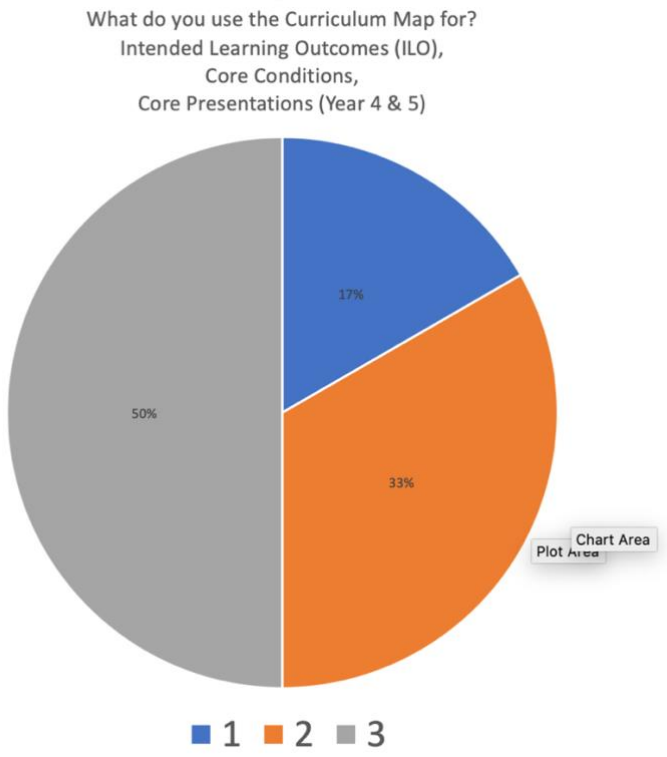

Figure 18: Use of ILOs, Core Conditions, Core Presentations

Figure 18 shows that students in Years 4 and 5 of the MBBS generally used the ILOs, CCs and CPs in conjunction, with 50% using all 3 options, and the minority (17%) saying they only used one of these options. In total, there were 393 responses from 232 students (*'tick all that apply'*); in retrospect, I am unsure that I phrased this question clearly enough, as focus group data (Chapter 8) and subsequent conversations reveal that for students who use the CM for their learning, most use all the available functions.

How often do you use the Curriculum Map? (Year 3 excluded as outside of the MBBS Programme)

	Year 1	Year 2	Year 4	Year 5	Year 6	Total	% of total
Daily	2	4	2	5	2	15	7
Weekly	15	25	43	37	19	139	64
Monthly	7	14	24	14	1	60	28
Never	0	1	1	1	0	3	<1
Total	24	44	70	57	22	217	100

Table 4: Frequency of CM use

For the reason that they are studying outside of the MBBS, Year 3 data are again excluded here. Overall 99% of students answering the survey from the remaining 5 years of the programme said they used the CM daily, weekly or monthly. For all years, modal use was weekly. Of the 214 respondents who said they used it daily, weekly or monthly, 69% of this cohort were drawn from later years (4-6) again reinforcing that this tool has thus far, been more widely adopted by 'clinical' medical students versus 'preclinical' students.

7.4.2 Qualitative Survey Data

7.4.2.1 Trustworthiness for Assessment

A linked theme emerging from the qualitative free text survey data alongside wanting a *'UCLMS textbook'*, was around whether the CM was a trustworthy tool for assessment. There was scepticism about this, as the CM had been acknowledged by the CM team (see p.59) and by student users as not being an exhaustive source for medicine. There was additional (justified) scepticism that faculty may not consult the CM when writing assessment questions, again hinging around trustworthiness:

> *'I worry that the curriculum map will not be used by those setting examination questions, therefore information not on the map could come up. The Medical School has not given a guarantee that this won't happen, therefore I think the map is of limited use.'*

> *'The curriculum map could be extremely helpful but at the moment it is not really. This is because as it is now, it does not provide clear and exhaustive account of the examinable content.'*

This has indeed been a concern of mine too, which I have seen be played out in the first cycle of assessments that have run in 2019/20 following the introduction of the CM. It reinforces the need to the CM to be routinely added to all key committee agendas and championed, so that faculty can be inculcated into using it. Until clinical teachers, most of whom are NHS as opposed to UCL employees, commit to using the CM and tell students that they are doing this, the students remain nervous to rely on it, deferring to other trusted sources:

'Communicate with doctors that are teaching us. A lot are unaware of it.'

'Refer to it often in modules etc otherwise we forget about its existence.'

'Medical students are often told by doctors that the curriculum map is not exhaustive, which defeats the purpose of having curriculum map in the first place. In summary, I expect many more points on the map, which should be specific and cited in teaching sessions.'

The students also wanted content stratified by assessment 'importance' i.e. likelihood of featuring in examinations:

'Have an order that indicates how important each topic is [for assessment].'

'Maybe having more discriminations between priorities with the objectives to match what is more likely to be examinable (higher ranked priority of the conditions that you think are essential for us to know).'

This is an unrealistic goal; many would say it would be unethical for faculty to 'teach to the test' and direct students specifically to what to learn for assessment as this would breach academic integrity and professionalism. These discussions have been had many times by our faculty: we have concluded that medical student demands around assessment are almost insatiable and can never be fully satisfied. Students have told us through SEQs and SSCCs and the real-time feedback platform (Unitu), that they would like an almost infinite number of formative questions in order to rehearse for their exams. On reflection, in framing the purpose of the CM, perhaps we should have been more explicit that it was not going to fulfil this requirement.

These themes and points link back to the 'hidden curriculum' discussed in previous chapters. They are reminiscent of Lempp's (2004) use of the word *'survive'* discussed on p.153 as a way of 'gaming' the obstacle-ridden and

dangerous terrain of medical school. It feels like there is a pervasive culture of 'us and them' that exists between staff and students, and that this is deeply entrenched in the 'hidden curriculum'. I do not think, even through rigorous attempts at transparency, that this can be undone and that this mistrust only begins to dissipate once students have graduated and left UCLMS. However, it is useful to remind oneself that this is mistrust of the institution and the power that it represents as opposed to mistrust of individuals.

7.5 Survey Data on whether students consider the CM to have captured the *whole* curriculum including the 'soft skills'

7.5.1 Quantitative data

Again, linked to the data presented above, students reveal that they are less focused on the 'soft skills', which I have previously posited as being deemed more 'common sense' and less worthy of revision time than other curricular elements. Students reinforce below, that they see the CM as a tool for revision rather one to broaden their general knowledge basis and professionalism attributes.

Do you use the Curriculum Map for learning about professional attitudes and behaviours? (Year 3 excluded as outside of the MBBS Programme)

	Year 1	Year 2	Year 4	Year 5	Year 6	Total	% of total
Yes	1	4	2	5	1	13	6
No	19	32	59	48	18	176	80
Don't know	4	8	11	4	4	31	14
Total	24	44	72	23	23	220	100

Table 5: Raw data from survey about whether the CM is used for learning about professional attitudes and behaviours

This is a categoric response; 80% of student respondents across all years of the programme said that they did not use the CM to learn about professional attitudes and behaviours. Most of those remaining chose *'don't know'*, with only six of student respondents saying that they used the CM for learning about the 'soft skills'. The 'soft', non-technical skills appear to be perceived as less important and simply a means to an end (getting through exams). Although as a medical student, I was not governed by the GMC and did not have a professional blueprint (OfG, 2018), I also remember being inculcated with this message by senior students, perhaps in retrospect as part of a 'hidden curriculum'.

7.5.2 Qualitative Data

7.5.2.1 Hidden agendas, hidden curriculum

That the students are fearful of being tricked or tripped up by the Medical School, principally around assessment, as discussed in Chapter 6 is again in evidence here:

‘The core conditions are really good, but I feel some are missing. Likewise, I feel not all the emergencies that we’re taught/ are examinable are on there.’

‘One thing that makes me worry is whether conditions not listed in there need to be known… this makes me nervous to use the curriculum map as a guide for revision in case it is not thorough/complete enough. Hence why only use it monthly– otherwise I would use it all the time! It’s fantastic, thanks!!’

‘It would be brilliant… If it were exhaustive list of what we need to know to for summative exams… Despite that, I still find it extremely useful and I’m grateful it exists. Thanks!’

7.6 Summary of primary student survey themes

Research Question	Method	Themes
What do students perceive the CM project's purpose and drivers to be?	Student survey	• CM as a learning aid for assessments • Utilising modern learning technologies
In what ways do students think the CM reflects the syllabus, and how do they judge this?	Student survey	• Scepticism around trustworthiness for assessments • Not enough detail: *'not a UCLMS textbook'*
How effectively do students think the CM captures the *whole* curriculum, including the 'soft' skills?	Student survey	• Not generally used for 'soft skills' • Hidden agendas, hidden curriculum

Table 6: Summary of primary student survey themes

Chapter 8: Findings Part III: Student Focus Groups

> *'[Focus groups] drive research through openness, which is about receiving multiple perspectives about the meaning of truth in situations where the observer cannot be separated from the phenomenon'* (Fisch & Ness, 2015, p.1410)

8.1 Introduction

Here, the two focus groups (one with early years 1-3, one with later years 4-6) are analysed using reflective thematic analysis (RTA) (Braun & Clarke, 2014) and presented in themes according to each of the three research questions. Again, as in previous findings chapters, themes are presented as italicised headings.

Each quotation is taken from a focus group (FG) participant. Participants have been assigned as 'F' or 'M' (female or male), followed by the number which was given to each participant at the start of the FG, and whether they came from the early years focus group ('FG 1-3') or later years focus group ('FG 4-6'). For example, using this scheme, a quote could be attributed to 'F4, FG 1-3'. This was done in order to be able to detect any particular themes emerging from FG 1-3 versus 4-6, or whether females or males tended to discuss certain codes or themes more. In synthesising the focus groups, it becomes apparent that there are differences in some of the content and focus expressed by early years as compared to later years students; they are far from a homogeneous group and can be stratified somewhat according to their 'seniority' or experience. However,

trends based on gender of students were not apparent from this analysis. The focus group transcripts are available for reference on request.

8.2 Focus Group Data on what students perceive the CM's purpose and drivers to be

8.2.1 The CM as a tool for assessment

The early years focus group data demonstrate that the more 'junior' medical students (early years) favour a more prescriptive approach to learning and assessment. Several of the students in FG 1-3 suggested that the CM could resemble the familiar A-level 'specification' which they have been used to working to prior to coming to medical school:

> *'I think a lot of what people, at least me personally, are looking for in these objectives [ILOs] are like, the science, the nitty gritty stuff, like, for example when you're on 'A' levels you had specifications.'* (M2, FG 1-3)
>
> *'We have used the ['A' Level] specifications for years now… it's a very comfortable way of revising and having clear goals and clear outcomes and clear things that you can check off, so I think if [the CM] was going to be something that was a really useful revision resource or something to track our progress, it would have to have the format of a specification, because it's just tried and tested and it has worked*.' (F3, FG 1-3)
>
> *'I think what everyone has been saying…about 'A' level specifications, is really important because I think that was our expectation of what the curriculum map would be.'* (F3, FG 1-3)

This resonates with findings in my autoethnographic data and student survey in the preceding two chapters. In the early years of the MBBS programme, both the students and the learning culture could be viewed as transitioning between

the more didactic school programme (with specification) into the domain of *'complexity science'* (the study of the dynamics, conditions and consequences of interaction) of clinical medicine, encountered in the later years, as cited by Mennin (2010):

> *'Complexity science is particularly relevant as medical education braces and movement towards more authentic curricula, integration, interactive small-group learning, and sustained clinical and community experiences'* (p.20)

The students in the later years' focus group did not mention 'A' level specifications as being their ideal template for learning. They seemed to have moved beyond this model and were more accepting that a medical degree, and medicine itself, were challenging to capture in a specification, and required extensive supplementation with additional reading and clinical experience:

> *'…it has kind of been repeated by a few members of staff this is not an exhaustive list… but it's there to kind of prompt you to think 'okay, I need to think about this kind of topic and the conditions that may fall underneath this', and then it goes into you kind of being on the wards and seeing what are the common things'* (F3, FG 4-5)

This quote speaks to a more independent and holistic approach to learning; of taking responsibility for one's learning. Counter to the free text quotes in the previous chapter around wanting an exhaustive and stratified 'menu' in the CM, the FG participants commented on the converse value of not having too much detail in the CM:

> *'I think it's like, almost more useful than having the kind of be-all-and-end-all definitive list, because they kind of can trip you up in exams, so whereas we are always kind of told that this isn't everything you need to know about Medicine, it's just a kind of 'starter for 10' that you can use going forward.'* (F5, FG 4-5).

