Undergraduate Teaching and Institutional Strategies of World-Class Universities in China, the United Kingdom, and Canada: The Case of Engineering

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Declaration

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

Abstract

Until recently, research universities did not treat teaching as a priority. Scholars have identified two reasons for this: first, universities' responsibility to serve the public interest and to deliver social benefits in their role as public goods, and second, the growing competition for students in higher education marketplaces. However, there may be additional reasons which apply to varying degrees in different countries. In addition, higher education institutions have become more managerial and strategic to face the challenges of resource allocation for various missions and stakeholders. However, there is little empirical evidence proving the value of these approaches when applied in practice.

This research investigates how undergraduate teaching quality is strategically addressed in so-called world-class universities, and how it is conceptualised in regard to both the managerial logic embedded in strategy development and the academic logic underpinning approaches to undergraduate teaching. It draws upon Lave and Wenger's (1991) concept of 'community of practice' as an overarching framework to explore how world-class universities address undergraduate teaching and to interpret how faculty members perceive and respond to institutional decisions.

The research design is founded on a comparative case study between leading Chinese, British, and Canadian universities, reflecting on continental, national, institutional, and disciplinary similarities and differences. Data was collected through strategic documents and interviews with academics (n = 56), leadership staff (n = 21), and administrative staff (n = 15) involved with undergraduate teaching in engineering faculties.

Three main themes are identified: the use of communities of practice as a strategic device, the contested idea of student-centred learning, and the evolution of academic career structures, including implications for the teaching

and research nexus. The Canadian case represents a more recognisable model of strategised undergraduate teaching quality through standardised approaches, the British example is identified as a traditional academic model involving managerial pressure, while the Chinese case exemplifies a model where teaching is emphasised at a strategic level, whereas research is emphasised more heavily in practice.

Keywords: World-class University, Institutional Strategy, Undergraduate Teaching, Community of Practice

Impact Statement

This research can provide value for all stakeholders of higher education sectors to understand management and undergraduate education in global research universities. The emphasis is on academics' and their leaders' perceptions of institutional strategy and their practices of undergraduate teaching. The research elaborates on the explicit and implicit intentions of the case study universities to cultivate communities of practice for enhancing undergraduate education. In particular, it explains the career path of teaching-only academics and interaction with other academic and professional staff for undergraduate teaching. In addition, the research presents empirical evidence on teaching and research nexus in research-intensive universities.

In this research, I engaged senior management of universities, academics and administrative staff in three universities in China, the United Kingdom, and Canada. University leaders from these institutions are all keen for me to share my findings both to improve their internal management and to understand how universities operate in other countries. Academics want to know my research findings to better understand career development and the development of undergraduate teaching from a global perspective. Administrative staff either value the research for providing a comprehensive picture of higher education from an academic perspective or are interested in knowing more possible directions to work on as administrators. In addition, there are staff who have the responsibility for supporting academics from a curriculum and pedagogic perspective. They enthusiastically hope that my research findings can raise the awareness of their job and further standardise such a career track. In addition, my work may also prompt further actions in the investigated universities (and beyond) including considering how institutional strategy is communicated throughout the organisation – and possibly how communities of practice can feed into the development processes of undergraduate teaching in the future.

For wider participants, this research has been shared with scholars in various conferences, including the Society for Research into Higher Education (SEHE) annual conference 202, Association for the Study of Higher Education (ASHE) annual conference 2022, the European Higher Education Society annual conference 2021, the European Conference on Educational Research annual conference 2021, the Chinese Educational Research Association annual conference 2021, Society for Research into Higher Education (SRHE) annual conference 2019, Consortium of Higher Education Researcher (CHER) 32nd Annual Conference 2019, and the 6th Summer School on Higher Education 2019. My presentation has led to discussions and debates on managerial logic and academic logic in higher education, particularly on the impact of management approach on teaching and learning practices. In addition, academics find the practicality in my research methodology, which can be referred to in their studies for comparing different regions and countries.

I am particularly interested in the communities of practice in higher education, and I have drafted a systematic review on this topic a widely recognised journal. In addition, the comparison of national policies and higher education systems in China, the United Kingdom and Canada would be further elaborated and published.

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Chapter 1 Introduction

1.1 Research Context

Higher education is experiencing widespread massification (Teichler, 1998; Shin & Toutkoushian, 2011). By the end of the 20th century, this increase in higher education massification has significantly expanded access and participation in higher education on a global scale (Trow, 1973; Altbach, 1999). Additionally, higher education has become more marketised, introducing tuition fees and the concept of ‘student as consumer’ (Oplatka & Hemsley-Brown, 2010; Bunce et al., 2017). In such an environment, universities compete for students, teachers, donors and social support (Skelton, 2005; Shin & Toutkoushian, 2011). Consequently, many have changed their ideas of how teaching should be understood and conducted (McMillan & Cheney, 1996).

Higher education has become the main driver in the development of the knowledge economy, which many scholars describe as a system of consumption and production based on intellectual capital (Olssen & Peters, 2005; Marginson, 2010; Guruz, 2011). Higher education fosters the economic development of nations and provides career opportunities for individuals (Marginson, 2010). In addition, universities are sources of innovation and are considered able to contribute to economic development and welfare provision (Etzkowitz et al., 2000; Shane, 2004; National Research Council, Merrill & Mazza, 2011). Though some studies question correlations between education and economic development (Brown et al., 2010; McGrath, 2010), higher education is being nourished on the global stage through high-level internationalisation and increasing student mobility (Knight, 2003, 2008; Altbach & Knight, 2007; Marginson, 2011; De Wit & Merkx, 2012; De Wit, 2017). Universities worldwide are competing for students and resources in the global higher education marketplace (Salmi & Liu, 2011).

In this context, the emergence of the ‘world-class university’ has generated much debate from political, managerial, and academic perspectives. According to the World Bank, world-class universities are defined as research or elite universities that play a critical role in training professionals, high-level specialists, scientists, and researchers. World-class universities generate knowledge in support of national economies and innovation systems (Salmi, 2009) through a high standard of teaching, research, and service. Meanwhile, global rankings emerged, which accelerate and enhance the discussion of the world-class university by presenting quantitative and numerical information that attracts the attention of various stakeholders in higher education (Hazelkorn, 2009, 2015). The concept of a world-class university is contested and has not been comprehensively defined or discussed from an academic perspective. Moreover, the global ranking systems overlook the importance of teaching in universities by only measuring the quantity and quality of research delivered by policymakers and institutional managers.

To face the increasing challenge of resource allocation for an expanding variety of missions and stakeholders (Skelton, 2005; Stensaker et al., 2017), two important observations were made regarding the current state of higher education. First, higher education institutions have begun to prioritise organisational effectiveness (Shin, 2011) in order to better face the challenges of resource allocation for various missions and stakeholders (Skelton, 2005; Stensaker et al., 2017). As a result, higher education institutions have become more managerial and strategic (Skelton, 2005). One of the manifestations of this priority is the increased formulation and implementation of strategic documents (Fraser, 2004; Skelton, 2005; Stensaker et al., 2017).

Second, providing good quality of teaching and learning has become more important (Shin, 2011) in response to the expectation for higher education as a

public good for societal development (Marginson, 2011), and rapid growth of participation and increased competition in higher education markets (Giannakis & Bullivant, 2016). As a result, policymakers at national, local and institutional levels have established quality assurance schemes to address the teaching quality in mass higher education (Elias & Purcell, 2004; Scott, 2005; Skolnik, 2010; Shin, 2011).

By combining these two trends—the increasing use of strategy and the increasing attention to quality in world-class universities—this research aims to investigate **how institutional strategy addresses undergraduate teaching quality in world-class universities**. Specifically, this research focuses on the undergraduate teaching of engineering programmes. As one of the STEM subjects, engineering has recognisable and measurable value in developing the knowledge economy. Empirically, the high demand for this discipline means institutions allocate significant resources to these programmes, and more research information can be collected when doing the fieldwork.

This research used three case studies, one each from China, the United Kingdom (UK) and Canada, to effectively represent mainstream higher education systems in a global context. I selected research-intensive public universities that were highly ranked (top 100) by mainstream global ranking systems (QS, Academic Ranking of World Universities, and Times Higher Education). Data sources included strategic documents (corporate strategy and teaching and learning strategy) and interviews with faculty, department leaders, and academic and administrative staff.

