Research Summary

In what ways may a concept of Social Accountability affect curriculum development in medical school

Comparing two schools; Queen Mary University of London (United Kingdom), and Curtin University (Australia)

Word Count (excluding references) – 2,998

Queen Mary University of London

Curtin University

Background & Aims

The concept of holding physicians responsible to become advocates of the community was introduced in medical education in 1995, where Charles Boelen and the World Health Organisation developed the term "Social Accountability" (Boelen and Heck, 1995). This led to a shared understanding of this concept across medical schools worldwide, and introduced a drive towards developing graduates able to fulfil WHO's definition of social accountability. Major guidelines have arisen in the early 2010s, gathering the knowledge of experts in medical education internationally, to give medical schools direction regarding how this objective may be achieved (Global Consensus for Social Accountability, 2010; ASPIRE, 2018; Rourke, 2013; Larkins, 2013). Despite these efforts, they do not account for the implications of operationalising such recommendations in local communities, nor identify barriers influencing the implementation of socially accountable strategies in medical education.

The purpose of this study focuses on exploring two questions:

1) What explicit initiatives have been implemented in the curriculum of schools desiring to respond to health and social problems of the local population, to materialise the theoretical principles of social accountability into effective educational strategies?
2) What barriers relevant to their respective local context were encountered, affecting the successful implementation of social accountability initiatives in their curriculum?

The objective of this study stems from the concern that the successful implementation of social accountability in medical schools depends on medical schools' capacity to incorporate this vision created by international bodies by articulating educational programs that respond to the unique health needs of the

local population which each school is serving, as well as account for the factors hindering their achievement (Leigh-Hunt, 2015; Rourke, 2006).

Literature Review

Following the landmark paper written by Boelen, several international organisations published frameworks to help medical schools assess whether their curriculum met Boelen's conceptualisation of social accountability. Most notably, the "Global Consensus for Social Accountability of Medical Schools" (GCSA) gathered the expertise of leaders in medical education globally, to generate a set of recommendations with the objective to give schools a clear indication of the scope and implications of a socially accountable curriculum; these are summarised in *Table 1*.

Strategies extracted from the GCSA study
Anticipating society's needs
Partnering with the health system and other stakeholders
Adapting to the evolving roles of doctors and health professionals
Fostering outcome-based education
Creating responsive and responsible governance of the medical school
Refining the scope of standards for education, research and service delivery
Supporting continuous quality improvement in education, research and service delivery
Establishing mandated mechanisms for accreditation
Balancing global principles with context specificity
Defining the role of society

Table 1: Ten recommendations on social accountability in medical education published by the *Global Consensus for Social Accountability* (Global Consensus for Social Accountability, 2010)

Building upon this, an organisation called “ASPIRE” reviewed the literature to produce criteria for schools to adopt in order to be viewed as “socially accountable” (ASPIRE, 2018). These criteria were piloted with eleven schools worldwide, establishing the first accreditation board focusing on social accountability in 2013, with ten accredited medical schools for “Excellence in Social Accountability” (ASPIRE, 2018). Despite the contribution of these two international guidelines, there is a gap in the literature limiting the capacity for any medical school to implement and operationalise these recommendations. Shortage of data on medical schools’ initiatives addressing the social accountability values outlined by these guidelines introduces the potential for schools to lack evidence on the successful implementation of general principles into community-specific programs.

Another limitation to the operationalisation of these guidelines is the shortage of data exploring the barriers encountered when adapting international recommendations into community-specific strategies to produce a curriculum structured around their respective communities’ health needs. To our knowledge, there are two qualitative studies investigating the experiences of academic leaders in schools who have positioned social accountability as a central theme of their curriculum vision, assessing the obstacles encountered when designing a socially accountable medical curriculum (Leigh-Hunt et al., 2015; Reddy et al., 2013), illustrated in Figure 2. However, the current literature remains insufficient, requiring further studies exploring the experiences of medical schools in different geographical contexts regarding the barriers encountered, to provide a stronger indication of the challenges faced by socially accountable medical schools.