Participant F5 qualifies this comment with further explanation about needing to be more independent and autonomous in learning, without the potential perils of relying on lists:

> *'When you are given some like sort of exhaustive list sometimes, you kind of just use that as your main kind of focus and don't really have a read around the subject and stuff, so I think this kind of just gives you the like, seed and then you can then go and kind of like go off on that what you need to kind of learn from it almost, so it's quite useful to kind of plant the seed there.'* (F5, FG 4-5)

This speaks to Tyler's (1949) concerns:

> *'One unintended consequence of the focus on pre-specified goals may lead both educators and learners to overlook learning that is occurring as a result of their interactions, but which is not listed as an objective.'* (Tyler, p.85)

Another senior student followed this train of thought, moving away from the 'tick box' notion of learning from lists:

> *'I think, you know, it's like you continuously learn and so I think it's really important that people know that it isn't an exhaustive list and people aren't discouraged from learning about other things that they see on the wards just because it's not on the curriculum map.'* (F1, FG 4-5)

> *'…it's not really a rigid way of looking at medicine, which is really nice'* (F1, FG 4-5)

The FG data give a different student perspective to the survey data, perhaps because the open questions and group environment allow for a richer conversation. In addition, my presence at focus groups may have biased the dialogue towards more positive comments (although students still felt able to be critical of the CM).

However, like their junior peers, these students also admitted to finding some reassurance in being able to chart their progress by 'ticking' learning off:

> *'I think it's particularly useful having the tick box as well, so then you have a way of tracking your own progress as you progress through each module and each rotation, so I think that's a really good aspect of the map and it's something that I've been using.'* (F1, FG 4-5)

This hints at 'learning' being perceived as a noun rather than a verb. So, it is not viewed here as an 'on-going' process but rather something to be accomplished and achieved as an end in itself.

8.2.2 A tool for fairness and 'levelling the playing field'

As mentioned in Chapter 2, fairness and social justice are topics often raised by Gen-Zennials. This was borne out in my IFS data (Gishen, 2018b) where a small sample of UCLMS medical students said that discussions around fairness and social justice were enabled by reflective practice opportunities.

In the later years FG, a student linked the content of the CM to the need for clarity and transparency:

> *'…because one person might interpret [something] differently to someone else, just so that everyone knows what is meant'* (F2, FG 4-5)

This quest for clarity has been particularly evident during the Covid-19 pandemic, with students learning remotely and seeking additional reassurance around assessment, as evidenced by their frequent and compelling posts on

the student real-time feedback platform, Unitu. One participant said that she felt that the CM made things fairer:

> *'I feel like it [the curriculum map] really levels the playing field for a lot of medical students'* (F4, FG 4-5)

> *'…because I feel like…most of us do have friends in the years above and we can ask for advice…but I feel it…just levels the playing field and everyone has got a curriculum that they can refer to and no one feels, like, disadvantaged*.' (F4, FG 4-5)

Participants in both focus groups expressed that the CM provided consistency and helped to reduce the perceived unfairness of certain students having an advantage over others, often through privileged knowledge handed down by peers in various societies (knowledge that is not necessarily written down, but is imparted through the 'hidden curriculum').

What emerged from the focus groups was further evidence (see excerpt from an alum's letter, p.35) of the pressure and competition that many medical students feel and the profound sequelae of this, which resonate with the concept of '*moral injury'* (Murray, 2018). It also speaks to the perfectionist nature of many medical students and doctors that I wrote about in my autoethnographic findings (Chapter 6). I wrote somewhat prophetically in a recent pre-Covid paper:

> *'As new paradigms emerge medicine will change in unimaginable ways, whereas human emotions will not: suffering and loss will feel just as poignant, and perfectionist doctors will continue to overwork and risk burning out'* (Gishen, 2020, p.2)

I think that the levels of competition and perfectionism have become heightened since I attended medical school. Thinking back and considering the *'level*

playing field' and fairness, I believe I would personally have appreciated having a CM whilst a medical student.

8.3 Focus group data on whether students think the CM has reflected the syllabus, and how this is judged

8.3.1 Not enough detail, therefore hard to trust

Similar to findings from the free text of the students survey (Chapter 7), students participating in the focus groups generally expressed discontent with what they perceived to be a lack of detail and clarity in the CM. This appears to undermine their trust in the CM. Senior peers' advice and knowledge as well as textbooks were considered more trustworthy than the CM alone. This again echoes Lempp's (2004) messages about the potency of the 'hidden curriculum'- here the wisdom of near-peers and lack of trust in faculty.

Students reported often finding the ILOs too vague and therefore unhelpful:

> *'…intended learning outcomes, which are very vague…I haven't found the ILOs very useful.'* (F4, FG 4-5)

> *'I've found the intended learning outcomes to not really be very useful mostly.'* (M3, FG 4-5)

However, they generally liked the linkage function between different parts of the course such as the 'vertical' elements (CPP) and *Outcomes for graduates* (2018). Whilst understanding the principles of spiral learning throughout the course (see Figure 3), several students said that they concentrated only on their

specific year of study. However, they appreciated the option to be able to view future and past content:

> *'I feel like sometimes this degree…it's quite long, so it's nice to kind of just have something to be like, this is what my end outcome is, and this is why I'm doing everything. I'm doing a 9 to 5 every day and then going to the library and working, so it's nice to just have that to remind you of why we're doing everything I guess, for a bit of motivation.'* (FG, FG 4-5)

> *'The way it relates back to pre-clinical years I imagine would be useful for 'pre-clinicals', knowing this isn't a complete waste of time learning this; 'I know it's going to come up in Module A again in the fourth year', rather than just an aimless lecture, which can be a sense that people have in pre-clinical year.'* (M4, FG 4-5)

> *'I do like how the learning outcomes…link with other parts of the course.'* (F3, FG 1-3)

> *'I think it's really useful for, being in fifth year to have a quick look back over the fourth-year core conditions, especially for exams and kind of seeing like where maybe I've got certain gaps in my knowledge.'* (F1, FG 4-5)

The focus group data from the later years reveal a general sentiment of greater contentment with the CM compared to the early years. Many of the students acknowledged that they have been asking for a resource like this for many years and that it has exceeded their expectations, which is very gratifying for me as architect:

> *'It exceeded my expectations, just because we have been asking for something like this for such a long time and like everyone said, it's very easy to navigate and like the list of core conditions has been useful.'* (F2, FG 4-5)

> *'I find it really useful and so really easy and I'm really impressed with it.'* (M4, FG 4-5)

Generally, in the later years, there was recognition of medicine being a profession with an almost infinite number and combination of clinical possibilities and that it was unrealistic to expect a fully comprehensive, exhaustive CM. One student in the later years described the CM as providing *'a seed'* to spark learning:

> *'[The CM] gives you the like, seed and then you can then…go off on what you need to kind of learn from it almost, so it's quite useful to kind of, plant the seed there'* (F5, FG 4-5)

Another compared it favourably with a 'map' at another institution:

> *'Having had friends who have got some similar resources in other universities, I think it's like, almost more useful than having the kind of be-all-and-end-all definitive list, because that kind of can trip you up in exams. So, whereas like we are always kind of told that this isn't everything you need to know about Medicine, it's just a kind of 'starter for ten'.* (F5, FG 4-5)

However, another student expressed a different view;

> *'I think I got this wrong, but I thought it was going to be an exhaustive list, so it was slightly disappointing for me to know that it wasn't.'* (M1, FG 4-5)

Several participants said that the CM aligned well with what they were learning (this was also reported in the quantitative data from the student survey, Figure 17). As discussed in Chapter 4, this close alignment relies on my chosen theoretical perspective of *'curriculum as syllabus'* and does not include content that students learn via the informal and hidden curricula.

Students expressed that whilst the CM was a relatively accurate reflection of the MBBS syllabus, its lack of detail in parts, meant that it could not be fully trusted. This view was more pronounced in students in the early years of the MBBS:

> *'I think I would like to use [the CM] more, but right now it's just too vague for it to be usable, to use, because I may as well just go and just look at lectures themselves.'* (F3, FG 1-3)

> *'One thing that puts me off the curriculum map is because a lot of the objectives are so vague.'* (F10 FG, 1-3)

Reassuringly though, some students reported showing it in real time to the ward doctors as a reference to guide their learning:

> *'I have even shown it to doctors when they have said oh, what do you need, what haven't you covered? And I can say oh, I've done these things. I haven't seen these things. Can we talk about the ones we haven't seen? And they find it useful as well.'* (M4 FG 4-5)

This gives me hope that it has potential, even with non-UCL clinician teachers, to become the preferred or master document for teaching and producing assessment questions. If this were one of the ultimate gains from this mapping exercise, this could eventually be reflected in improved metrics around assessment and feedback, including NSS scores, mooted in Chapter 1 as a driver for the commissioning of this tool.

One student expressed that the CM has good potential but was not yet the 'finished article':

> *'the skeleton of the map is good; it has a sound body. It needs fleshing out though.'* (F4, FG 1-3)

Hence, as outlined in Chapter 1, there is a need to keep dynamically upgrading and improving the CM in response to user feedback as well as in developments within medicine.

8.4 Focus group data on whether students think the CM has captured the *whole* curriculum, including the 'soft skills'

8.4.1 Used more for 'nitty gritty science' than 'soft skills'

One early years student summed up the general attitude to learning about professional skills when he said that he used the CM for learning about the '*nitty-gritty science'* rather than the 'soft skills'. Several FG participants echoed this when they concurred that they did not use the CM to help focus on learning about professional aspects of the medical apprenticeship. They hinted at viewing learning outcomes based on professional skills, as being an artificial construct, as these topics are less tangible and amenable to being 'ticked off' a list. They generally voiced that it was more valuable to learn these non-technical elements of medicine 'on-the-job', as discussed below:

> *'[Professionalism] is not something that you can measure like that and you just pick it up on the course, and we're being taught things or like meeting patients or whatever. It's not really something that's like a learning outcome as something that you can just go over there and tick off like that.'* (M1, FG 1-3)

However, some of the students noted that there may be future merit in being able to refer to the 'soft skills' components of the CM:

> *'I think that it might be helpful in the future…It might be helpful to guide what path of ethics or what path of communication you need, so I think it's good that it's there, but maybe we just haven't got to the part on our course where it will be useful yet.'* (F3, FG 1-3)

> *'If we are writing a reflective piece or something, then there are learning outcomes or objectives about reflection that we could then try and achieve in our writing, so it doesn't feel like aimless memories, but more something that is objective and that has a proper purpose.'* (F3, FG 1-3)

This latter quote resonates with the findings of my Institution Focused Study (Gishen, 2018a). In general, students were less concerned with the soft skills, which they felt to be largely common sense. Although not overtly mentioned here, building on the survey data, this is likely to reflect student perception of both the frequency and difficulty of professionalism related questions in assessments. However, students commented that the CM gave them context for their portfolio assignments:

> *'I do think the portfolio tab is quite helpful though, because it shows you that there is a reason for what you are doing, because we do get quite a lot of activities and it's not always clear how they directly relate to like, how we are professionally developing…why what we are doing is important*.' (F9, FG 1-3)

> *'Building on that, it might be helpful on the portfolio tab to have…learning outcomes or objectives about reflection that we could then try and achieve in our writing, so it doesn't feel like aimless memories, but more something that is objective and that has a proper purpose, so it would help guide us more.'* (F3, FG 1-3)

Students said that they appreciated the GMC's *Outcomes for graduates* (2018) function, linking to professionalism. Students were also positive about linking to the Clinical and Professional Practice modules which they felt to be relevant to their future professional practice.