1.2 Definition of Concepts

So far, I have illustrated the current global context of higher education, including

massification, marketisation, the development of the concept of a world-class university and the impact of global rankings. Under such influences, universities are prioritising strategies that allow them to stand out in the worldwide market. Meanwhile, to attract students, teaching quality is increasingly important for both universities and governments. Global ranking parameters tend to reward research-intensive coursework; as a result, most world-class universities emphasise teaching related to research. In the following paragraphs, I define the key concepts and working definitions I use in my research.

1.2.1 Institutional Strategy

'Strategy' has a long history of development and is widely applied across diverse research fields, especially in management studies, though it has been disregarded in higher education studies until recent years (Fumasoli, 2011). It can be interpreted through different perspectives to explain diverse circumstances and fit different purposes.

In this research, I refer to Mintzberg's (1978) idea that strategy is both deliberate planning as well as emergent patterns of decisions and actions over time. In other words, strategy is rational but also context and time contingent. This idea fits my research design because strategic plans are a critical starting point; from there, I investigate institutional strategy as an overarching frame for the vision, mission, and values of the university (Ozdem, 2011; Fumasoli et al., 2015; Morphew et al., 2018). Moreover, this study aims to understand the responses to strategic plans from stakeholders involved in undergraduate teaching at selected universities, and then I look into the 'pattern' that emerges from the field (Mintzberg, 2007).

1.2.2 Teaching Quality

As previously established, teaching quality is vital to the success of higher education institutions. It is widely recognised that teaching involves much more than what happens in a classroom. Teaching is oriented towards and related to high-quality student learning, which involves planning, compatibility with context, content knowledge, being a learner, and above all, the way of thinking about teaching and learning (Trigwell, 2011). Moreover, teaching is currently the subject to strategies relating to national and institutional dimensions (i.e. quality assurance scheme of teaching, teaching quality policy, and teaching and learning strategy).

In this study, 'teaching' is defined from the teacher's perspective to investigate their perception of activities that facilitate understanding, impart information, transmit structured knowledge, bring about conceptual change, optimise teacher-student interactions (Kember, 1997, p. 62) and support student learning (Samuelowicz & Bain, 1992, pp. 106-107; Chalmers & Fuller, 1996, p. 9) in undergraduate education.

Teaching quality is a contextualised concept for different systems and institutions. In this research, I refer to the term 'excellence' in explaining and analysing teaching quality. Although the phrase 'teaching excellence' is used widely in government publications and academic reviews, it is mostly considered 'a political tool for change in higher education' (French, 2017). However, quality teaching has academic value through shaping curriculum and pedagogy in practice, and this research aims to investigate more of its academic value. Therefore, this research has additional value in defining teaching quality in the real context.

1.2.3 Teaching and Research Nexus

Excellence, as a dynamic concept, can be interpreted and evaluated in different contexts. In world-class universities where research is intensive, excellence can be defined and informed by the latest research findings and scholarship (Skelton, 2005; Stensaker et al., 2017). As a result, understanding the teaching and research nexus is also significant in this study.

The first understanding of the relationship between teaching and research comes from the Humboldtian system of higher education (Schimank & Winnes, 2000), in which the primary role of education was to select and train the next generation of academics (Stensaker et al., 2017). Now that teaching and research are more associated with imparting skills in critical thinking, analytical reasoning, and exercising independent judgement in the knowledge society (Stensaker et al., 2017), the understanding of this relationship has shifted. In research-intensive universities, applying the model of 'research-based' teaching is more common. In this research, I reference both traditional and modern interpretations to more fully understand the nexus of teaching and research in world-class universities.

1.2.4 Community of Practice for Higher Education

A community of practice is a 'group of people who share a concern, a set of problems, or a passion about topics, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis' (Wenger et al., 2002, p. 4). Large organisations like universities need to coordinate aspects of their activities. A spectrum of shared practice—linking and managing activities across the boundaries of different communities of practice—is thus developed and maintained (Geertsema et al., 2017).

In *Situated Learning: Legitimate Peripheral Participation*, Lave and Wenger (1991) discussed adopting a conceptual framework of communities of practice in higher education studies. They primarily argued for transitioning from a traditional concept of workplace learning toward a constructivist perspective in which meanings are exchanged and discussed by community members as they interact socially and establish identities (Hanson, 2009; Houghton et al., 2015). The community of practice model highlights how members of academic communities learn from each other through interaction and engagement from the standpoint of professional development in higher education (Akerson et al., 2009; Buckley, 2012).

In this study, enhancing teaching quality is considered a common goal for the institution. The community of practice is the analytical framework that links managerial logic and academic logic in world-class universities. Within this framework, I investigate how institutional strategies are utilised and influence the community of practice for enhancing undergraduate teaching.

1.3 Research Questions

To investigate how institutional strategy addresses teaching quality in world-class universities, I ask the following questions:

- How do institutional strategies in world-class universities address undergraduate teaching?
- How do institutional strategies affect lecturers in undergraduate teaching in world-class universities?
- What are the implications for the teaching and research nexus in world-class universities?

Higher education systems are diverse in different regions. Therefore, this

research is designed to investigate more than one system of higher education in order to present more information on the research topic and demonstrate the similarities and differences among different systems. I selected institutions in China, the UK, and Canada because in those countries systems of higher education are widely adopted and institutions matriculate significant numbers of students (including international students). As such, they can provide the reference value for world-class universities with wider influences.

To gather data for this study, I used document analysis and semi-structured interviews. I analysed documents detailing institutional strategies from three selected universities, including overarching development strategies of the university, education strategies, and faculty strategies. I interviewed academics, faculty and departmental leaders, and administrators of undergraduate engineering programmes. For the case study in China, I interviewed 28 academics (including 6 leaders) and 4 administrative staff; in the UK I interviewed 26 academics (including 8 leaders) and 4 administrative staff; and in Canada, I interviewed 23 academics (including 7 leaders) and 7 administrative staff. In sum, the number of participants for the interview was 92, including 77 academics (of which 21 are leaders) and 15 administrative staff.

This research was based upon inductive reasoning – making broad generalisations from specific observations and drawing conclusions from the data (Thomas, 2006). Given the lack of a previously established framework of analysis for how institutional strategy is understood and interpreted regarding the quality of undergraduate teaching, this research seeks to address a gap in the existing studies. The research data is analysed through thematic analysis to present detailed findings.

1.4 Contributions

Regarding the existing literature and the research gap in the studies of institutional strategy and teaching quality of undergraduates, I list the main contribution of this research from the theoretical, conceptual and empirical perspectives.

Theoretically, even though there were studies applying and analysing strategy in higher education institutions (see, e.g. Trowler, 2002; Jenkins & Healey, 2005; Pittaway & Hannon, 2008; Frølich et al.,2010; Fumasoli, 2011; Hazelkorn et al., 2014; Neary et al., 2014; Stensaker et al., 2017; Soliman et al., 2019; García-Peñalvo, 2021), this research has the value of providing a theoretical framework of how institutional strategy is interpreted by university staff, especially in world-class universities. Moreover, this qualitative exploratory research contributes to theories of how universities adopt communities of practice and integrate managerial and academic logic in higher education.

Conceptually, this study examines concepts and definitions included in global ranking criteria for world-class universities. In the existing literature, designations of world-class universities and their classification by global rankings systems are still vague and often reference one another in circular definitions. In this research, I provide clear contextualisation of these concepts and illustrate the relationship between the two from a wider academic perspective.

Empirically, this research examines and presents rich, detailed data on how academic and non-academic staff at world-class universities perceive and react to institutional strategy, particularly as it relates to the teaching of undergraduate students. Moreover, as a comparative study that presents findings from China, the UK, and Canada, it provides empirical evidence from

three continents. By forming a shared data foundation, the different systems can learn from each other and potentially support further collaborations on institutional structures and management of undergraduate teaching.

1.5 Structure of Chapters

In Chapter 1, I described how world-class universities are increasing managerial practices in response to massification. The managerial practices tend to emphasise and value research, informed, as they are, by global rankings systems. However, global rankings fail to consistently rate or address the quality of teaching in world-class universities. This study seeks to examine that gap.

Chapter 2 is devoted to the literature review. I first discuss the definition and debate surrounding world-class universities and their relationship to global rankings systems. I look at managerial logic in higher education (from the perspective of new public management) and academic logic concerning undergraduate teaching, followed by a discussion of teaching quality. The concept of quality is illustrated from a teaching perspective to understand how academic practices have become increasingly managed. In the last section, I review past interactions and conflicts between managerial logic and academic logic and define the research gap this study addresses.