Common barriers associated with social accountability in medical schools	
Political aspects	- Established accreditation processes are not focused on social accountability. - Social accountability is often not viewed as a primary objective to a medical school's mission. - Primary healthcare is poorly valued, associated with lower financial and working conditions compared to specialty care.
Societal aspects	- Academic prestige is often determined by results rankings, potentially affected by widening participation. - Regardless of social accountability strategies, different working conditions between high and middle-income countries remains a barrier to retaining qualified graduates in the local community.
Professional aspects	- Difficulty of developing metrics to review the progress of the school, as well as student assessment tools. - Curriculum possibly providing a narrower range of clinical competencies.

Table 2: Table gathering the findings of the two existing studies investigating the challenges encountered during the implementation of social accountability principles in medical education (Leigh-Hunt et al., 2015; Reddy et al., 2013).

Methodology

Recruitment & Sampling

Two medical schools aiming to enact social accountability measures were recruited; *Queen Mary University of London* in East London (QMUL); and *Curtin University of Medicine* in Perth, Western Australia. These institutions were selected due to their recent or undergoing curriculum development, as well as their interest in social accountability in medical education. Contrasting two schools that are geographically and culturally separated would shed light on shared barriers encountered as a result of implementing social accountability principles to the local community.

Recruitment of participants (four participants; two from each medical school) was achieved using non-probability sampling, allowing the selection of the most appropriate of participants on the basis of their involvement in the most recent curriculum development process (Tansey, 2007), in order to get the best representation of the committee's views during the design of the medical school's curriculum.

Data collection & Analysis

"Social Accountability" Template

A literature review was carried out on PubMed and SCOPUS databases to explore the published guidelines on social accountability in medical education, yielding two international guidelines providing recommendations for medical schools aspiring to become socially accountable – *the GCSA* and *ASPIRE-to*

excellence in Social Accountability. These two documents were analysed using template analysis, providing a framework of themes to be used for data analysis of the medical school's curriculum documents (see Figure 1); six comprehensive themes focusing on the school's responsibilities to enact its principles in their local environment were extracted.

Curriculum document analysis

55 documents pertaining to curriculum development (26 from Curtin university; 29 from QMUL) were sent electronically by each school. Each document collected was analysed via thematic analysis using the themes generated by the template analysis (Figure 1) as a coding system; explicit statements addressing the template's themes were extracted, producing a template including evidence present in each school's curriculum documents regarding the strategies implemented to address each social accountability principle.

Senior staff interviews

Four senior staff members were selected for semi-structured interviews. An Interview topic guide was generated from the themes extracted during the curriculum document thematic analysis. Anonymised verbatim transcripts were developed by the researchers. Thematic analysis generated codes and themes for each medical school, generating a thematic map for each school (Appendix A and B); challenges encountered by the interviewees during the implementation of social accountability principles were tabulated (Table 3 and 4).

Template Analysis

1. Clear understanding of social accountability
    - 1.1. Community needs guiding the school's curriculum & teaching delivery
    - 1.2. Partnership with accrediting institutions to define principles of social accountability adopted

2. Scope of social accountability
    - 2.1. Need for liaison between all levels of policy-enactment
    - 2.2. Enrichment of the existing standards in medical education
        - 2.2.1. Through coordinated educational programs
        - 2.2.2. Through a dedicated school governance
        - 2.2.3. Through consideration of environmental impact

3. Sustainable partnerships between those involved in implementation of measures
    - 3.1 Explicit mention of stakeholders involved in curriculum development
    - 3.2 Explicit mention of stakeholders involved in teaching practice

4. Identification of the desired outcomes of graduates
    - 4.1. Attention to the career paths of graduates
        - 4.1.1. Importance of producing a balance of specialties
        - 4.1.2. Commitment to Primary Healthcare
    - 4.2 Focus on knowledge and skills specific to the local community
        - 4.2.1. Education of students to be highly active in local population health

5. Fostering knowledge acquisition that is integrated and applied to the local community
    - 5.1. Objective to educate students on Professionalism values (ethics, leadership, cultural boundaries)
    - 5.2. Emphasis on early and continual community-based learning
        - 5.2.1. Mission to encourage lifelong learning
        - 5.2.2. Setting up student-selected modules and research opportunities
    - 5.3 Objective to educate students on interprofessional education