The de-prioritisation of the ‘soft skills’ discussed in the focus groups matches both the quantitative survey data and my autoethnographic data presented in previous chapters. Although anticipated and unsurprising, as MBBS Lead for Professionalism, I find this disappointing.

8.4.2 Learning technology appreciated by tech-savvy learners

Technical functionality was raised (as it was in the student survey in Chapter 7) with participants in general reporting being pleased with the technological aspects of the CM:

> *‘I’m not particularly good with computers…I still find it extremely easy to use and easy to navigate and I do agree that it’s kind of very visually appealing.’* (F1, FG 1-3)

> *‘When you’re looking at the screen, it’s quite nice how clear everything is.’* (FG, FG 4-5)

This corresponds with current learners’ intuitive use of technology, discussed in Chapter 2, and noted in the survey data in Chapter 7. Again, I think this is mainly testament to the talents of the dedicated learning technologist and as a result of the pre-CM mapping data collection.

8.5 Summary of student focus group themes

Research Question	Method	Themes
What do students perceive the CM project's purpose and drivers to be?	Student Focus Group	• A tool for assessment • A tool for fairness and *'levelling the playing field'*
In what ways does the UCLMS CM reflect the syllabus, and how do students judge this?	Student Focus Group	• Not detailed enough, therefore not trustworthy enough
How effectively does the CM capture the *whole* curriculum, including the 'soft' skills?	Student Focus Group	• Learning technology for tech-savvy learners • More useful for *'nitty gritty science than soft skills'*

Table 7: Summary of student focus group themes

8.6 Triangulating Data

In this section, I consider the three findings chapters together holistically to 'make sense of the stories'. I present these in a single table (below) for ease. I

endeavour to find congruence in the argumentation by weaving the datasets together to synthesise five overall themes for this research. In this way, data from different stakeholders- which underpinned the choice of a hybrid methodological approach- can be synthesised and different lenses on curriculum mapping can be appreciated. I use the methodological frameworks of hermeneutic phenomenology and self-study to deeply immerse myself in the data and synthesise the themes. I use the limited quantitative data from the survey to inform and augment the qualitative data.

Drawing on the literature as a critical friend, my supervisors and mentors as guides and ultimately my readers as judges, I present this work in as rigorous and trustworthy way as I can. In the following discussion and conclusion chapters, I consider whether I have answered my research questions and addressed my professional practice problem, the potential impact of this research and future work that could arise as its legacy.

8.7 Summary of themes from three datasets

Research Question	Dataset	Themes
What do stakeholders involved in curriculum mapping perceive the project's purpose and drivers to be?	Autoethnographic data	An exercise in meeting the metrics Finding compromise in leading educational change Considering my positionality, assumptions & biases The complexities of conducting insider research Revisiting my theoretical perspective on *curriculum* Troubling the branding of 'soft skills'
In what ways does the UCLMS curriculum map reflect the syllabus, and how do the stakeholders judge this?	Student Survey	The CM as a learning aid for assessments Utilising modern learning technologies Scepticism around trustworthiness for assessments Not enough detail: *'not a UCLMS textbook'* Not generally used for 'soft skills'
How effectively does the map capture the *whole* curriculum, including the 'soft' skills?	Student Focus Groups	A tool for assessment A tool for fairness and *'levelling the playing field'* Not detailed enough, therefore not trustworthy enough Learning technology for tech-savvy learners More useful for *'hard science than soft skills'*

Table 8: Summary table presenting themes from three datasets

8.8 Finding congruence; synthesising findings into overall themes

Theme
Power in medical education: *metrics drive practice, assessment drives learning*
Troubling trustworthiness, fairness and social justice
The hidden curriculum of *'hard over soft'*
Navigating uncertainty and finding compromise
Building legacy

Table 9: Overall themes of the study

Chapter 9: Discussion

> *'With all of the flexibility of the proposed multi-metaphorical meta-framework, plurality of metaphors does not imply that "anything goes"; neither does it result in a complete methodological freedom or in a reduced need for empirical evidence. To count as trustworthy, the resulting theories must still be experimentally testable and congruent with data'.* (Sfard, 1998, p.12)

9.1 Introduction

In this chapter, I summarise my findings and consider their meaning and whether they have been anticipated or unanticipated, and if any are inconclusive. I reflect on my conceptual frameworks and consider whether my overall research strategy has helped or hindered this work in addressing my research questions and problem of practice. I link back to the theoretical literature and reflect on the relationship of my findings to those already in the field. I reflect on my sampling approach and revisit some of the limitations that were outlined in Chapter 5.

I proceed to consider how this work could influence real world practice and have impact nationally and internationally. I also reflect on the utility of this work on my own professional practice. In the final chapter, I discuss the possible impact of this research, as well as future work that could arise from it. Overall, I reflect on why I have conducted this study and consider its contribution in trying to answer the fundamental question, "So what?".

9.2 Summary of findings

In this post-mapping analysis, stakeholders' views on the CM exercise were synthesised into five overall themes; power in medical education *(metrics drive practice, assessment drives learning)*; troubling trustworthiness, fairness and social justice; the hidden curriculum of *'hard over soft';* navigating uncertainty and finding compromise; and building legacy. In the previous chapter in which results were considered together, both convergence and divergence in data within these themes were noted.

Curriculum mapping is a complex area and this critical analysis is correspondingly complex. In designing a research strategy consisting of a blended methodology and multi-method approach, I have mirrored the multiple stakeholder perspectives and presented different prisms on whether the MBBS CM is fit for purpose, with regard to my research questions. In short, through adopting a bricolage approach (Chapter 4), I have enabled representation of the differing expectations of this tool by different stakeholders as outlined in my Professional Practice Problem, noting both convergence and divergence in the data.

Here I purposefully reiterate what I laid out in Chapter 2 as being my initial perceptions of the multi-faceted reasons for the commissioning of the MBBS CM. The regulator (GMC) wishes to use the CM as a tool to evidence inspection and compliance with *Outcomes for graduates (2018)*. The Institution wishes to use it to improve their public-facing student satisfaction metrics (chiefly the NSS

and UCL Student Experience Survey), which can influence reputation and funding. The Medical School wishes to use it to improve key metrics (albeit not the universal key performance indicator of employability, which is not a metric used in for medical graduates as all are assured of employment). I wish to use it to improve the student experience, as well as personally improving my educational leadership portfolio. Students want it to clarify and improve their assessments and for it to contribute to achievement of higher grades in a climate of competition. My data have largely confirmed and reinforced these perceptions, although I acknowledge that it would have been valuable to obtain additional stakeholder perspectives, for example from faculty and clinical teachers.

9.3 Convergence and divergence of findings

Bricolage methodologies and methods can allow researchers to find commonalities and synthesise these as coherent threads (Chapter 4) but a risk of this approach is not being able to achieve this in a coherent and meaningful way. As I stated in Chapter 5:

> '*the aim is to find cohesion and corroboration in the overall argument, as opposed to corroboration in the data, thus offering sense-making around the research questions.'*

At the start of the CM project, I was unsure whether I would be able to meaningfully reconcile these views:

> *'I'm concerned that agendas of myself and the students are so different, and we are coming from such different perspectives that I won't be able to triangulate the CM data in a way that is meaningful.'* (FG, September 2018)

However, I now realise that whilst there is both convergence and divergence in the datasets, there are some overall uniting themes. Within these themes, there is a divergence of interpretations and expectations by the different stakeholders. Sometimes the agendas conflict, but sometimes they run in parallel and converge. Here, I articulate these differences, reflexively.

An example of this phenomenon in action is the use of the word 'fairness' in the theme of *'troubling trustworthiness, fairness and social justice'***.** Fairness is an important concept in this work for both me and students, but my data say that this means something different to us depending on our positionality and perspective. To me, it primarily means improving student satisfaction and making the UCLMS experience more equitable and inclusive. My hope as a programme leader is that this may be reflected in improved metrics (e.g. NSS). To students, 'fairness' means making the examination process more equitable (and with my cynical hat on, I could interpret this more deeply as translating to an individual benefit to a student). Fairness ties in with the concept of social justice e.g. #MeToo and BLM as discussed in Chapter 2 and throughout this work. Similarly, 'trust' and 'trustworthiness' has featured many times throughout this research. For students, my data say that this is primarily an issue around assessment, with a lack of trust for the Medical School regarding transparency and granularity in examinations, which may also reflect a lack of understanding of process by students. I reference the messages passed down to generations

of medical students though the UCLMS ‘hidden curriculum’ or as it is referred to in Appendix 1, the ‘Huntley Street Grapevine’:

> *‘The most negative thing about medical school is that everyone relies on the grapevine too much — I wish the medical school could be more open so that everyone has access to the same information’*
>
> *‘[UCLMS] relies on an old-boys’ network where some people know things from above years which helps them and keeps them in the know.’*
> (Excerpts from UCLMS National Student Survey 2018, Appendix 1)

This latter quote with its reference to those *‘in the know’*, hints at the perception of ‘exclusive clubs’, which in turn resonates with the challenge to, and dismantling of, historical power and the emboldened voice of students who see themselves as marginalised or outside of such privilege. For me, trustworthiness is around both meeting the LaBoskey principles of self-study (Chapter 4) and also in improving the student experience.

To me, my data say that students are more focused on the immediate, or ‘micro’; I am more focused on the longer-term goals, or ‘macro’ picture. Students are focused on navigating through obstacles and hidden burdens; I am more focused on the departmental and Institutional reputation. I see the issues from the perspective of doctor/ educator/ leader/ student and mother. Students may have a more singular focus but carry the additional burdens of competition and fees.

The theme of compromise and navigating uncertainty also means something different to the stakeholders here. To students it means acquiring some order and structure through the CM around the overwhelming prospect of ‘learning medicine’; to me it means balancing the expectations of stakeholders (students,

colleagues, the regulator), improving the student experience and accompanying educational metrics, and tolerating complexity (increased recently through the uncontrollable events of Covid-19). To students, changing the ways they learn (away from the safety of 'A' level specifications through Schön's (1983) *'swampy lowlands'* of clinical practice) can be uncomfortable. To faculty, embracing new technological ways of working and adapting to generational learner preferences can be challenging too.