In *Chapter 3 Research Questions and Analytical Framework*, I first list the research question and formulate the analytical framework. I then examine the interactions between managerialism and academic logic in higher education. The managerial logic is understood through institutional strategies as rational instruments and the academic logic is interpreted through communities of practice as social contexts.

In *Chapter 4 Research Contexts and National Backgrounds*, I discuss the historical background and context of higher education in China, the UK, and Canada. The chapter elaborates on each country's policy overview, funding structure, teaching quality, and national systems for improving undergraduate education.

Chapter 5, Methodology, establishes the criteria for selecting the three case studies (world-class universities in China, the UK and Canada, ranked top 100 in ARWU ranking, QS ranking and TIMES ranking), outlines the methods for data collection, including documentary analysis and semi-structured interviews. The value of document analysis is that it provides both a global and national context of higher education and institutional strategic decisions on the development of undergraduate teaching. The documents included government policy papers, national and regional initiatives, the university's corporate strategy on overall development, and educational strategy on undergraduate teaching in particular. The participants in the interviews were faculty and departmental leaders, administrative staff of undergraduate teaching programmes and academics who teach undergraduates. The strategies were applied with documentary analysis with the focus on what universities claim to do for enhancing the undergraduate teaching and the interviews were applied with thematic analysis emphasising how university staff perceive the strategic decisions.

Chapter 6 Case Studies: Findings from Chinese, British and Canadian Universities presents the findings from each case study. It primarily covers findings of the university context, the institutional strategy of resourcing teaching, and interview analysis of academics' awareness, attitude and recognition and response to the institutional strategies.

Chapter 7 The Comparison of Case Studies follows with an emphasis on the similarities and differences between the institutions' strategies for developing teaching, as well as how academics perceive and respond to the strategic decisions in world-class universities. In addition, this chapter provides perceptions and understanding of ‘world-class university’ from university staff across the globe.

In *Chapter 8 Community of Practice: Institutional Strategy and Undergraduate Teaching*, I group the findings and discuss how communities of practice are utilised by world-class universities to enhance undergraduate teaching through institutional strategies in China, the UK and Canada. This research first analysed strategic documents to present how universities implicitly and explicitly address communities of practice for undergraduate education and then the interviews on how academic and professional staff interpret the strategic decisions in practice. The primary findings and discussions are that universities are applying student-centred learning as the guiding value for improving undergraduate teaching, cultivating sub-communities including academic, professional, and leadership positions, and employing practices including teacher training and collaboration. In this chapter, I present the implications for the teaching and research nexus in world-class universities.

Chapter 9 Conclusion summarises the answers to the research questions and proposes further implications of the findings. I consider how world-class universities are perceived, how the management of academic practice can be applied in higher education, and what universities can do to cultivate a community of practice to enhance undergraduate education. Finally, I suggest recommendations for further studies.

Chapter 2 Literature Review

In recent years, the concept of higher education has undergone several modifications and transformations with various foci (Wedlin, 2008). Some scholars appear to be enthusiasts of the new ‘globalised’ ‘knowledge economy’ and the central role universities are said to play in it (Wenger et al., 2002; Altbach et al., 2019). Given the external environment of globalisation and marketisation, universities have to compete to attract students, obtain research funds, and increase other types of revenue (i.e. fundraising activities) on a global scale. Scholars have spoken about the marketisation of universities in describing the adoption of managerial logic and practices by universities (Parker, 2002, 2011). Moreover, higher education as a public good (Calhoun, 2006; Marginson, 2011) receives funding from governments and must show ‘the value of money’ by emphasising the effectiveness and efficiency of the institutions. Nevertheless, universities remain responsible for serving the public interest as public goods by achieving their goals related to education, research (both theoretical and applied) and knowledge dissemination processes (Guarini et al., 2020). As a result, the primary concern is how the emerging managerial logic may influence the traditional academic values and practices of higher education institutions.

This research aims to investigate how the increasing managerial practices of world-class universities, which emphasise research and are guided by global rankings, address undergraduate teaching. In the following sections, I first explain the concept of world-class universities and their relationship with global rankings. Then, I elaborate on the managerial logic in higher education, followed by a discussion of academic logic with a focus on undergraduate teaching. In addition, as one of the concepts stimulated by managerial ideas, quality is reviewed from a teaching perspective to understand how academic practices have become increasingly managed. The last section presents the

interaction and conflicts between managerial logic and academic logic and identifies the research gap that is addressed in this research.

2.1 World-Class Universities

The concept of the knowledge economy defines knowledge as the creation, distribution and use of knowledge that ensures economic growth and a country's international competitiveness (Hadad, 2017). With the growing popularity of this concept, governments across the world have begun to implement policies promoting higher education (Fairweather, 2000; Olssen & Peters, 2005; Marginson, 2010; Guruz, 2011). One core function of higher education is building globally competitive economies by developing a skilled, productive and flexible labour force and creating, applying and spreading new ideas and technologies (Salmi & Liu, 2011).

Institutions are increasingly challenged by scarce resources and involved in an intense national and international competition framed by the discourses and policies around world-class universities driven by the growing influence of university rankings (Hazelkorn, 2015; Carpentier, 2021). Though some scholars criticise the idea that higher education and the so-called 'world-class university' can generate the knowledge that is decisive and dominates the economy (see, e.g. Wright & Shore, 2017), generally, researchers have focused on investigating what a world-class university is and what it means for higher education since the early 2000s (Deem et al., 2008). With the widespread and increasing impact of global university rankings, governments have become more supportive of establishing world-class universities, and universities are adopting and applying such concepts and their corresponding criteria to their practice. However, the so-called world-class university has not been comprehensively discussed academically, and the application of such an idea

to undergraduate teaching remains understudied. In the following two sections, I explain how world-class universities are concerned and how this is linked to the role and position of global rankings.

2.1.1 A Contested Concept in Higher Education Studies

Originally, the idea of the world-class university referred to the German Humboldtian research university, whose core concept was the unity of teaching and research (Altbach, 2011) and which came to dominate academia at the end of the 19th century, especially when the United States, Japan and other developed countries began to accept this model of the research university (Altbach, 2004). Research universities are sometimes called 'flagship universities', a term signifying that they provide leadership to the rest of the academic system (Douglass, 2016). More recently, the world-class university has become an object of China's concern in relation to its national capacity and competitiveness in knowledge innovation and high-quality production (Li, 2005).

The rise of the idea of world-class universities reflects the general understanding that knowledge increasingly drives economic growth and global competitiveness, and universities play a key role in this context (Salmi, 2009). Nevertheless, the exponential growth of world-class universities over the past two decades is also because the newly emerged idea of world-class universities provides opportunities for new companies to enter the education industry and create a profit by collecting and selling information (Robertson, 2012). Therefore, constructing so-called world-class universities is not only limited to higher education institutions but also includes other stakeholders, for example, national and international organisations, governments, media and publishers (Locke & Bennion, 2011).

The World Bank (Salmi, 2009) defined world-class universities as research or elite universities playing a critical role in training professionals, high-level specialists, scientists, and researchers who generate knowledge in support of national economies and innovation systems. Based on recent research, the definition of a world-class university seems equivalent to the concept of a research university with a global scope and an overwhelming focus on research output (Mok, 2012). In a more practical sense, the World Bank considers world-class universities the higher education institutions that ought to significantly contribute to the advancement of knowledge through research, teaching and the production of successful graduates (Salmi & Liu, 2011). Furthermore, Salmi and Liu (2011) differentiated between world-class universities and national and local institutions in that world-class universities have a moral obligation to contribute to human development as a whole, though some scholars argue that higher education institutions start from the local community and have regional obligations (see, e.g. Harloe & Perry, 2004; Jongbloed et al., 2008). To summarise, several components define the widely recognised world-class university, as shown in Figure 1.

Figure 1. Aspects of the World-Class University

(Adapted from Altbach, 2004; Salmi, 2009; Shin, 2013; Douglass, 2016)

Referring to the figure above, in addition to visions and contributions to humanity as a whole, high-quality human resources, and adequate physical and financial resources, world-class universities include both teaching excellence and research excellence. In other words, teaching should not be ignored within global research-intensive universities.