6. School dedicated to the successful implementation of social accountability measures
    - 6.1. Commitment to a socially reflective recruitment of students
        - 6.1.1. Explicit efforts to facilitate recruitment of students from local community
    - 6.2 Consideration of desired impact of measures
    - 6.3 Implementation of social accountability principles in student assessment

Figure 1: Template generated from the thematic analysis of the *Global Consensus for Social Accountability* and *ASPIRE-to-excellence* guidelines, outlining the shared recommendations and principles outlined in both documents

Results

Curtin University – Overall findings

Curtin's curriculum made an explicit commitment to community-oriented medical education, through clear definition of the targeted population as the Indigenous and rural communities; identification of the unmet needs and determination of local medical and social concerns as central features.

The curriculum structure reflected this mission via establishment of three inter-related themes addressing social accountability, integrated across the 5-year course focusing on "Clinical Practice"; "Health and Illness in Society"; "Professional Development". Cultural competency was highlighted in graduate outcomes and mission statements, with the materialisation of explicit educational strategies to fulfil this objective, at the centre of which early community-based teaching was located.

Queen Mary, University of London – Overall findings

A clear mission of QMUL was to adapt their curriculum to a heavily-integrated course providing early community-based teaching opportunities, at the heart of which the "Medicine in Society" module was located, and continued through a combination of didactic teaching and clinical placements with explicit objectives to expose students to local patients and public health.

An explicit commitment to improve the education of local students in East London was clear in the curriculum mission and enacted through a student admissions process comprising of a separate access pathway for students from widening participation and socio-economically disadvantaged backgrounds in the local population with lower academic requirements.

"Comparing & Contrasting" QMUL and Curtin University

Both institutions highlighted "community needs" as central features of their mandate, recognising the importance of producing graduate capable of advocating for continually changing local health needs. In addition, community-based learning and interprofessional education were key initiatives in the two curricula. Evidence of this enactment was demonstrated equally by both institutions, by adopting a curriculum rich in early and diverse clinical exposure as well as engaging the local community in educational programs throughout the five-year course.

Neither school published an explicit "Social Accountability" statement or evidence of accreditation from regulating boards with an explicit focus on social accountability. This was reflected in the omission of certain principles, and in the varied degree of enactment achieved in several social accountability principles between the two medical schools. Most importantly, both schools failed to demonstrate assessment strategies designed to ensure that students have acquired the desired competencies related to social accountability values.

Curtin university distinguished itself from QMUL's curriculum in several domains of social accountability, mainly by making primary healthcare a central focus of their vision for graduates as a result of recognising *"the need for more doctors to be generalists"*, and strengthening their admission strategy by prioritising student selection from rural and Indigenous backgrounds as well as implementing enabling courses for those who fail to reach the required entry grades.

QMUL's curriculum established a range of student-selected modules, with explicit goals to allow students to explore medicine through an array of local clinical placements, with learning objectives related to interprofessional education and primary healthcare; which is a strategy rarely used in Curtin's curriculum.

Interview analysis: Curtin University

196 codes were extracted from Curtin University interviews, generating five themes regarding their viewpoints on the extent to which Curtin's curriculum implemented social accountability principles into their mission, initiatives and governance (see thematic map in Appendix A).

Curtin's curriculum was perceived as deeply rooted in the local community, accounting of the health needs of local under-serviced groups, namely the Indigenous population and rural communities. Evidence was outlined by the fact that the school's "raison-d'être" originated from extensive community-engagement prior to building the medical school, investigating the unmet needs within the population of Western Australia, and the ways that this university would make a long-term improvement in this community, being rural health; Indigenous health; aged care and mental health care. Interviewees positioned the Senior Citizenship Program at the heart of this mission to meet these defined needs, demonstrating the school's receptivity to existing health concerns.