Most importantly and definitely perhaps, this research has provided an insight into exactly what students want from a CM. Through the survey and focus groups they have said that they want ***an undergraduate syllabus to clarify content for assessment***. They have signalled that they anticipated the CM would be a bespoke *'UCLMS textbook'*. Their appetite for detail seems vast; they would ideally not only value an exhaustive and comprehensive 'textbook', but would also favour content being stratified according to the likelihood of it featuring in examinations. As noted, it is challenging culturally to move learners into an 'HE mindset', away from the security of didactic lists. Therefore, in the students' view the CM has gone part-way to reflecting the formal or intended curriculum, termed here *'syllabus'*, albeit in less detail than they would have liked. As they deem detail to be lacking, they do not fully trust the CM as a tool to guide their learning, primarily for assessment. Before embarking on this work, I expected a level of mistrust to emerge, but I was somewhat surprised by the anti-institutional messages that appear to exist within the Medical School's hidden curriculum. Some students appear to find adjusting to the perceived

institutional powers and the new set of accompanying expectations and ‘rules’, somewhat unpalatable and challenging.

However, when this issue is viewed through another lens, the story is a different one. My autoethnographic data show that it is precisely this lack of fine detail in the CM that enables faculty to apply flexibility and discretion in assessment. This level of granularity, which has been interpreted by students as ‘vagueness’, particularly in the Intended Learning Outcomes (ILOs), is what my own data and discussions with colleagues say allows for an operationalizable examination strategy. By keeping the ILOs broad, faculty can justify (and even defend) its assessments, in a climate where students as powerful ‘customers’ in the system can challenge them. Therefore, these findings again show divergence regarding different stakeholder views on the purpose and drivers of the CM.

In the early years, medical students who are mainly recent school-leavers, yearn for course specifications and tick-box lists. This is what they have come to rely on in at school. As later year students, they are evolving as adult learners and beginning to comprehend that the vastness and complexity of medicine renders it philosophically ‘unmappable’. They start to understand that their learning depends heavily on clinical experience and acumen coupled with an independent mindset. Compared to the early years, my data show that the later years students are relatively content with the CM, having never had one before. They are generally willing to use the CM as a frame or guide, as opposed to a definitive source of knowledge.

These findings also show that medical students do not generally ascribe the same importance to professionalism and the 'soft skills' as medical educators do (Cooke et al, 2006; Sullivan, 2005). These data say that the vast majority of students (80% responding to the survey) do not use the CM for learning the non-technical 'soft skills' including professionalism, which are vital for clinical practice and are the cornerstone of the GMC's undergraduate blueprint, *Outcomes for graduates* (2018). UCL students regard these skills and knowledge as being predominantly *'common sense'* (p.190) and not as difficult to learn for examinations as the 'hard science' content of the course. One focus group participant in the later years referred to the soft skills as *'noise'*, distracting from the science. I remember feeling similarly as a medical student; with so much other material to learn, there could be an element of 'gaming' (chance-taking) for exams regarding these non-technical areas. There is a more radical school of thought that goes so far as to posit:

> *'the social institutions of medical education now have a problem of trust, the authors suggest, and one consequence is that the idea of professionalism itself is viewed negatively ("the 'p' word") by medical learners as repressive and weaponized.'* (Roberts, 2020)

Therefore, whilst these skills have been signposted equally to other content in the CM, I accept that many students are less interested in them. This is disappointing as the lead for professionalism, and a seasoned practitioner. Encouragingly though, final year students poised to enter professional practice say in this study that they are more concerned than their more junior counterparts with the professional components of the CM. It is clear from these findings that the six-year MBBS cohort is not a homogeneous group; they

display attitudinal differences as they progress through the MBBS programme, evolving from layperson into fledgling professional.

9.4 Relationship of findings to the literature

My literature review points to leaders needing to understand their stakeholders or 'customers' (see p.33), especially in the climate of *'new power'* (Kotter, 2012; Timms & Heimans, 2018). In this era of *'powerful knowledge'* with students as *'agents of change'* (Harland and Wald, 2018), I note parallels with clinical practice and the demise of medical paternalism, with patients wanting to contribute actively to decisions around their care. Humans, whether patients, students or leaders, appreciate having some control over their environments and destinies, something that the events of recent months (with Brexit and Covid-19) have reduced. To both stakeholders researched here, the CM offers a degree of certainty in a climate of complexity; however, again both convergence and divergence in the findings are evident. For students a quest for some certainty around assessment is key. They want the Medical School to demonstrate that they are acting with transparency and fairness: *'levelling the playing field'* for students. I take a more institutional and regulatory approach to the certainty that the CM offers to practice.

In addressing the research question of whether the *whole* curriculum has been reflected in the MBBS CM, my data again show variance in the findings on this question. Applying my theoretical position of *curriculum as syllabus*, as per

Harden (1997, 2001) and English (1978, 1984), the CM product could indeed be regarded as largely meeting this, in that the *whole* syllabus (or material content) has been mapped. However, my autoethnographic data show that having pondered the concept of curriculum throughout this work, I do not consider the MBBS CM to have reflected the curriculum in its true entirety. A more inclusive theoretical framing of *curriculum* (as per Kelly, 2009) would indicate that the informal and hidden curricula (outlined in Chapter 3) have not been reflected in the CM. I refer back to something I wrote as I embarked on this CM exercise:

> '*The UCLMS curriculum map will be unlikely to reflect the totality and complexity of true undergraduate medical learning.'*
> (FG, October 2018)

I have not encountered any reference in the literature to a CM which has aimed to reflect the informal curriculum (activities which happen alongside timetabled learning, such as in clubs and societies). Indeed, one could argue that an HEI prospectus or website could be a more suitable platform to reflect information of this nature. With respect to mapping the 'hidden curriculum' in medicine (or indeed in other disciplines), I have yet to identify any CM that claims to reflect these elements alongside the formal curriculum. The hidden curriculum remains largely unquantifiable, undocumented and often unknown outside of the student and alumni communities. In summary, in adopting a pragmatic stance of curriculum equating to syllabus, the CM could be said to have achieved this intended aim.

The stakeholder lens can be applied in various ways to the question of the CM's purpose; if the CM was designed principally to pass GMC inspection, then one could argue that it has been successful in this regard. This can be substantiated objectively, as in January 2020, the GMC requested evidence of UCLMS' compliance with *Outcomes for graduates (2018)*. UCLMS provided a portfolio of evidence, (chiefly the MBBS CM) and pending future inspection, the regulator was satisfied. So, by using the 'metric' of passing the regulatory body's approvals as the measure of success of the CM, this is one way in which this aspect can be judged. Another measure of success will come in the form of national and institutional metrics, including the NSS (see Chapter 10). A further judgement of this will come from the reader, who through using the tenets of self-study (LaBoskey, 2004) will also form their own measure of this 'success'.

Other findings from this research support the literature: that a culture of positivism (numbers) over interpretivism (narratives and meaning) reigns over the medical landscape (see Chapter 2). In this study, the 'hard' content has been shown to rule over the 'soft'. This dominance of 'hard science' over the 'soft skills' has been inculcated in generations of medical students, just as in a parallel educational culture *'hospitalism'* (Bleakley, 2021) overshadows community medicine (p.55). Paternalism may be waning in patient care, but these data and others (Boler, 1999), suggest that a 'macho' culture still endures within medical education. So long as professionalism is labelled 'soft' and deemed difficult to assess, the 'hard' scientific content is likely to retain this dominance.

Outcomes for graduates (2018) and other key policy documents cited in Chapter 2 may go some way to changing this ethos, with their clear signalling that professionalism is at the heart of practice. However, as medical educators we may need to overtly signpost this cultural and pedagogical direction of travel through early interventions, such as medical school open days. The branding of professionalism and role modelling of professional behaviours may need to be promoted more strongly to enable this paradigm shift. Happily, the UK Council for Teachers of Medical Professionalism is actively assisting nationally in planting professionalism high on the agenda of the GMC's Medical Licensing Assessment (MLA; see Chapter 2) and medical education more widely.

As discussed in Chapter 2, my findings highlight the political and pedagogical dichotomy that increased regulation can bring. The reliance on, and dominance of, educational metrics has introduced somewhat mixed messages by simultaneously professionalising and de-professionalising higher education. On one hand, through the introduction of increased regulation and governance metrics 'professionalise' higher education, whilst on the other they 'de-professionalise' it by reducing institutional freedoms and autonomy. I refer back to Spielman (2019) who calls for the curriculum rather than the data, to (re)take centre stage (see p.34).

With the onus on metrics and numbers, there has been a dominance of positivist, quantitative enquiry. However, there is a dawning realisation that this can be a reductionist way of evaluating both medicine and medical education, with a recent lean towards interpretivism and a growing acceptance of the value

of qualitative research. This research taps into this paradigm shift in epistemological traditions within medicine and medical education. Whilst embracing this epistemological swing, I am mindful of the potential criticism that I too am introducing what could be perceived to be another positivist checklist or tool: a curriculum map.

A strong theme in this research which supports findings within the medical education literature (undergraduate and postgraduate), is that assessment drives learning (Buss et al, 2012; Newble & Jaeger, 1983; Newble, 2016). Indeed, this goes beyond medical education. As highlighted in my literature review, in education generally it is challenging to separate assessment, pedagogy and curriculum (Dann & Hanley, 2019). This has been borne out in this work, where the CM has been perceived by students to be a *syllabus for assessment*. Whilst the strong correlation between learning and assessment has been noted previously (ibid; Dann, 2019), this study additionally highlights the messages around assessment transmitted within the 'hidden curriculum' (Lempp, 2014). These pivot around mistrust for the 'old power' (Timms & Heimans, 2018) of the Medical School. This mistrust appears to extend to the CM too, with students expressing scepticism about its trustworthiness as an adjunct to assessment. These powerful messages circulated within the student body ('new power') appear to override 'official' statements from the Medical School, as my data say the former are widely considered as more reliable and trustworthy than the latter.

9.5 Revisiting the limitations of this research

Whilst analysing my data, I wondered if I had opted for an overly complicated research strategy. I found myself pondering if the student survey added any value to the enquiry. Reflecting on why I had chosen this method, I decided that it was mainly to demonstrate the 'democratisation' which I named as being an important and emerging factor within higher education (p.40). Whilst this survey does not act as a robust statistical device, it has offered some broad insights across a sizable sample of the student body. The limited descriptive statistics derived from it allow it to act as a 'barometer' of student opinion. I acknowledge that a sample of 232 students represents around 12% of the whole UCLMS population and only includes the self-selected student respondents, who may hold stronger views by virtue of the fact that they were motivated to respond. However, these data are useful in two ways; they act as a complement to the pre-mapping survey (n=409) data as well as providing some 'headlines' that I have presented at departmental and divisional committees. In addition, the survey was used to inform the focus group question schedule (see Chapter 8), which enabled richer, in depth student data to be collected. So, on reflection, although limited in its scope, I feel the survey has added some value to the study.

The CM had not gone through a whole academic cycle when my data were collected. Correspondingly, it had also not gone through a cycle of assessment, and this piques an interest in a follow up study to investigate whether attitudes to the CM change as it becomes embedded in medical student life. Therefore, it

would be interesting to repeat this data collection once the CM is more mature and had been through more than one academic cycle and been subject to a longer period of user feedback. Retrospectively, the inclusion of Year 3 students (outside of the MBBS programme) was problematic in this research. Clearly, some of these students were commenting on the CM with the expectation of it covering their year of study, which it does not. Additionally, the lack of a dedicated Year 6 CM page (which is available from 1st September 2020 but was not during the data collection period) may have skewed the Year 6 data. Again, it would be useful to repeat this analysis once this element of the CM has embedded. As previously stated, my data are young, and it will therefore be too early to draw definitive conclusions about the CM. It needs to have a chance to embed into the fabric of the MBBS. As mentioned, the lens of other stakeholder groups on my research questions would add value: for example, that of clinical teachers or UCLMS alumni. I offer these points for the benefit of any colleagues planning to develop similar resources, and suggest they consider learning from some of the limitations that I highlight in my study.