Though there are various descriptions for world-class universities, whether they accurately gauge the value and social impact of the best universities remains unclear (Douglass, 2016). Existing studies on the concept of a world-class university have two shortcomings. First, the idea of a world-class university is more likely to be treated as a political strand or discourse (Rider et al., 2020; Barnett, 2021) rather than a term with academic value for differentiating higher education. It is a catchy slogan or expectation representing ‘excellence’ in every sense of the higher education system, instead of being a working definition or holding practical value for the development of higher education. To deconstruct the notion of a world-class university, one requires more empirical evidence to relate it to teaching and research practice. Moreover, Barnett (2021) claimed that ‘world-class university’ is not even a concept but simply a term that lacks any conceptual substance, writing,

> It has nothing to say about the relationship between the university and culture, between the university and the state, between the university and the development of mind or persons, and still even less—if that were possible—about the relationship between the university and spirit’ (Barnett, 2021, p. 277).

According to Barnett (2021), unlike the categorisation of higher education institutions into groups like public universities, private universities, or community colleges, the term ‘world-class university’ has no categorising meaning for higher education institutions. The term can only have conceptual value if it revolves around the relationship between the university and the world

(Barnett, 2021).

However, even though the concept of a world-class university has not yet been comprehensively illustrated, governments aim to establish world-class universities, which is reflected in their educational policies and attempts at influencing strategy at the university level (Zhou, 2004; Hazelkorn, 2009; Liu et al., 2011). Nevertheless, over-emphasising the attainment of world-class status may harm individual universities or academic systems (Altbach, 2003). It may focus too much on building research-oriented institutions at the expense of expanding student access or serving national needs. It may also set up unrealistic expectations that harm faculty morale and performance (Altbach, 2003). Certainly, the idea of a world-class university reflects the norms and values of the world's dominant research-oriented academic institutions (Altbach, 2003), but it must be understood contextually and provide theoretical, conceptual and empirical value for higher education studies.

2.1.2 Global Rankings

Along with the increasing use of the term world-class university, the use of global rankings has become a worldwide phenomenon. In an era of globalisation and the massification of higher education, global comparisons of higher education have become increasingly important in the goals and policies of national governments (Marginson, 2007) as universities compete for students, teachers, donors and social support (Shin & Toutkoushian, 2011; Teichler, 2011).

The emergence of global rankings has provided entry points and spaces for a range of new actors and projects to enter the higher education sector (Robertson, 2012). In addition, global rankings attract attention from university

management and guide institutional practice. However, what is significant about these global ranking systems is that they take fragments, or partial understandings, of knowledge and experience about complex education processes and present them as fractals or smaller versions of a whole (Robertson, 2012). In other words, the global ranking systems have a certain level of discrepancy with the idea of a world-class university, which covers teaching and research obligations. Moreover, the quantitative methods for analysing universities run the risk of ignoring teaching quality.

Teaching is a complex activity that cannot be standardised or quantified as research achievements. One of the difficulties of evaluating teaching is comparing ‘across diverse countries, institutions, and students and evaluating the quality of the learning environment and learning gain rather than the status or reputation of the institution’ (Altbach & Hazelkorn, 2018, pp. 12–14). Furthermore, teaching quality is fundamentally an institutional attribute, with teaching quality differing within, rather than between, institutions (Fassett & McCormick, 2022).

The ranking systems tend not to deeply investigate teaching quality. Therefore, despite the claim that rankings present how well universities are researched and rated, the rankings do not comprehensively cover all aspects of academic practice. In the following paragraphs, I first explain the relationship between world-class universities and global rankings, and then illustrate mainstream rankings in relation to teaching.

Since the 1990s, surveys have emerged as a means of evaluating and ranking universities with a more systematic approach than by reputation (Shin, 2011). Despite their relatively short history, global rankings have obtained ‘a kind of iconic status’ (Altbach, 2012, p. 27) among various stakeholders. They were not designed for a specific stakeholder group but for a broader audience that

engages in higher education in various ways (Federkeil net al., 2012). Students need rankings to choose where to study, academics to know where to work, university leaders to know where they stand, and governments to know where and how to invest (Clarke, 2007; Marginson, 2007; Sadlak & Liu, 2007; Liu & Cheng, 2011; Shehatta & Mahmood, 2016; Estera & Shahjahan, 2019).

The empirical studies on the topic mostly address how to use rankings to one's advantage or examine the sources and effects of current practices (Rider et al., 2020). In other words, rankings drive how universities set their priorities. However, Hazelkorn's (2011) study criticised that the influence of rankings shows no sign of abating, nor does the impetus to provide practical proposals for how to use them to one's advantage or to examine the sources and effects of the practices involved.

Although comparing higher education institutions is not a new phenomenon, the first widely recognised ranking was the Academic Ranking of World Universities (hereafter ARWU or Shanghai Ranking), which was launched by the Centre for World-Class Universities of Jiao Tong University in 2003. Since 2009, ARWU has been annually published and copyrighted by Shanghai Ranking Consultancy, an organisation focusing on higher education, which is not legally subordinated to any universities or government agencies[1]. In 2004, the Times Higher Education World University Ranking (hereafter THE ranking) appeared, a product of THE's cooperation with Quacquarelli–Symonds (QS) (known as the THE-QS ranking), which lasted until 2009. The methodology and presentation of rankings have become more sophisticated, and there have been attempts to develop external validation. THE is now audited by the accounting firm PricewaterhouseCoopers (PwC). It is a 'limited assurance engagement' that is concerned with the correct application of THE's procedures

[1] http://www.shanghairanking.com/about-arwu

and accepts third-party data at face value (Holmes, 2021: 128). QS has been audited by the International Ranking Expert Group. It should be noted that QS is a member of the International Ranking Expert Group, and, therefore, this might not be regarded as a truly independent audit (Holmes, 2021). Hauptman Komotar's (2019) study comprehensively listed the methodological design and approaches to the data from 2017–2018, updated here with the latest 2021–2022 information from ARWU, THE and QS rankings.

	Categories	Metrics	Weight
ARWU 2021	Quality of education	Alumni of an institution winning Nobel Prizes and Fields Medals	10%
	Quality of faculty staff	Staff of an institution winning Nobel Prizes and Fields Medals (20%) Highly cited researchers in 21 broad subject categories (20%)	40%
	Research output	Papers published in *Nature* and *Science* (20%) Papers indexed in *Science Citation Index Expanded* (SCIE) and *Social Science Citation Index* (SSCI) (20%)	40%
	Per capita performance	Per capita academic performance of an institution	10%
THE 2021	Teaching	Reputation survey (15%) Staff-to-student ratio (4.5%) Doctorate-to-bachelor's ratio (2.25%) Doctorates-awarded-to-academic-staff ratio (6%) Institutional income (2.25%)	30%
	Research	Reputation survey (18%) Research income (6%) Research productivity (6%)	30%
	Citations	Research influence	30%
	International outlook	International-to-domestic-student ratio (2.5%) International-to-domestic-staff ratio (2.5%) International collaboration (2.5%)	7.5%

	Industry income	Knowledge transfer	2.5%
QS 2022	Academic reputation	Academic reputation from Global Survey	40%
	Employer reputation	Employer reputation from Global Survey	10%
	Faculty/student ratio	Faculty-student ratio	20%
	Citations per faculty	Citations per faculty from Scopus	20%
	International faculty ratio	Proportion of international faculty	5%
	International student ratio	Proportion of international students	5%

Table 1. Indicators of ARWU Ranking, THE Ranking, and QS ranking

Source: ARWU (2021); THE (2021); QS (2022)

The overall idea of university rankings is to provide a systematic way to assess higher education institutions (Salmi & Liu, 2011). The selected rankings vary in their methodological designs, hence, in their use of specific categories and performance indicators that constitute each category (Hauptman Komotar, 2019). In ARWU, research performance is dominant. Though there are criteria related to education and faculty, the assessment is evaluated by research achievement and awards. In THE, research remains dominant but is not limited to academic value; it also considers economic and industrial value. This ranking includes the internationalisation of higher education. As for QS, reputation and internationalisation are the core elements, and the perspective is more focused on the faculty members and students.