An explicit mission involved selecting students reflective of the local community, through establishment of academic and financial incentives for those students, as well as continual student support throughout the course. This initiative formed part of a collaborative effort between the medical school, host

university and national bodies to align on community-oriented strategies, which was perceived as a strong determinant of the success of the socially accountable mission implemented in this curriculum.

Challenges encountered throughout the foundation and operationalisation of the school are illustrated in Table 3.

	Challenges faced when implementing socially accountable initiatives in the curriculum
Prior to the foundation of the school	- Political opposition to the foundation of a new school - National and regional accreditation process is long and strenuous.
Related to the process of curriculum design	- National accrediting boards do not always align with the school's commitment to local unmet need. - National curriculum allowing limited time for local community-specific initiatives to be implemented. - Difficult to recruit academics from under-serviced communities, due to the shortage of existing profiles
Related to the operationalisation of initiatives	- Internal student opposition of admission process - Difficulties to recruit local and students from target communities in a new and relatively unknown school.

Table 3: Challenges encountered by senior staff at Curtin University during the implementation of social accountability principles in their curriculum.

Interview analysis: Queen Mary, University of London

189 codes were extracted from QMUL interviews, yielding seven themes regarding the extent to which social accountability measures were implemented (see thematic map in Appendix B).

The perception was that patient-centred care was at the core of the curriculum, with a strong alignment between the medical school, host university and national regulating board to target initiatives focusing on early and continuous community-based teaching. Integration of clinical placements has been introduced in the early years with "Medicine in Society" module representing strong evidence of the successful enactment of the community-oriented mandate of the school.

An additional satisfaction was the establishment of a student admissions process actively engaging students from a wide diversity of background, evidenced by the implementation of separate access pathways for students from widening participation, and highlighting the importance of the timely outreach projects carried out in targeted local communities. Faculty members conceded that there was no explicit commitment or established quotas for students originating from the local community of East London.

Challenges raised when introducing social accountability principles to QMUL's curriculum, divided into three categories, is shown in Table 4.

	Challenges faced when implementing socially accountable initiatives in the curriculum
Related to the concept of social accountability in medical education	- Principles of social accountability are vast; difficult to implement every principle in one curriculum. - A curriculum exclusively designed for the local community may affect academic prestige and student applications to the school.
Related to the process of curriculum design	- National regulating body imposing criteria, limiting the opportunities for community-specific strategies. - Difficulties encountered when targeting health needs in communities that are constantly evolving. - Themes of social accountability are generally not perceived as being as important to learn from student bodies.
Related to the operationalisation of initiatives	- Principles of social accountability can be difficult to effectively assess in student assessment. - Community fatigue encountered due to the high turnover of students in local health organisations.

Table 4: Challenges encountered by senior staff at Queen Mary, University of London (QMUL) during the implementation of social accountability principles in their curriculum.

Discussion & Conclusion

Interpretation of findings

Study findings show that QMUL and Curtin have made an explicit commitment to community-based education with active efforts to contextualise the teaching content to community health, accounting for local socio-demographic factors specific to the community they are directly serving. Both schools provided evidence that most recommendations published by the *GCSA* and *ASPIRE-to-Excellence* guidelines were accounted for to varying degrees. It can therefore be induced that QMUL and Curtin university have demonstrated successful enactment of social accountability, despite the disparate geographical and cultural contexts in which the schools are located.

A viewpoint shared amongst all interviewees was that the most effective way for a medical school to have a long-term impact on the local population is through retaining their graduates in the local community; the most significant strategy enacted by both schools was to establish a student admissions system targeting the recruitment of students from local and disadvantaged backgrounds. Both curricula explicitly stated separate access pathways with lower academic requirements to encourage application from these targeted communities. Both schools outlined numerous early outreach programs to encourage a career in medicine to disadvantaged students early in their education, as well as support systems established throughout their progress. This mission is in concordance with the report published by the General Medical Council evaluating the effectiveness of widening participation measures in UK medical schools (Cleland et al. 2012), concluding that encouraging application from disadvantaged communities at the point of university entry is too late, indicating that the educational inequalities occur early in education and therefore

universities have responsibilities to bridge this inequality through outreach programs targeting these communities at an earlier stage, and providing a support system for those students throughout medical school.