9.6 Personal utility

As outlined in Chapter 2, the UCL EdD student should:

> *'…demonstrate [their] understanding of professionalism and his/her own professional role and the contribution of the thesis to his/her professional development'* (EdD handbook, p.31)

I believe that I have followed these principles, particularly through my choice of methodology; collecting autoethnographic data and applying a self-study

approach to the professional practice problem has meant that my professional development has been centre-stage in this work. As outlined previously, LaBoskey (2004) posits that there are five pillars to S-S work:

- self-initiated and focused
- improvement-aimed
- interactive
- includes multiple (mainly qualitative) methods
- defines validity as a validation process based in trustworthiness

I believe that I have met the first four, and according to scholars including Loughran and Northfield (1998) and Eisner (1997), it is the reader and community of practice who principally assess the fifth pillar. These authors argue that it is a *'community decision'* through discussion and publication as to whether work has trustworthiness. My readership (including supervisors and examiners) will judge whether the distinctive research methodology and blended methods have been successful in creating congruent argumentation that has addressed my research questions and augmented knowledge in the field.

Whilst proud of the CM and the achievements of my team, I have reflected on the danger of what Kotter (2012) calls *'declaring victory too soon'* (p.13), as being one of the pitfalls in leading change. He maintains that most large projects risk losing momentum and must be invested in and attended to over a three to ten year period post-implementation in order to ensure that they remain relevant and *'seep into the very bloodstream of the work unit'* (p.14); an apt description when applied to a medical school. According to Kotter (2012), none of these changes will become anchored unless they are well communicated and

the wider team feel that they have been rewarded with short-term gains, despite the changes being part of a longer-term endeavour (see p.31 for 'short fixes and long goals'). I acknowledge the on-going need for me to lead in a way that mitigates and prevents the CM project from sinking into Kotter's (2012) *'quicksand of complacency'*. I need to keep this relentlessly on the Medical School agenda as the 'CM champion' until it is part of the rubric of the school, even if it means seeing '*self as puppet'* (p.144).

9.7 Summary

In this chapter, I have summarised and contextualised my findings, acknowledging both convergence and divergence in the data, as well as the limitations of my research strategy. In the final chapter, I reflect on the whole study and consider its impact and future work.

Chapter 10: Conclusion

> *'We want to know and understand in order to be able to act and act 'better' than we did before'* (Langeveld, 1965, p.4)

10.1 Introduction

In this chapter, I summarise my research study and consider its impact and future work that could arise from it. I 'join the dots' by situating this study in the wider medical educational landscape of shifting paradigms and diverse stakeholder agendas. I revisit the notion of audiences who may profit from this work, including myself. I have shone a light on an area of practice and researched a real-world professional practice problem and in doing so acknowledge the living tensions between metrics and narratives, politics and pragmatism, short wins and long goals, freedoms and constraints. Bearing these competing factors and stakeholder agency in mind, this study evaluates the UCL Curriculum Map from a position of **compromise**. Finally, I reflect on my experience through the EdD programme.

10.2 Summary of the study

This study does not describe in detail the process of curriculum mapping. However, it does retrospectively, reflectively and reflexively examine whether the theoretical processes involved in the planning, designing and

implementation of the UCLMS CM project have created a fit-for-purpose product in the eyes of student users and myself as CM architect.

This study is, to my knowledge, the first to analyse an undergraduate medical curriculum map through multiple user lenses. By critiquing the CM exercise through my blended interpretivist methodological approach, I have offered an edge or 'unique selling point' which makes my research original and distinctive. The student lens offers an authentic, and at times disruptive, angle to this work. My perspective adds another lens. My hope is that this novel approach will provide insights and knowledge for my community of practice by offering alternative perspectives on curriculum mapping; prisms that consider and value *'lived experience'* (Whitehead, 1927-8) and *'real world'* elements of educational research (Robson, 2002). By focusing on authentic learning, I anticipate that this work is viewed as being student-centred and relevant to students.

Throughout the CM exercise and this post-mapping critical analysis, I have been acutely aware that actions have consequences, intended and unintended (see Figure 2). At times during the curriculum mapping project and beyond, into this critical analysis phase, I have been troubled by whether undertaking this work has actually been in the interests of the Medical School and its students. In producing an electronic syllabus, this work may have ignited another practice problem in raising expectations around provision of detail for examinations, thereby further fuelling the notion of assessment driving learning. I have wondered in retrospect, whether *'masterful inactivity'* (Mai, 2014) would have been better.

This research has shown that particularly through the recent uncertain times characterised by Brexit and Covid-19, and with changes in power balances in HE and societally, discussions around medical education are narratives in flux. The global uncertainties of the past months seem to have unearthed and unleashed powerful bottom-up power surges around issues that were already simmering in HE. For our students, perceptions of racial injustices in healthcare along with resentment and mistrust of faculty around assessment, have been given a platform and licence to come to the fore. Perhaps disruptive opportunities arising from Covid-19 and BLM have provided an opportunity to do something very different in the future? It was Churchill (circa 1940) who has been attributed with saying, *'never waste a good crisis'*.

At UCLMS, we elected to map the syllabus down to module level, as opposed to lecture level as another local medical school has done. Informal conversations with colleagues from this school reveal that their model requires considerable manpower and resource and has resulted in onerous ongoing maintenance and curation. Whilst the UCLMS approach has resulted in its CM being relatively easier to maintain, our students have voiced some disquiet about what they perceive to be a discrepancy between our CM and that of another medical school (via the 'Unitu' real time feedback platform). I therefore return to a thread that has manifested throughout this work: this project, as well as many others in HE (and indeed in life), has been about achieving pragmatism and compromise. What this work highlights is a need for the application of professional judgement alongside arithmetic and metrics.

10.3 Potential impact of this study

As a UCL leader in undergraduate medical education, I awaited the 2020 National Student Survey expectantly, to see whether there was any evidence or inference that could be drawn regarding the early impact of the CM. However, a caveat to this is the 2020 data (July 2020) having been gathered in a session that final year UCLMS students have not had a dedicated CM: from 2021 the NSS data on assessment and feedback may therefore reflect more accurately whether the CM has had any impact on these metrics. Nonetheless the overall metrics assessment and feedback domain have improved:

Select programme →	MB BS Medicine			
Headlines	2020 % agree	2019 % agree	2018 % agree	Change vs 2019
Overall Satisfaction	88.1	#N/A	81.5	#N/A
Teaching	86.8	#N/A	82.7	#N/A
Learning Opportunities	84.9	#N/A	82.0	#N/A
Assessment and Feedback	61.0	#N/A	49.2	#N/A
Academic Support	69.3	#N/A	62.1	#N/A
Organisation and Management	72.0	#N/A	59.3	#N/A
Learning Resources	88.8	#N/A	81.4	#N/A
Learning Community	76.5	#N/A	74.8	#N/A
Student Voice	80.0	#N/A	68.8	#N/A

Table 10: Excerpt from NSS 2020

In addition, there were two free text anonymous comments in the NSS 2020 about the CM, which pick up on the themes from this study's findings of fairness and social justice:

> *'Students are a lot more relaxed [flowing publication of the CM] and feel for the first time that there is a level playing field. I would like to thank UCL for acting on this and for understanding where students were coming from. I think it will make a huge difference to student's mental health in the future.'*

‘Amazing work done with…the Curriculum Map for streamlining learning and aiming to cull cheating incidences.’

There are other confounding factors at play, so I cannot say with confidence that the CM is solely responsible for improvements in the feedback on assessment. For example, in 2019/20 we increased our manpower within the Assessment Unit. Therefore, the metrics available may be too blunt to be able to accurately measure the student-judged ‘success’ of the CM, but like the survey used in this research, the 2020 NSS does offer a ‘barometer’ on student opinion, whilst acknowledging that it is those with stronger views who tend to respond to surveys.

The CM has also impacted on feedback from other secondary data sources, in the form of comments on Unitu (an example is shown in Appendix 6), Student Evaluated Questionnaires and Student Staff Consultative Committees. In addition, reassuringly I have some early objective measures of the CM’s success and impact. The CM was awarded;

- UCL Faculty Education Award 2020
- UCL Provost Education Award 2020

The UCLMS CM is also the subject of an oral presentation at an international medical education conference in September 2020 (AMEE, Association of Medical Education in Europe).

UCLMS has been able to build a picture of the CM’s use by logins, including its international use (mainly by UCL medical students living abroad) during Covid-

19 lockdown (Figure 19). The figure shows encouragingly high international use of the CM.

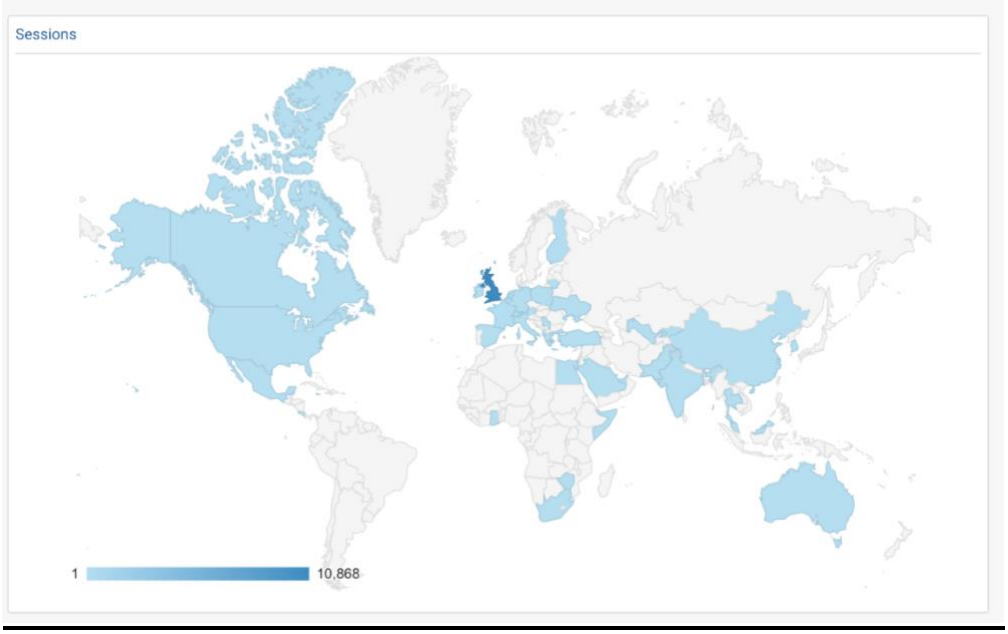

Figure 19: Worldwide usage of MBBS CM during lockdown (March-July 2020)

10.4 Professional utility

I wanted to be a doctor from around the age of eight. I remember the only competition for this decision was whether to become a teacher (my father is a doctor, which resonates with the heritable nature of medicine as a profession; my mother, a teacher). Through deliberately crafting a *'portfolio career'* (p.44) involving the 'doctor-teacher' identity (Stone, 2002), I have cultivated a marriage of the two. Through the EdD, I have come to recognise the complementarity of my two professional roles better:

> *'Teaching and medicine are natural partners and their rewards often similar, including keeping up to date, humanism, reflection, and enjoyment from helping others learn'* (Griffin, 2008, p.354)

A portfolio career allows me to bring multiple identities and lenses to practice and problems. In addition, this research opportunity has enabled me to put into practice some of the learning from the UCL Arena Leadership course that I started in 2019. The EdD has given me an enhanced strategic understanding of a practice problem and through self-study, has enabled me to insightfully understand and improve my practice. This has been an intellectual and scholarly choice, which has been inspired by role modelling of the tier of educational leaders above me. I am part of the 'second generation' of UCL medical educational scholars who have begun to bring an educational bias to practice, and I am aware and proud of this bold heritage.