The categories are not all the same across rankings, but research-related indicators generally weigh more than teaching-related indicators. According to these most prominent global university rankings, the dominant model is certainly the research-intensive university (Marginson, 2012). This dominance

of research does not fit the description of a world-class university in which both teaching and research must be excellent. Moreover, the original goal of university rankings was to assess the institutional quality and provide information to students and parents making choices about which college to attend (Shin, 2011). However, the indicators of the rankings do not live up to offering greater transparency and reliable decision-making bases for students. Rather, they lend spurious objectivity to the ranking processes (Rider et al., 2020).

Thus, using the standard of world-class universities to guide teaching practices becomes more problematic when universities increasingly rely on global ranking systems. There is a direct correlation between the emergence of international university rankings and the pervasive rhetoric and obsession with world-class university status (Douglass, 2016). In many studies, world-class university qualifications and global rankings are considered equal. However, no clear explanation distinguish the two ideas, which shares a circular logic. In other words, world-class universities are the ones that appear higher in the global rankings (Altbach, 2003), while the definition of the ranking system is a hierarchy of world-class universities (Stella & Woodhouse, 2006).

However, the previous section on the descriptions of world-class universities and the indicators of rankings shows that these two ideas are not the same. World-class universities must consider the same demands as other higher education institutions but also achieve a higher standard (Lanarés, 2011). Moreover, the idea of world-class universities is more politically driven, while scholars argue that rankings display the branding and marketing considerations that have mainly been developed by the media (Shin & Toutkoushian, 2011). Such commercial use can lead to misleading results (De Maret, 2007). Certainly, the two perspectives share some academic value that explains or illustrates how a university can develop, but they do not seem to have the same purpose

or function, especially regarding the positioning of teaching.

Hazelkorn's (2008) study showed that the visions, performance measurement systems and policy goals of both national governments and institutions have quickly adopted rankings and metrics. Despite concerns about rankings as a tool for measuring the quality of a university, many institutional leaders often rely on rankings to inform their policymaking (Shin & Toutkoushian, 2011). Owing to the increasing use of rankings in institutional strategies, global university rankings thus influence higher education in various ways (Douglass, 2016). Among all changes, some universities alter the balance between teaching and research to prioritise research achievements (Hazelkorn, 2015) because research funding, publications, citations and faculty awards become highly visible and measurable while teaching is not (Ramirez & Meyer, 2013). On the one hand, research productivity is always easier to calculate than teaching quality. On the other hand, research outputs can have a stronger impact on disciplinary and global reputation and are main criteria defining higher education internationalisation.

Scholars criticise this status quo because of the questionable validity and credibility of ranking systems and the limitation of performance indicators (Hazelkorn, 2015). Teaching is the essential mission of most universities, but rankings focus overwhelmingly on research and research-related activities (Hazelkorn & Mihut, 2021). Instead of improving diversity or competitiveness, rankings lead some institutions to obsess about numbers and indicators, which largely ignore teaching.

In the latest book edited by Hazelkorn and Mihut (2021), researchers examined the evolution and evaluation of rankings and their worldwide impact. They concluded that global rankings triggered a reaction from policymakers in policy and political statements, student and stakeholder behaviour, institutional

decision-making, and commentators and researchers. Given the fact that university rankings have become an important benchmark for global competitiveness, the standards and indicators designated by ranking systems have not only impacted national policymaking and institutional behaviours but also reshaped higher education systems (Hazelkorn, 2019). Yet, global rankings have also brought much scepticism about whether they can accurately evaluate the quality of universities and their academic performance. Much literature highlights that there are several reasons to uphold global rankings, but it is evident that these global ranking systems have common methodological limitations and create a paradox of the pursuit of academic excellence and mission inconsistencies in universities. Existing studies reflect significantly more on institutional efforts to adapt to ranking-system criteria (see, e.g. Ehrenberg, 2000; Marginson, 2007). Institutions have made strategic changes and devoted resources to pursue increased prominence in the rankings (Mihut et al., 2016). However, institutional efforts to change the ranking systems' influence are less documented. The question is then how universities refer to the rankings to formulate and implement undergraduate teaching on an institutional and individual level.

2.2 Managerial Logic and Academic Logic of Higher Education

The concepts of world-class universities and global rankings are evolving rapidly and have been adopted by higher education institutions. Understanding how universities manage and guide undergraduate teaching in world-class universities first requires understanding the managerial and academic logic of higher education.

Universities were previously perceived as communities of scholars researching and teaching together in collegial ways (Deem, 1998). However, more

managerial concepts regarding organisational strategies, structures, technologies, management instruments and values have been borrowed from the private sector and applied to higher education in recent years (Aucoin, 1990; Deem, 1998; Milliken & Colohan, 2004). This trend comes with an intensified focus on visibility, transparency and measurability within the academic labour process (Reed, 2002) to better face challenges including budget constraints, accountability for quality, massification, and marketisation as a consequence of socioeconomic and political developments (Bryson, 2004). In particular, higher education is increasingly required to justify the expenditure of public funds and demonstrate its 'value for money' among the other resources it consumes (Reed, 2002). Universities are also being exhorted to raise the standards of educational provision and satisfy students by providing quality education (Deem, 1998). The following sections discuss the main elements of New Public Management in a higher education context and in relation to teaching practices in world-class universities.

2.2.1 New Public Management in Higher Education

University is commonly understood as a 'professional bureaucracy' (Mintzberg, 1979: 348) which relies on the standardisation of skills and the associated design parameters, training and indoctrination. Universities hire duly trained specialists (professionals) for the operating core of teaching and research and then give them considerable control over their work (Mintzberg, 1979). Based on Mintzberg's description, universities are led by academics. In other words, universities are not managed by a manager or chief executive who is specialised in management; they are run by academics who make their own choices concerning academic practices. These characteristics imply that the managerial concept cannot be easily applied in the higher education context. However, research shows that many universities have adopted managerial

ideas and practices, which has led to deliberate organisational and cultural changes (Deem & Brehony, 2005).

In the middle and late 1990s, the increasing use of traditional private sector corporate practices resulted in the rise of the New Public Management discourse (Hood, 1991; McLaughlin et al., 2002; Deem & Brehony, 2005) as a guiding framework for enhancing the efficiency of public services, including the higher education sector (Bleiklie, 1998; Ferlie et al., 2008, Lapuente & Van de Walle, 2020).

Hood (1991) listed seven doctrinal components of New Public Management, including (a) hands-on professional management in the public sector, (b) explicit standards and measures of performance, (c) greater emphasis on output controls, (d) a shift to the disaggregation of units in the public sector, (e) a shift to greater competition in the public sector, (f) stress on the private-sector style of management practice, and (g) stress on greater discipline and parsimony in resource use (Hood, 1991, pp. 4–5). To summarise, the key idea of New Public Management concentrates on ‘value for money’, which involves elements of the economy (doing things at the best price), efficiency (doing things the right way) and effectiveness (doing the right things) (Musselin & Andresani, 2008, p. 335).

To understand this management practice, the distinction between ‘hard’ and ‘soft’ managerialism (Trow, 1993) is first illustrated. Trow (1993) defined soft managerialism as the recognition of inefficiency and the invention of rational mechanisms to improve university performance, with the explicit agreement and consent of all those involved. Though this is not collegiality, it is not entirely incompatible with it. Hard managerialism, on the other hand, involves the imposition of discourses and techniques of reward and punishment on those employees who are considered fundamentally untrustworthy and thus

incapable of self-reform or change. In practice, it is not always a deliberate choice of applying ‘soft management’ or ‘hard management’ but depends on the university and the discipline (Thomson, 1998). In other words, different higher education institutions and disciplines have different cultures, which can lead to various preferences regarding types of management.

Taylor (2007) further analysed the response of institutional management by distinguishing between passive and active management. Passive management is essentially a non-interventionist approach, leaving the main responsibility of interpreting and delivering teaching and research to the individual academic faculty member. Active management involves a more proactive, interventionist approach to the development and assessment of the relationship between teaching and research (Taylor, 2007, p. 876). These contrasting styles of institutional management result from differences in the balance between ideological and environmental factors. An ideology is a set of core beliefs and essential rationale, and the dominance of ideological factors may lead to more passive management (Taylor, 2007). The dominance of ideological factors assumes and relies on the independence of academic staff in shaping the nature and interaction of their teaching and research. When academics are trusted to uphold the group’s ideology, the management style can consequently be non-threatening and non-inquisitorial. By contrast, the preponderance of environmental factors tends to lead to more active management. Pressure for increasing assessment, accountability and value for money, as well as the impact of competition and market forces, drive institutions to specialise in particular areas of activity (Taylor, 2007, p. 876). In practice, the increasing similarity of higher education institutions is most evident in management reforms, especially performance-based management. Widely evident in academic management, its performance indicators are at the core of government policy and institutional management (Shin, 2010).