The absence of an explicit social accountability statement or accreditation from social accountability boards by either school raises an interesting concern introduced in Charles Boelen (Boelen, 2016), highlighting that a school's commitment to community-based education does not automatically correlate with a strong marker of social accountability. Instead, schools must explicitly target the current local community health and social concerns, coupled with evidence of active and sustainable partnerships with local parties in both curriculum design and teaching delivery in order to be truly considered socially accountable. By this standard, Curtin university's curriculum have clearly addressed Boelen's criteria as our document analysis show evidence that Curtin has targeted specific underserviced local communities, and explicit pledged to address the health and social needs of these communities as a priority. QMUL's curriculum, however, made no explicit commitment to the local community or initiatives targeting a specific local health need in the local population. Therefore, this study highlights that both schools omitted several social accountability principles due to the absence of an explicit social accountability statement; in the future, schools desiring to become socially accountable must publish such statement to ensure that social accountability values are comprehensively addressed in their curriculum.

Challenges encountered by Curtin university and QMUL were multi-factorial, many of which were experienced in both schools despite the extremely different geographical and cultural environments, suggesting that these challenges were associated with the implementation of social accountability values regardless of the local context. A major barrier encountered was related to the mal-alignment

between the school's commitment to their local community and the criteria set by national regulating boards which require a significant amount of curriculum space to address, limiting the opportunities for strategies designed specifically for local community needs. This potential mis-alignment was introduced by Boelen as a limitation to the successful implementation of social accountability in medical education, creating a phenomenon where a balance must be found between a socially accountable school addressing local health needs and the obligation to ensure that graduates have acquired the essential knowledge to practice safely across the country following graduation:

> *"Quality improvement in medical education and evaluation standards to address social accountability must be revisited and national accreditation mechanisms established accordingly". (Boelen, 2011)*

In conclusion, this study provides insights into the obstacles faced by medical schools designing and implementing a socially accountable curriculum, and encourages further study that helps schools anticipate the barriers related to operationalising a curriculum that satisfies Boelen's definition of social accountability, as well as recommendations made by *the GCSA* and *ASPIRE-to-Excellence*.

Reflection on Personal Development:

This intercalation project represented my first experience of research in medical education, which developed into an extraordinary adventure. “Social accountability” and “curriculum development” were foreign terms to me prior to this project, but were concept that have always been embedded in my medical career and undoubtedly influenced my development as a future doctor. From a philosophical perspective, this project has transformed my view on the roles of medical students as simple apprentices, now understanding the need for students to actively seek learning opportunities from local communities that are the most underserviced, instead of learning a broad curriculum that may not help the patients we have done a medical course to serve.

Being allowed to take charge of an international-scale project has increased my confidence and interest in medical research. Prior to this project, I had completed several low-impact studies and believed that the small responsibilities given to me where due to my low experience in research; I am now confident in designing future projects, widening my experience in qualitative studies which I personally find more exciting to complete.

The most challenging aspect of this project, and paradoxically the most exciting, was the amount of responsibility given to me to collect data, interviewing senior staff members from my university as well as a university on the other side of the planet. I discovered two things about myself and medical education that I will carry with me until the end of my medical journey. Firstly, I was amazed at the interest and dedication shown by faculty members at the

highest rank of both medical schools on the issue of continually revising their medical curriculum, ensuring that graduates are well-equipped to treat patients in the local community. Before this project, I believed that all schools had a similar curriculum, because there were only so many ways to teach students how to treat a human body. I have now been introduced to the complexities of medical education, which I will continue to explore by undertaking another international project next academic year to deepen my new interest in encouraging more students from low socio-economic backgrounds to apply and succeed at medical school.

I will continue to explore the skills acquired in this project, to carry these qualities until the end of my medical school career and beyond. I am now considering applying to the Academic Foundation Programme to pursue a career oriented towards medical education. Medical education and qualitative research are aspects of medicine that should be more advertised and encouraged in students' school journey, and I am grateful to have been offered an opportunity to continue to discover this side of medicine.