Shifting professional discourses and emerging hybrid identities form a basis for 'new professionalisms'. I have mirrored this is in my experimental hybrid methodological approach to this research. This research acknowledges that several of the issues discussed could be considered to be *'wicked problems'* (ones without clear solutions) and for doctors who are inculcated as problem solvers, this can pose an uncomfortable truth. I frame my identity as a 'hybrid self', both student and professional:

> *'I am a bridge between old & new with the paradoxes that this entails. I need to see things as our students do, to modernise accordingly.'* (FG, August 2020)

I return to the aims of the EdD in addressing the question of the professional utility of this doctoral work:

> *'the thesis [should] form(s) a distinct contribution to the knowledge of the field of study and affords evidence of originality and a capacity for autonomous research'* (EdD handbook, 2019/20)

I also return to Kirchherr (2018), cited in Chapter 1, with his vision to:

> *'…reimagine a PhD that is designed not to win kudos within the academic community, but rather aimed at discovering something new that will be useful for practitioners and have real social impact.'*

As my findings show, with a theme about *'building legacy'*, this work forms the start of an ongoing pedagogical endeavour. The initial 'utility' has begun in the form of the CM undergoing iteration and improvement. So far, at the close of its first cycle, dynamic developments have allowed student-centred changes to be made to the CM: for example, enabling the exporting of downloadable lists of clinical skills. This reflects another of the themes that emerged; *'navigating uncertainty'*. Faced with the enormity of a medicine programme, students appreciate some order in their learning and although as discussed previously, many accept that not all learning can be packaged in check lists (particularly as they advance through the course), it is challenging to move learners away from lists altogether, as these do seem to offer some certainty. This is deeply rooted in pre-medical school learning and perhaps plays to cultural stereotypes as doctors being problem solvers.

No previous published research on curriculum mapping has adopted the same methodological frameworks and 'mash-ups' of methods. This is therefore novel work exploring contemporary paradigms, reflecting the fact that the outcomes (including production of an electronic curriculum map) are pedagogically and technologically cutting-edge. On reflection, along with hermeneutic

phenomenology which looks for interpretation and meaning, and allows for researchers' biases and values, self-study has been a suitable methodological choice for this research. It has enabled reflexion and self-criticality in a way that has been constructive. Applying critical reflexivity, I consider that this complex methodology has enabled my multiple positionalities on this project to be included: those of clinician, educator, leader, manager, student, mother, citizen. Through this work I recognise that my biography has changed and developed and continues to do so.

I hope that by critically appraising the curriculum mapping project in a scholarly and rigorous way, I have been able to draw some evidenced conclusions about whether the CM has captured the syllabus, including the traditionally harder to depict and assess aspects, such as professionalism. I hope too that it has produced some authentic learning, through applying knowledge in real-life contexts and situations, which I plan to showcase to my undergraduate medical education community of practice at conferences and through publication in peer-reviewed journals. I will need to be tentative in extrapolating my findings to apply to other higher educational sectors or branches of healthcare. However, I believe there are important and transferable messages in my findings and conclusions.

10.5 Future avenues

Informed by this research, the CM project will act as a 'springboard' to a whole or 'dynamic curriculum review' (Mcleod & Steinert, 2015). However, this work

too will come with consequences; political, pedagogical and financial. Spaces will need to be created in what has been described as an *'overloaded'* medical curriculum (Bandaranayake, 2000). New and complex areas have now been mandated, including the medical humanities, the uncertainties of clinical practice, and the inclusion of previously marginalised patient groups. Learning will also encompass the legacy of Covid-19 as the HE landscape has been forced to change through 2020. I feel that now, amongst the disruption and opportunity, a prescient and opportune moment presents itself to undertake a renewal and refreshment of the MBBS curricular content. A wholescale review has not been undertaken since my mentor (JD) led '*MBBS 2012'*. Mcleod and Steinhart (2015) state that:

> *'the overall goal of the renewal should be to assure timely, evidence-based curriculum responsiveness to changes in practice, healthcare, student needs and educational approaches based on quality research'* (p232)

Professional utility (for self, the UCLMS and wider community) could also be sought in the future by repeating elements of this research, after the CM has been through several academic cycles, and for data to be gathered from faculty members and clinician teachers to offer further key stakeholder lenses on this.

As medical educators who have mapped an undergraduate surgical curriculum, Sterz (2018) says:

> *'Curriculum mapping shows concordances and differences between the intended and the taught curriculum'* (Sterz, 2018, p.417).

Sterz (ibid) found that adherence to learning objectives increased post-mapping without prolonging teaching time; therefore it would be interesting in the future to analyse the effects of curriculum mapping on how UCL MBBS curricular content evolves. In particular, it would be pedagogically valuable to research whether the CM has aligned teaching materials with intended learning outcomes and assessment content.

On the latter issue of assessment, our student 'customers' will hold us to account, as they are already doing through various feedback mechanisms. My findings have reinforced that trust from students pivots on transparency with assessments, and this trust will be undermined if we as education leaders do not demonstrate transparency and integrity. Other future legacy work could concentrate on honing the *'vague'* ILOs, whilst keeping the balance between what students and faculty want from ILOs regarding assessments. A further piece of work from this research could be to raise the MBBS profile of professionalism, in accordance with the GMC's *Outcomes for graduates* (2018). I do not envisage this work leading to changes in local or national policy, but I do see it informing colleagues' practice: in fact, the template is already being used by colleagues to map courses in other UCL faculties.

10.6 Final reflections

Referring back to Hill's (2008) poem in my reflective statement (p.17), I feel that this work has given me a glimpse into the inner world of medical students, just as I have been privileged enough to have experienced with patients through my

career. In linking this work to my clinical persona as a palliative medicine physician, and in approaching the end of the EdD which has consumed several years of my life, I am reminded of the five stages of grief and loss described by Elisabeth Kübler-Ross in her seminal work *'On Death and Dying'* (1969) (Figure 20, below). I have observed this cycle amplified and accelerated during Covid-19, not only for patients, but for their families who have in many cases been deprived of normal grief rituals. I have also witnessed colleagues and students, who have been forced to adapt to disruption and changing learning paradigms, experiencing a similar cycle of loss and grief.

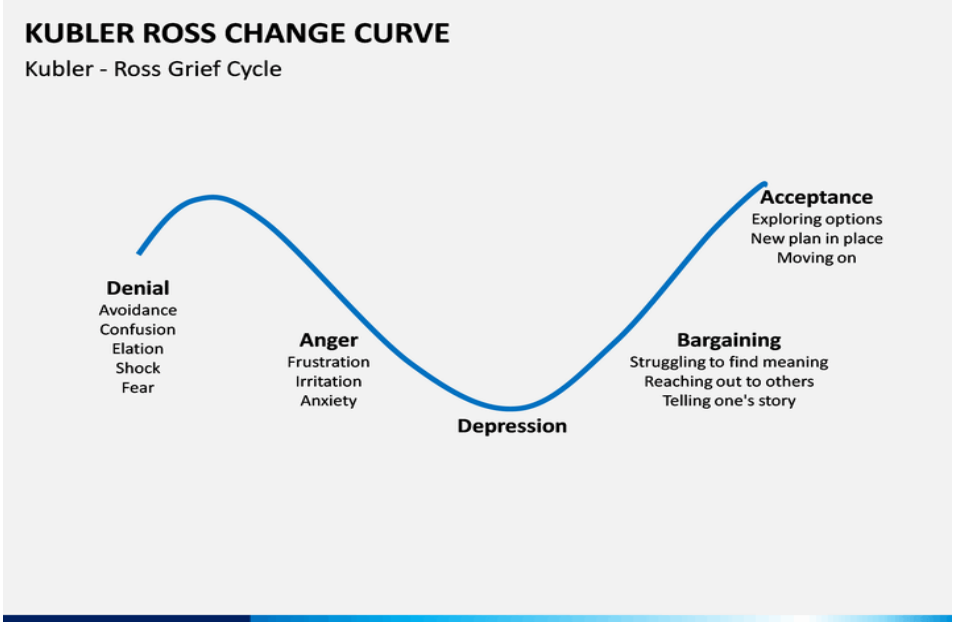

Figure 20: Elisabeth Kübler-Ross's Grief Cycle (1969)

One of Kubler-Ross's academic collaborators, David Kessler, added with posthumous permission from her family, a sixth stage: *finding meaning* (Kessler, 2019). Just as in this CM critical analysis, finding meaning is a key driver for sense-making. This link to death makes me think of the meaning of this research: its 'afterlife' or legacy. I link *'finding meaning'* to my theme of

'building legacy'. I have been told to expect to grieve after completing this work. This is not something I currently foresee, but in the spirit of self-study with its central tenets being to challenge assumptions, I will remain open-minded to this possibility…

For me personally, the EdD has been a bold endeavour, requiring bravery and fortitude. At some points, I felt as if I was flying- as if everything was coming together; at other times, not. I have been working at what I would describe as the professional and pedagogical 'jagged edges' of practice. I cannot claim to have fully solved the professional practice problem of whether the UCLMS CM is fully fit for purpose, whether it depicts the *whole* curriculum, meets the institutional and national metrics, and improves the student experience. What has emerged though, is that the CM can never fully satisfy all the different agencies. However, it has gone some way to doing this for *all* of the stakeholders. It could therefore be viewed as a tool of compromise. This links back to what my mentor suggested it should be when I first discussed the project with her over two years ago. Importantly, I have taken the first steps to researching and understanding the problem, and in pledging to share my knowledge more widely, leave my footprint on scholarship in medical education.