Thus, to face external and internal changes more effectively and efficiently, higher education institutions now embrace more managerial concepts in their organisational structures. Despite critiques of management as a form of control that may reduce academic freedom by standardising the academic practice (Zhou, 2001; Hoecht, 2006), more institutional stakeholders have started to realise or even accept management (see, e.g. Kidwell et al., 2000; Birnbaum & Snowdon, 2003; Coates et al., 2005; Hladchenko, 2015; McCaffery, 2018; Marbun et al., 2020). However, academic practices are not always easy to measure. Moreover, how managerial ideas influence professional and academic values and practice is not clear. In the following sections, academic logic is illustrated with a focus on teaching, followed by a discussion of the interaction between managerial logic and academic logic.

2.2.2 Academic Logic: Undergraduate Education

The culture of the academic profession may differ across nations, disciplines, and institutional types (Clark, 1984, 1986; Austin, 1990). Academic logic is understood from the perspective of academic practice in this research. The practice of the research university, at its foundation, is rooted in its tripartite mission of research (the production of knowledge), teaching (the dissemination of knowledge), and service (both internal and to the community) (Austin, 1990), with research as the central focus (Martin, 2018). This study focuses on the teaching dimension of the academic logic of higher education in world-class universities.

- **Teaching and Learning**

Higher education institutions have the dominant functions of cultivating a qualified workforce, training students for a research career, managing the

provision of teaching efficiently and extending opportunities through teaching and relevant activities (Skelton, 2005). These institutions operate in a rapidly changing environment, reflected in their core functions of teaching and learning (Klemenčič & Ashwin, 2015). Higher education aims to impart information, transmit knowledge, facilitate learning, change students' conceptions and encourage knowledge creation (Samuelowicz & Bain, 2001). The generic activity of teaching encompasses course design, course management, teaching methods, provision of other learning opportunities, and assessment and feedback. In the university context, teaching is a scholarly activity that draws on extensive professional skills and practices, with high levels of disciplinary and other contextual expertise (Delvin & Samarawickrema, 2010).

Scholars defining the teaching mission of universities mainly focus on the process of transmitting knowledge. Empirically, Bótas (2008) defined teaching as an activity where someone engages physically (demonstration/coaching), verbally (dialogue/discussion) and/or intellectually (silent engagement) with others to develop a person's interests in learning. Teaching also relates to student learning (Samuelowicz & Bain, 1992) as the activities that facilitate understanding, impart information, transmit structured knowledge and bring about conceptual change (Kember, 1997).

There are two mainstream approaches to conceptualising teaching and learning: the learning and teaching perspective (Prosser & Trigwell, 1999; Richardson, 2005; Entwistle, 2007) and the social practice perspective (Lea & Street, 1998). The former indicates how students' and academics' perceptions of teaching and learning environments consistently relate to the quality of their learning and teaching and the quality of students' learning outcomes (Ashwin, 2009). The latter perspective provides insight into the impact that institutional and disciplinary contexts have on academics' understanding of teaching and the issues students face in understanding the cultural context of their

programmes (Trowler & Cooper, 2002). In this study, the social practice perspective is the primary focus, particularly concerning the institutional strategy and academics' perception of teaching and learning within their disciplines.

In recent years, the conceptions teachers hold about teaching and their approaches to teaching have been the focus of several studies on teaching quality (Postareff, 2007). Studies on the conceptions of teaching have distinguished between two contrasting conceptions emphasising either information transmission or conceptual change (Samuelowicz & Bain, 1992, 2001; Prosser et al., 1994; Kember, 1997; Kember & Kwan, 2000; Eley 2006).

Studies on teaching approaches have identified two broad categories: the student- and teacher-centred approaches. The student-centred approach, or learning-focused approach, is described as a way of teaching which sees teaching as facilitating the student's learning process. The teacher-centred approach, or content-focused approach, on the other hand, is described as a way of teaching in which students are considered passive recipients of information transmitted from the teachers to the students (see, e.g. Prosser & Trigwell, 1999; Kember & Kwan, 2000). The student-centred approach to teaching is more likely to be associated with higher-quality learning outcomes (Trigwell et al., 1999). Hence, higher education teachers face pressure to change their teaching practices to be more student-centred in nature (Vermunt & Verloop, 1999; Ramsden, 2003).

According to the existing studies, learning-focused and content-focused strategies can co-exist, while learning-focused and content-focused intentions or conceptions are much less compatible (Prosser & Trigwell, 1999; Kember & Kwan, 2000).

Since the 1980s, the argument that teaching in higher education should be a more professional activity has risen repeatedly and with increasing intensity, leading to the formalisation of staff development, support and measurement (Skelton, 2005). Teaching in higher education has thus increasingly become a professional activity operating within professional standards (Beaty, 2005; Ashwin, 2005). A growing notion across many institutions asserts that the development of teaching and learning in higher education must depend on systematic and sustained research on the effects of curriculum, pedagogy, technology and student learning approaches (Parpala et al., 2010). Teaching-and-learning-related research is an integral part of research universities' activities (Stensaker et al., 2017), which means that teaching can be scientifically researched and made more professional with universally adaptable suggestions. In a world-class university which emphasises research, it can be expected that undergraduate teaching is more standardised and structured with more scientific evidence. Therefore, academics can offer suggestions for the management of the institution and teaching practices, and the university can provide widely-accepted managerial practices for the academics. In other words, the managerial structure may not always be top-down in higher education institutions when it comes to teaching. On the one hand, disciplines are diverse in higher education, and each has its own methods for effective teaching and learning. Therefore, it is difficult to implement common strategies from senior management in all the pedagogies and curricula. Moreover, because of the disciplinary differences and high level of professionalism in higher education, academics are the most informed about their field of expertise, rather than management who are usually specialised in a few disciplines or administration and management. On the other hand, the bottom-up approach to teaching also allows students to be more engaged in the process; therefore, it provides teachers with a more comprehensive picture from the student's side and helps determine teaching priorities.

- **Teaching and Research**

In higher education institutions, especially in research-intensive universities, the dominance of research output is increasing, though teaching is the essential mission of most universities (Shin & Kehm, 2013; Hazelkorn & Mihut, 2021). How does this discrepancy affect undergraduate teaching? Theoretically, research can be a source of teaching, and teaching can illustrate research ideas. However, a key criticism of the teaching and research nexus is a lack of empirical evidence about the characteristics of the nexus in practice (Hattie & Marsh, 1996; Elken & Wollscheid, 2016; Tight, 2016; McKinley et al., 2021). The research on the nexus is often focused on individual practice or parts of institutions, with the result that its claims are necessarily limited. The existing studies indicate that universities with strong research priorities can jeopardise a strong nexus. Therefore, Hattie and Marsh (1996) concluded that teaching and research are, at best, loosely coupled when research is the institutional priority. For many scholars, though the teaching-research nexus may be thriving in the imagination of academics, in practice, it is fragile (McKinley et al., 2021).

Nonetheless, some scholars believe that the focus on research does not imply that research universities ignore their teaching responsibilities or educational mission (Marincovich, 2007) but rather that universities provide research-based pedagogical ideas throughout higher education (Stensaker et al., 2017). In other words, disciplinary research can provide more teaching material and inspire academics to create innovative teaching methods with a deeper understanding of their professions through conducting research. Moreover, researchers who are specialised in pedagogical studies in world-class universities may provide further suggestions for the teaching practice.

The relationship between teaching and research additionally impacts the nature of academic work and hence academic identity (Clark, 1987; Jenkins, 2000;

Neumann, 2001). In most disciplines, teaching is viewed as a generic activity that lies ‘on top of’ the ‘real’ academic work, namely research, and is ‘unconnected with the disciplinary community at the heart of being an academic’ (Neumann, 2001, p. 144). While research usually involves engagement with an academic community, teaching has been characterised as an individual private affair (Clark, 1987; Shulman & Hutchings, 1994).