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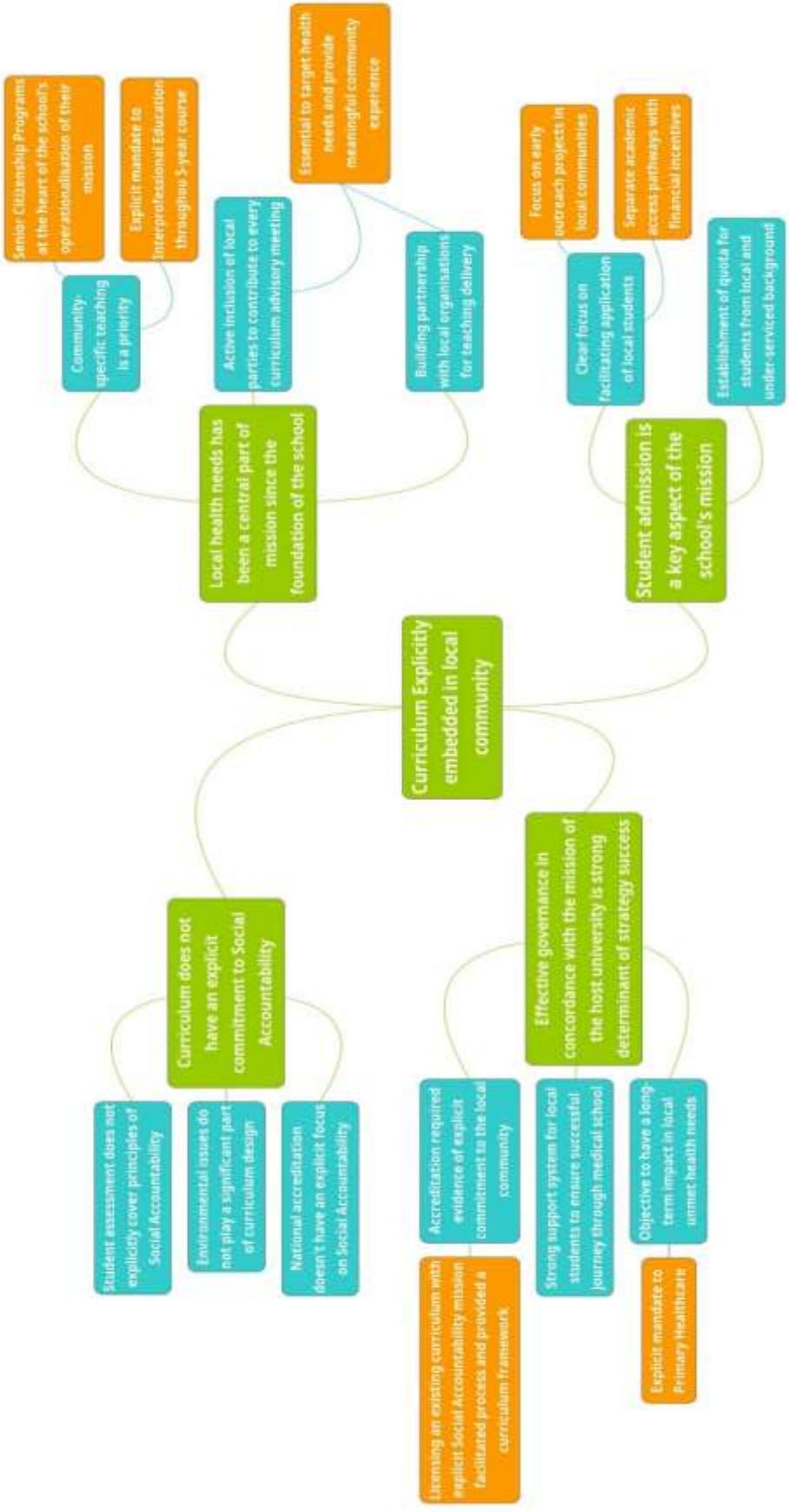
Appendix

Appendix A

Interview Analysis Thematic Map (Curtin)



Appendix B

Interview Analysis Thematic Analysis (QMUL)