I end this thesis with the same quotes as I started it with, as these seem more relevant than ever:

> *'Medical education appears to be in a state of perpetual unrest'* (Cooke et al, 2006, p.1339)
>
> *'The world of medical education is more complex than ever and there seems to be no end in sight.'* (Mennin, 2010, p.20)

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Appendices

The following are not included in the appendices but are available on request;

- Focus group transcript year 4 & 5
- Focus group transcript years 1 to 3
- Statistics from student survey
- Free text comments from student survey

Appendix 1: UCLMS National Student Survey Summary: a comparison of 2017/18

UCLMS National Student Survey Summary: a comparison of 2017 & 2018

Qu No	Question	2017	2018	Variance
The teaching on my course		**87%**	**83%**	**-4%**
41.	Staff are good at explaining things	88%	86%	-2%
2.	Staff have made the subject interesting	87%	80%	-7%
3.	The course is intellectually stimulating	96%	91%	-5%
4.	The course has challenged me to produce my best work	78%	74%	-4%
Learning opportunities		**86%**	**82%**	**-4%**
5.	My course has provided me with opportunities to explore ideas or concepts in depth	79%	71%	-8%
6.	My course has provided me with opportunities to bring information and ideas together from different topics	83%	77%	-6%
7.	My course has provided me with opportunities to apply what I have learnt	97%	97%	0%
Assessment and feedback		**59%**	**49%**	**-10%**
8.	The criteria used in marking have been clear in advance	56%	46%	-10%
9.	Marking and assessment have been fair	79%	59%	-20%
10.	Feedback on my work has been timely	49%	43%	-6%
11.	I have received helpful comments on my work	52%	48%	-4%
Academic support		**67%**	**62%**	**-5%**
12.	I have been able to contact staff when I needed to	83%	73%	-10%
13.	I have received sufficient advice and guidance in relation to my course	60%	61%	+1%
14.	Good advice was available when I needed to make study choices on my course	57%	51%	-6%
Organisation and management		**62%**	**59%**	**-3%**
15.	The course is well organised and is running smoothly	66%	63%	-3%
16.	The timetable works efficiently for me	63%	60%	-3%
17.	Any changes in the course or teaching have been communicated effectively	58%	55%	-3%
Learning resources		**83%**	**81%**	**-2%**
18.	The IT resources and facilities provided have supported my learning well	83%	79%	-4%
19.	The library resources have supported my learning well	80%	81%	+1%

20.	I have been able to access course-specific resources when I needed to	86%	85%	-1%
Learning community		**77%**	**75%**	**-2%**
21.	I feel part of a community of staff and students	65%	63%	-2%
22.	I have had the right opportunities to work with other students as part of my course	89%	87%	-2%
Student voice		**73%**	**69%**	**-4%**
23.	I have had the right opportunities to provide feedback on my course	89%	91%	+2%
24.	Staff value students' views and opinions about the course	77%	65%	-12%
25.	It is clear how students' feedback on the course has been acted upon	74%	50%	-24%
26.	The students' union effectively represents students' academic interests	50%	41%	-9%
27.	**Overall, I am satisfied with the quality of the course**	**89%**	**82%**	**-7%**
Connected Curriculum				
28.	My learning has benefited from opportunities to participate actively in research and inquiry	73%	67%	-6%
29.	I have been able to learn about the research that staff in my department are working on	49%	41%	-8%

Excerpt from UCLMS National Student Survey summary 2018

- In 2018, the NSS response rate for UCLMS was 73%, substantially higher than in 2017. The response rate for UCL was 61%.
- UCLMS' overall satisfaction score decreased from 89% in 2017 to 82% in 2018. Overall satisfaction with UCL was 80%.

Areas for improvement

Particularly low scores were achieved for 'assessment and feedback'.

Multiple negative comments were made about the assessment of the MBBs programme relating to: a lack of curriculum for/guidance on what could be examined; a lack of/unhelpful feedback; the lack of re-sits in Years 4 & 5; the quality of the exams and the repeated use of the same questions; and the sharing of past questions among the student body. Comments included: *"the exam system: minimal guidance in the way of a curriculum (and the one that exists, it is incredibly vague), little transparency with respect to examinations structure and what is considered 'examinable content'"*; *"students who have access to documents from senior years are significantly advantaged in OSCE examinations"; "repeating SBA and OSCE questions from previous year's means that exams are, to a significant degree, a measure of how many past test question you can get from the year below"; "UCLMS breeds a culture of exam cheating and pressure. Not a suitable mechanism of assessment designed to be fair to candidates".*

The 'Huntley Street grapevine' was mentioned by various students, with comments including: "the most negative thing about medical school is that everyone relies on the grapevine too much — I wish the medical school could be more open so that everyone has access to the same information" and "relies on an old-boy's network where some people know things from above years which helps them and keeps them in the know"

UCL Student Experience Survey Results 2018/2019

Results are only displayed for programmes with a minimum of 5 responses
(<5 = fewer than 5 responses)

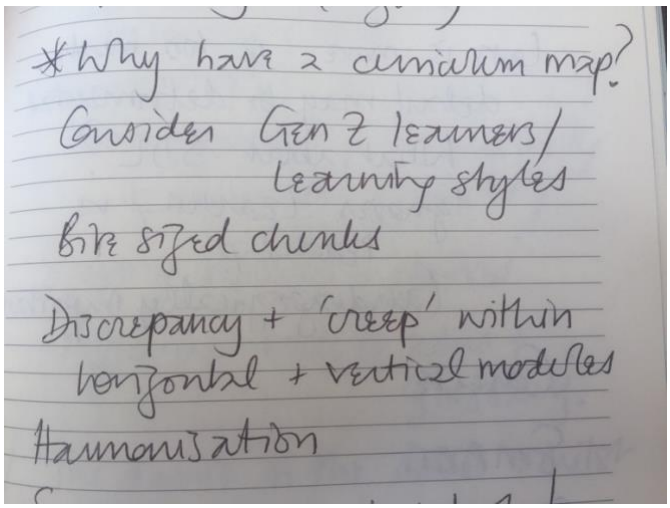
	MB,BS Medicine	
	2019	2018
The teaching on my course	**84.3%**	**85%**
Staff are good at explaining things.	**86.7%**	92%
Staff have made the subject interesting.	**85.5%**	84%
The course is intellectually stimulating.	**92.8%**	96%
The course has challenged me to produce my best work.	**72.3%**	68%
Learning opportunities	**83.5%**	**81%**
My course has provided me with opportunities to explore ideas or concepts in depth.	**73.5%**	69%
My course has provided me with opportunities to bring information and ideas together from different topics.	**81.9%**	78%
My course has provided me with opportunities to apply what I have learnt.*	**95.2%**	97%
Assessment and feedback	**54.7%**	**38%**
The criteria used in marking have been clear in advance…….	**54.2%**	36%
Marking and assessment has been fair.	**58.5%**	52%
Feedback on my work has been timely.	**59.3%**	26%
I have received helpful comments on my work.	**46.9%**	36%
Academic support	**69.5%**	**52%**
I have been able to contact staff when I needed to.	**74.4%**	68%
I have received sufficient advice and guidance in relation to my course.	**67.1%**	43%
Good advice was available when I needed to make study choices on my course.	**67.1%**	45%
Organisation and management	**58.1%**	**46%**
The course is well organised and is running smoothly.	**68.3%**	52%
The timetable works efficiently for me.	**57.3%**	47%
Any changes in the course or teaching have been communicated effectively.	**48.8%**	40%
Learning resources	**83.8%**	**83%**
The IT resources and facilities provided have supported my learning well.	**74.7%**	84%
The library resources have supported my learning well.	**91.6%**	83%
I have been able to access course-specific resources when I needed to	**85.2%**	83%
Learning community	**76.4%**	**79%**

I feel part of a community of staff and students.	**71.1%**	71%
I have had the right opportunities to work with other students as part of my course.	**81.7%**	86%
Student voice	**76.3%**	**58%**
I have had the right opportunities to provide feedback on my course.	**91.6%**	87%
Staff value students' views and opinions about the course.	**71.1%**	55%
It is clear how students' feedback on the course has been acted on.	**66.3%**	52%
The students' union effectively represents students' academic interests.	**46.3%**	39%
Research based education	**60.2%**	**65%**
My learning has benefited from opportunities to participate actively in research and inquiry	**65.4%**	71%
I have been able to learn about the research that staff in my department are working on	**55.0%**	59%
Overall, I am satisfied with the quality of the course.	**95.2%**	**86%**
Propensity to recommend UCL to others thinking of studying here*	**91.6%**	**95%**
The library study spaces have been sufficient for my needs*	**55.4%**	47%
Online resources and communications in Moodle have supported my learning well	**84.3%**	81%
I have been supported to develop the skills I need to work in a digital environment	**76.5%**	66%
The career development on my academic course has lived up to my expectations so far*	**64.9%**	52%
Careers events I have attended or services I have used were useful (if applicable)*	**65.5%**	49%
When you started your course, did you consider yourself to be fluent in the English language?*	**100.0%**	97%
If you were not fluent, do you agree that you have received appropriate support for your language needs?*	**N/A**	< 5
Response rate	**25.8%**	**21.6%**
Cohort size	**322**	357
Responses to survey	**83**	77

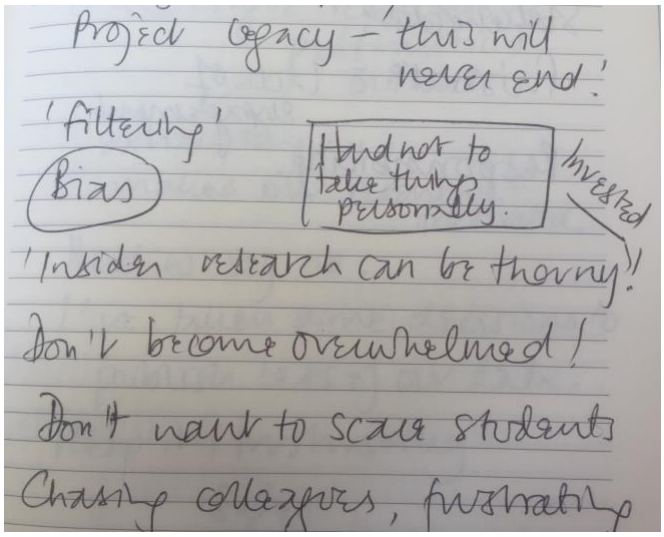
Appendix 3: Barbara Bassot's 'Metaphorical Mirrors', from *Bassot, B. (2016). The Reflective Journal. 2nd Edition (p.6). London: Palgrave.*

Mirror/Reflection Type	Mirror Explained	Type of Reflection Explained
The bathroom mirror (Reflecting on ourselves)	When we look in the bathroom mirror, we observe ourselves in the present. We make a choice; to decide to leave things as they are or take action to present ourselves differently to the outside world.	Examining our practice means that we are not always happy with what we find. However, taking action will always involve making a choice.
The rear view mirror (Reflecting back)	When driving, it is vital to look in the rear view mirror as well as to look at the road ahead.	Reflective practice involves looking back on experiences we have had, in order for us to understand the best way forward.
The wing or side view mirrors (Reflecting on feedback from others)	These mirrors help us see places that are not usually visible. They are usually convex to help us see what is over our shoulder, or in a blind spot.	Feedback from others plays a vital part in helping us to identify what might be a blind spot in our practice. It helps us understand ourselves and our practice from different angles or perspectives.
The magnifying mirror (Reflecting on detail)	This type of mirror helps us to see ourselves or an object closer and in more detail.	The close examination of an experience or ourselves in relation to an experience. Close examination can help us avoid issues in the future.
The funfair mirrors (Reflection can sometimes be distorted)	These mirrors distort what we see.	In practice, we can sometimes feel that things went perfectly with no need for improvement. Alternatively, we can sometimes be overly critical of our performance or an experience. Either way, there is always likely to be some level of distortion in how we see things. Getting feedback from other perspectives is therefore critical in reflective practice.
The shop window reflection (Reflecting naturally while we are in practice)	These are not actual mirrors but we can see our own reflection as we walk by.	This is a reminder that we are/can be reflecting as we are doing something else. This is what Schon called 'reflection-in-action', where we become tuned in to a way of reflecting on ourselves naturally while we are in our day to day practice.