Research in higher education has a complex definition. Colbeck (1998) showed that what counts as research affects the possibility of staff seeing a positive or negative relationship between teaching and research and possibly influences their motivation to forge such a nexus. The current notion of research in higher education institutions has developed from the reforms of German universities in the 19th century (Neumann, 1992; Elton, 2001) when the Humboldt model of higher education was introduced. In general, this entails considering disciplinary differences and highlights the wide and diverse range of research activities, and includes only the discovery of new knowledge, often with an emphasis on quantitative techniques (Neumann, 1996, 2001). The modern interpretation of research for college students relates to critical thinking, analytical reasoning and independent judgement in the knowledge society (Stensaker et al., 2017).

The first question to ask when examining the relationship between teaching and research is whether there is, in fact, a relationship. Scholars who advocate that there is no relationship between teaching and research have two main perspectives. First, research and teaching are different activities (Barnett, 1992). Indeed, numerous quantitative studies examining the correlation between research productivity and teaching effectiveness report little or no relationship (see, e.g. Hattie & Marsh, 1996; Robertson & Bond, 2005). Second, researchers and teachers play different roles (Linsky & Straus, 1975; Barnett, 1992; Rowland, 1996). Researchers hold that experiencing good teachers does

not necessarily relate to students' research performance, and vice versa (Elton, 2001).

However, more studies support the existence of a relationship, though there is conflict regarding whether the relationship is positive or negative, complementary or competitive. Scholars who support the complementary relationship between teaching and research argue that the two activities enhance each other (Rowland, 1999). Integrating research into the teaching curriculum is a good way of clarifying research concepts and making their wider implications explicit (Garnett & Holmes, 1995). Glew (1992) indicated that research can transform the teaching and learning experience. For teachers, it creates confidence, promotes self-esteem and releases motivating power during class contact. In addition, it provides a framework for developing a range of teaching and learning inputs, including up-to-date teaching material and research-related projects and workshops. Moreover, it often provides opportunities for staff to remain in touch with industry and practice, and thereby better understand the requirements and pressures of world affairs.

A contrasting view is that teaching and research have a competitive relationship. Because of academics' scarcity of time, energy and commitment (Moses, 1990; Neumann, 1996), research and teaching are more likely to interfere with each other than enhance each other (Linsky & Straus, 1975; Faia, 1976). However, controversy arises around how the time and energy spent on research relates to teaching effectiveness. For example, Hattie and Marsh (1996) asked whether an hour of research is equal to an hour of teaching. Apart from the limitations on time, energy and commitment, research and teaching have conflicting functions (Clark, 1986; Fox, 1992; Butlin, 1999). The aspects of knowledge that research and teaching engage in are distinctively different in their respective cultures and social structures (Baker, 1986).

Neumann's (1992) research posited three levels of connection between teaching and research. The tangible connection refers to the transmission of advanced knowledge and the most recent facts, and the intangible connection relates to students' development of an approach and attitude towards knowledge that provides a stimulating and rejuvenating milieu for academics. The global connection describes the interaction between teaching and research at the departmental level. In general, the intangible nexus is stronger in the earlier undergraduate years, with the tangible nexus increasing in significance for senior undergraduates and the honours year. The benefits of active researchers teaching students are cumulative. In the global view, the nexus exists at all undergraduate levels since departmental research activity shapes the teaching offerings (Neumann, 1992).

Connecting teaching and research at the undergraduate level has also become central to the student-centred model of learning (Ramsden, 2003). This is conventionally justified as a useful approach to preparing students for the knowledge society (Scott, 2006), as well as for developing qualities of professional expertise among undergraduates (Brew, 2006; Neary & Hagyard, 2010). Furthermore, linking teaching and research in the undergraduate curriculum is seen to potentially enable students to develop their problem-solving and coping skills for a complex world (Barnett, 2006).

To relate teaching and research in practice, Griffiths (2004) illustrated several approaches to preparing to teach. The first is research-led, in which students learn about research findings, staff or current disciplinary research interests can dominate the curriculum content, and some or much of the teaching may emphasise information transmission. The second is research-oriented, in which students learn about research processes, the curriculum emphasises the processes that produce knowledge as well as the knowledge achieved, and staff try to engender a research ethos through their teaching. Finally, in the

research-based approach, students learn as researchers, the curriculum is largely designed around enquiry-based activities, and the division of roles between teacher and student is minimised. Healey (2005) identified the fourth category, ‘research-tutored’, in which students learn about research findings in small group discussions with a teacher.

Over the last two decades, some governments have recommended the adaptation of the research-led approach to university education through policy documents (see, e.g. 12th Five-Year Plan (2012) for National Educational Development from the Ministry of Education of the People’s Republic of China; Notice of the State Council on Issuing the Overall Plan for Co-ordinately Advancing the Construction of World First-Class Universities and First-Class Disciplines in 2015). In addition, many research universities have claimed that the teaching and learning in their undergraduate programmes are research-led (Healey, 2005). Advocates for research-based education have publicised many examples of passive research involvement, with undergraduates learning about the content and lived experience of research (Grindie et al., 2021). Institutions and individuals can construct the teaching and research nexus in various ways from three dimensions of emphasis: research content or research processes, treating students as audience or participants and teacher-focused or student-focused teaching (Healey, 2005). In a study conducted by Lindsay, Breen and Jenkins (2002), both undergraduate and postgraduate students were found to associate more benefits than disadvantages with lecturer research. Undergraduates do not see themselves as stakeholders in academic research, however, which is the opposite of the postgraduate students’ responses. Most research has clarified the importance of integrating teaching and research, especially for undergraduate learning. However, whether research-based learning is necessary for all students in higher education remains unclear (Henkel, 2004; Kogan, 2004). More empirical evidence is required to prove whether research-based teaching is the most appropriate direction for

undergraduate teaching.

The teaching and research nexus can be very different in various disciplines (Becher, 1987; Rowland, 1996; Neumann, 2001; Jenkins & Zetter, 2008) because the nature of knowledge construction and research methods differ between disciplines, and disciplines often act as distinct academic tribes (Becher & Trowler, 2001) or communities of practice (Lave & Wenger, 1991). In some disciplines, particularly the hard sciences, research and scholarship may differ in nature and status (Becher, 1994). By contrast, in the humanities, the boundaries between research and scholarship may be limited or even disputed (Jenkins et al., 2008). In some professional disciplines like engineering (Al-Jumailly & Stonyer, 2000), academics may have strong orientations and institutional requirements. In addition, students are instructed to understand the research basis of professional practice in such a curriculum (Jenkins et al., 2003). Each discipline has its own knowledge paradigm that determines the appropriate approach to a research problem (Neumann, 1992).

In summary, the teaching and research nexus is important for the development of higher education, partly because of its implications for higher education structure and resources and partly because of its intrinsic importance in helping define higher education, especially the role of the university. More importantly, the nature of the relationship influences the quality of university education (Chiang, 2004). Many institutional mission statements enshrine the close interconnection and interdependence between teaching and research, and universities must set the improvement of the nexus as a mission goal (Jenkins et al., 2003). The relationship is inevitable in understanding how undergraduate teaching is designed in world-class universities. On the one hand, research-intensive universities dominate research output, and conducting research is considered the main mission for academics. Since teaching is one of the key academic practices in higher education, it is important to see how the institution

and individuals perceive and balance teaching and research. Moreover, there is a trend of research-intensive universities applying research concepts to undergraduate teaching (see, e.g. Brew, 2002; Deakin, 2006; Brew, 2010; Schapper & Mayson, 2010; Jiang & Roberts, 2011; Mayson & Schapper, 2012; Herrero & Vanderschelden, 2019; Gollner et al., 2022. On the other hand, research universities have strengths in conducting high-quality disciplinary research, including educational studies. In other words, it is expected that world-class universities have advantages in researching undergraduate teaching and subsequently provide professional guidance for the teaching practice.

2.2.3 Teaching Quality

Interest in improving the quality of academic teaching has been increasing since the late 1960s (Postareff, 2007). With the rapid growth of higher education markets, policymakers began to raise the issue of quality in mass higher education in the 1980s (Shin & Toutkoushian, 2011; Stensaker et al., 2017). It was not until the 1990s that the quality of teaching in higher education began to receive more attention due to a considerable increase in research on teaching and learning in higher education (Postareff, 2007). More recently, ‘quality’ has become a keyword in the development of universities, representing greater accountability in the use of public funds. Together with changes to the structure and funding of higher education, the notion of quality is designed to increase universities’ competitiveness for students and resources (Milliken & Colohan, 2004). Furthermore, teaching quality has been interpreted in the context of the research-intensive university, with additional focus on its relationship with research and strategic perspective (Stensaker et al., 2017).