Appendix 4: Examples of FG's scratch note from (i) March,2019 (ii) May 2019



(i)



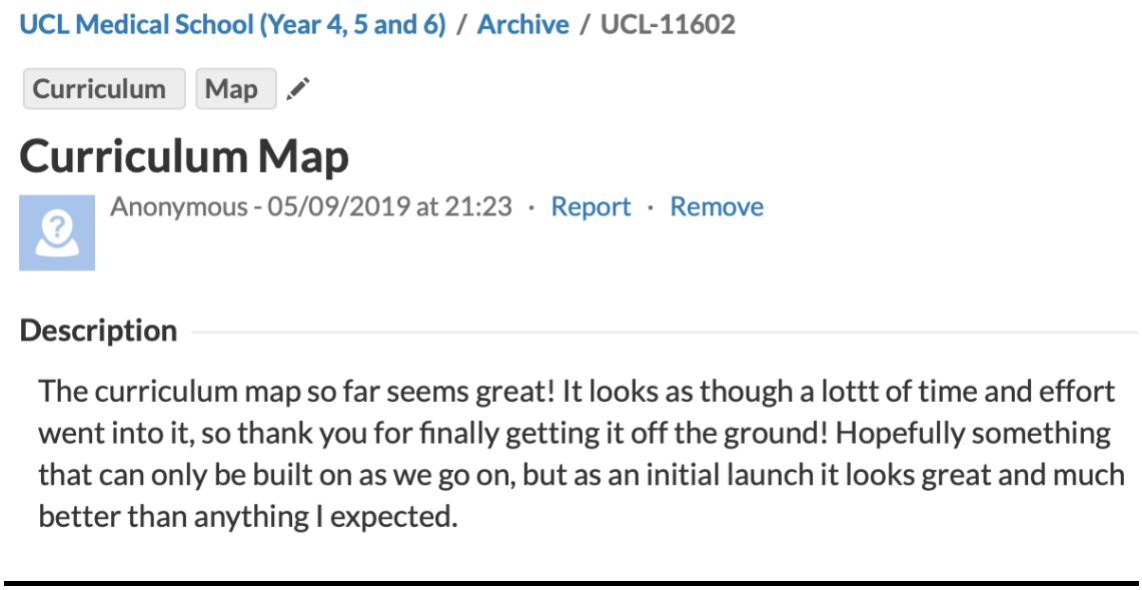
(ii)

Appendix 5: Coding Frames

Codes	**Theme**	**Codes/ notes**
Local vs national Students vs other stakeholders Aspirations vs practicalities Learning vs learning for assessment Hard science vs 'soft' science Intuition vs metrics Personalized vs pragmatic Early years vs later years Vertical vs horizontal	**Fairness and compromise: *'levelling the playing field'***	E.g. OfG/ MLA vs UCLMS needs Negotiation compromise (JD initial advice) Diplomacy Reputation Boundaries Containment 'I can only do what I can do' Reminding and constantly refocusing on key questions
Staying 'true' Limiting bias, recognizing bias (conscious/ unconscious Professionalism Keeping calm! Loneliness Bearing disappointment (self, team, colleagues, students) Control Leadership Rigour Accountability Good governance	**The challenges of (leading) change** **The burden of conducting insider research**	'us and them' Taking tough decisions Retaining 'fresh eyes' Critical friendship vital (as well as friendship/ support) Accepting 'good enough' cf. perfectionism (see prev IFS)
Link to OfG (2018) Curriculum as syllabus (English, Harden see Theoretical perspectives)	**Negotiating complexity and uncertainty**	Re-evaluating why I do this job, reflexion, identity Bite-sized chunks e.g. how I break bad news

Parallels with student burden/ clinical burden Overwhelming Remembering that no one else has previously succeeded Honesty & trustworthiness (Laboskey) Keeping it operationalizable Keeping the 'soft' skills at the fore e.g. professionalism Trying not to be critical of others' practice Reconciling, sense-making Deciphering the formal, informal, hidden curriculum 'complexity medicine'		'Deciphering chaos'; 'chaos reveals itself just below the surface, and gets more obvious the deeper I dig' 'Anarchy on the VLE' 'Moodle is a jungle' 'I can only do what I can do' Less is more Schön's 'swampy lowlands' 'Keeping it scholarly' Assessment for learning Knowledge package to pass May ignore 'apprenticeship' Knowledge for practice vs knowledge in practice
Why have a curriculum map? Wicked problem, unmappable; meeting metrics? Fit for purpose? Curation 'Dynamic curriculum review' Containing ambition, 'glory' Fatigue/ compassion fatigue Sustainability Map as springboard Linkage, Coherence Weaving a story Not a static project, Iterate, evolve	**Building future and legacy**	'mapping for mapping's sake' Parallels/ mirrors with IFS and views on reflection. (tick-box, artificial) Keeping the patient or 'citizen' at the core Short term; students, faculty Long term; patients, society, citizens 'Evolution but also revolution'

Appendix 6: Anonymous comment from Unitu, the real-time student feedback platform (secondary data)



Appendix 7: MBBS Student Survey

Institute of Education

Survey for UCL MBBS Curriculum Map

We would be grateful for your participation in this anonymous 5-minute survey, which asks for your opinions on how you find the Curriculum Map which was published in August 2019. We would like to understand whether/ how you are using it to aid your learning and assessment. We will be asking for more in-depth views via focus groups in the coming months. We are happy to take questions or suggestions at any time at medsch-curriculum@ucl.ac.uk

Thank you for shaping how UCLMS students learn.
Dr Faye Gishen – Academic Lead for Curriculum Mapping

Definitions

- An **Intended Learning Outcome** (ILO) describes what students should know or be able to do. ILOs support the MBBS aims and reflect the topics and skills that students should know by the end of each module. SMART ILOs - specific, measurable, achievable, realistic and timely.
- A **Core Condition** is a key medical condition with associated epidemiology, aetiology & pathogenesis, presentation, investigation, diagnosis & management (including medicines and other management modalities).
- **Core Presentations** can be signs, symptoms or abnormal investigation results.
- **Sign-off Requirements** are summative events that a student must complete or attain to progress.

Q1) Which year of the MBBS programme are you in?
Q2) How often have you used the map since publication?
(never, monthly, weekly, daily)

Q3) How important are the map's ILOs to your learning?

1 = Not at all important 4 = Very important

Q4) How useful do you find the CM?

Q5) How satisfied are you with the CM?

Q6) Does the content match your learning?

Q7) Do you use the CM for learning about professional skills & behaviours?

Q8) How do you find the appearance and structure of the CM?

Q9) How important are the following features of the map to your learning?

1 = Not at all important 4 = Very important

a) Core Conditions
b) Core Presentations
c) Sign-off Requirements
d) Monitoring progress for the module/year
e) Making revision notes
f) Uploading files and links to resources
g) Linking content to horizontal modules
h) Linking content to CPP modules
i) Linking content to other years
j) Linking content to GMC requirements (*Outcomes for Graduates*, 2018)

Q10) Do you use the map on the following devices? (tick as many as applicable)

(Tablet e.g iPad, Samsung, Laptop or computer, Smart phone Other (please specify))

Q 11) Do you have any comments or suggested improvements about the map? (FREE TEXT)

Appendix 8: Participant Information Sheet

Institute of Education

Participant Information Sheet

Critically reflecting on curriculum mapping at UCL Medical School

November 2019

I'd like to invite you to take part in a research project we are conducting into the UCL MBBS Curriculum Map.

Who is conducting the research?

My name is Dr Faye Gishen and I am a consultant physician and the Associate Head of the MBBS. I work with the curriculum mapping team; Dr Katie Wardle, Tor Wright and Taylor Bennie. I hope that you will take part in a focus group. This information sheet will try and answer questions you might have about the mapping project, but please contact us if there is anything else you would like to know at medsch-curriculum@ucl.ac.uk

Why am I doing this research?

I am investigating how the 'Curriculum Map' (CM) has been received by students since it was published in September 2019. My goal is to inform how the CM can best be presented and used to help medical students with their learning and assessment.

What will happen if you choose to take part?

I am recruiting a mixture of medical students from different years with an interest in discussing how the CM has functioned so far. Focus group will take place at a central UCL location and will be audio-recorded. The group will begin by outlining the project, defining the aims and outlining instructions for participants. You will then be asked several predetermined questions about your views on the

curriculum map. When transcribed your answers will be anonymous and won't be attributed to you.

Examples of questions that you may be asked are;

Were you involved in pre-publication focus groups or testing?

Is the CM what you expected?

What are your thoughts on the published curriculum map?

How might the map be tweaked and why?

What advantages do you see with the curriculum map?

What challenges do you see with the curriculum map?

Is there anything else that you would like to add?

Depending on how the conversation develops, there may be some additional related questions. The answers that you give will be thematically analysed to allow the commonly occurring themes to emerge.

Will anyone know I have been involved?

This is a confidential study and details of participants will not be made public nor included in the write up of the research for peer-reviewed publications. When I write up this research as part of my Doctor in Education (EdD), I may use quotations, but they will be anonymous. Your personal details will be protected by ensuring your identity is not revealed in any potential peer-reviewed publication.

Could there be problems for me if I take part?

We are unlikely to be discussing any sensitive issues, but if you are upset or affected by anything we discuss or feel uncomfortable at any point of the focus group, you are entitled to stop at any point, either resuming after a break, or not at all. We can give you details of support options should this need arise. As a participant, you need to know that your answers are confidential, transcribed anonymously and never passed to another party.

What will happen to the results of the research?

I will seek your consent on the attached consent form to use your anonymised data in published articles or presentations at academic conferences. Let me know if this is not the case, ideally before the focus group. The focus group data will be stored on an encrypted memory stick, transcribed and transcribed data will be securely stored.

Notice

The controller for this project will be University College London (UCL). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data, and can be contacted at data-protection@ucl.ac.uk. This 'local' privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information can be found in the 'general' privacy notice. For participants in research studies, click here. The information that is required to be provided to participants under data protection legislation (GDPR and DPA 2018) is provided across both the 'local' and 'general' privacy notices.

It is entirely up to you whether or not you choose to take part. I hope that if you do choose to be involved, you will find it a valuable experience.

We will go through and sign the consent form when we meet for the focus group and attach a blank version for your information.

This project has been reviewed and approved by the UCL IOE Research Ethics Committee.

Thank you for taking the time to read this information sheet.

Appendix 9: Consent Form

Institute of Education

Consent form for Focus Group participation;

Critically reflecting on curriculum mapping at UCL Medical School

November 2019

I confirm that I have read and understood the information sheet, and have had the opportunity to consider the information, ask questions, and have had these questions adequately answered. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐

I know that I can refuse to answer any or all of the questions and that I can withdraw from the focus group at any point. ☐

I agree for the focus group to be recorded, and that recordings will be kept secure and destroyed at the end of the project. I know that all data will be kept under the terms of the General Data Protection Regulation (GDPR). ☐

I agree that small direct quotes may be used in a report and that my name and identity will not be revealed. ☐

I understand that the findings from my interview may be written up as an academic paper for publication or shared in a presentation at a conference and that my name and identity will not be revealed. ☐

I understand that in exceptional circumstances anonymity and confidentiality would have to be broken, for example, if it was felt that practice was risking safety, or there were concerns regarding professional misconduct. ☐

Name:.....
Signature: ..... Date: .....

Name of researcher:.....
Signature: ..... Date: .....

Appendix 10: Focus Group Schedule

Post-Mapping Focus Group Question Schedule

Opener/ Overall impressions

- **What do you think about the curriculum map?**
    - Is it what you expected?
    - What are the advantages of the curriculum map?
    - What are the disadvantages of the curriculum map?
    - How do you find navigating the map?
- **What do you perceive the purpose of the map to be?**

Functionality

- **What do you use the map for?**
    - What features do you use within the curriculum map?

(e.g. monitor progress e.g. flag/complete, make notes, upload files, create tags, search for items)

- **Do you use the map for learning about professional attitudes and behaviours?**

Links to OfG

- In the previous survey, most students said they would like to see links to Outcomes for graduates, 2018. Would you like to see this within the map?
    - ***? have example on iPad/printout

Future

- Would you like to receive communications about any changes to the map?
    - If yes – how, e.g. Moodle page, email, within the map

(Year 4/5, additional question)

- How would you like the Year 6 map to be presented?
    - *E.g. would you like to see a dedicated Year 6 map or be referred to years 4 and 5?*