Comprehending the definitions of quality that are used both implicitly and

explicitly in policy documents is important because what is considered quality in undergraduate education helps shape the basis on which universities are judged and evaluated and thereby frames their role in society (Ashwin et al., 2015). However, quality is difficult to define because it has different meanings for diverse stakeholders. Barnett (2003) considered quality as an ideology which contributes to undermining the liberal notion of the university as a site of rational discourse.

Teaching quality is interpreted from different perspectives. Education includes two dominant conceptions – objectivist and relativist – of quality (Barnett, 1992). Objectivism rests on the continuing interaction of university members rather than definitive outcomes, while relativism understands quality as performance, which researchers and institutions widely accept.

Harvey and Green (1993) claimed two dimensions of relativism. The first dimension is about the context and speaker, and the second dimension is the benchmarks. In addition, they distinguished four definitions of quality. First, quality is excellence. This is the traditional conception of quality and the dominant one in higher education institutions, especially the old, elite ones. Second, quality can be ‘value for money’ to satisfy public accountability. Third, quality is ‘fitness for purpose’ which relates to the goal and mission of the university. Ellis (1993) therefore suggested a working definition of teaching as the standard it must meet to achieve specified purposes to the customers’ satisfaction. In the educational context, ‘customers’ mainly refers to students and their parents (Ellis, 1993). However, what qualifies as ‘satisfaction’ is subjective and certainly questionable. Moreover, the idea of satisfying customers (students and parents) in the higher education context can cause misunderstanding or misinterpretation of what and how higher education should teach undergraduates. The fourth and last definition is that quality is ‘transforming’; it transforms students’ perceptions and approaches to applying

knowledge to the real world.

Barnett (1992) provided a suggestive definition of quality in higher education. Quality higher education is at least the high evaluation of an educative process, demonstrating that, through the process, the student's educational development has been enhanced. Not only has the student achieved the particular objectives set for the course but, in doing so, the student has also fulfilled the general educational aims of autonomy, the ability to participate in reasoned discourse, and critical self-evaluation, coming to a proper awareness of the ultimate contingency of all thought and action.

In addition, Ashwin, Abbas and McLean (2015) further illustrated that the existing studies on quality in higher education have indicated a struggle between a marketized definition of quality as fitness for purpose and value for money and definitions of quality that are based on the transformation of students (see, e.g. Harvey & Green, 1993; Shields, 1999; Morley, 2003; Houston, 2008; Cuthbert, 2010; Barrett, 2011).

Within higher education, internal and external stakeholders are likely to have disparate or even contradictory definitions of quality. Avdjieva and Wilson (2002) suggested that universities are now required to become learning organisations, wherein universities interpret and assess the quality of their institution by themselves, apart from external agencies. The emphasis for internal stakeholders is not only on quality assurance but also on quality enhancement, which aims for an overall increase in the quality of teaching and learning, often through innovative practices (McKay & Kember, 1999a, 1999b).

As a result of the difficulty in defining quality, its measurement and management have proved to be contentious. Higher education was previously considered an area where quality measures could not apply because professors designed

their courses by themselves and were recognised as having the highest level of specialisation in their discipline (Shin, 2011). However, more approaches and models are now applied to evaluating higher education.

In the following sections, teaching quality is illustrated from two perspectives. I use ‘teaching excellence’ as the approach to interpreting the outstanding quality of teaching and refer to quality assurance as an approach to evaluating teaching quality.

- **Teaching Excellence**

Unsurprisingly, against the backdrop of world-class universities, global university rankings, and managerial logic and practice in higher education, the idea of teaching excellence has emerged and become a common phrase to identify high-quality teaching (Peters & Waterman, 1982; French & O’Leary, 2017). High-quality teaching emerges as an idea as practitioners seek to realise educational values in practice (McLean & Blackwell, 1997).

The various methods for defining excellence in higher education include input (student characteristics, teacher characteristics and course characteristics), process (classroom atmosphere, teacher behaviour, student learning activities, course organisation and evaluation procedures), and products of teaching (Braskamp et al., 1984). Skelton (2005) constructed four ‘ideal types’ of teaching excellence, including traditional, performative, psychologised and critical. The first type, traditional, evokes the early understanding of teaching excellence through the consensus of the ‘idea of university’ (Skelton, 2005, p. 25). This assumption is marginalised due to the diversity and massification of universities in postmodernity. The second type, performative, reflects the contemporary notion of changing relations between higher education and the

nation, with an emphasis on measurement and control. Another type of teaching excellence, psychologised, captures those meanings of teaching excellence that arose amidst calls for the professionalisation of teaching in higher education. The last ideal type is critical. Critical understandings of teaching excellence associate it with the goals of freedom, justice and student empowerment. Teaching according to this perspective is inescapably political and at odds with the traditional emphasis on the disinterested pursuit and dissemination of knowledge (Skelton, 2005, p. 26).

From a pedagogical perspective, teaching excellence refers to those teachers who excel in aiding student learning, but this concept may not have enough explanatory power (French & O'Leary, 2017). In the previous section on teaching and learning, the teacher-centred approach and the student-centred approach were discussed. It was found that improving the quality of teaching requires a learning-focused approach, which means that the emphasis is on the student's experience of learning rather than the teacher's experience of teaching.

Many universities believe that their vision and mission should be set on nothing less than excellence. This is explicitly encouraged by the national bodies and external agencies related to higher education; for example, consider the establishment of the Teaching Excellence Framework from the Office for Students in the UK. Ideally, the synergy between teaching and learning is of the greatest strategic significance. The successful pursuit of excellence in teaching and learning should be regarded as a dynamic process.

Different institutions can contextualise teaching excellence differently. Research universities may claim that the latest research findings and scholarship inform teaching excellence (Skelton, 2005). Moreover, the focus on learning in recent pedagogical studies encompasses the 'teacher-as-learner'.

In other words, the profession of teaching can be learned, and teachers can learn teaching during the teaching process. Therefore, this perspective associates teaching excellence with a continuous process of learning, so excellence is not an endpoint but a dynamic process of ongoing professional development (Skelton, 2005). For the institutions, the support for teaching excellence may be facilitative rather than direct, offering the necessary working conditions, ethos, incentives and support for excellence to prosper (Skelton, 2005; Lindblom-Ylänne & Breslow, 2017). Higher education institutions seek to promote a community that considers teaching excellence a core activity (Skelton, 2005), which can create a culture of appreciating teaching and, therefore, enhance teaching quality by providing the necessary resources, infrastructure, development opportunities and climate that enable individuals and teams of teachers to prosper.

Ashwin (2022) proposed two major strategies for fostering system-wide teaching excellence: exemplar and mapping approaches. The former focuses on identifying particular cases of teaching excellence, whether at the level of the individual teacher, department or subject grouping, or institution. The latter measures the level of teaching excellence across the system of higher education.

Under exemplar approaches, teaching excellence is defined by those applying for the status of ‘excellence’. Applicants tend to build their own narratives of teaching excellence. Furthermore, exemplar approaches tend to emphasise the importance of recognising and rewarding excellence. The long-term effects tend to be felt more by a small group of specialists who benefit from engaging with students rather than changing everyday teaching and learning across the whole system (Trowler et al., 2014).

In contrast, mapping approaches identify the expected outcomes of excellent

teaching. In other words, the common measures of student outcomes are the focus. The competition model of change is the foundation of mapping approaches. In this view, only the finest institutions are recognised, while the rest must either improve in all areas or risk being 'punished' (for instance, losing students or ceasing to offer degree programmes) (Ashwin, 2020).

Barnett (1992) suggested some ways to achieve teaching excellence, including research activities for teaching staff, course monitoring and review, and staff development. A point of great significance from Barnett's work is the importance of the institution in improving teaching quality. This implies that teaching quality can be significantly influenced by both teachers and the organisational context.

Despite various methods of defining teaching excellence, researchers point out that the term excellence can be problematic (Clegg, 2007). The literature suggests that it is an ambiguous notion and requires more research on how excellence is interpreted in empirical settings. As Behari-Leek and McKenna (2017) pointed out, teaching excellence must contribute to inclusivity and the transformation of society. The focus on teaching excellence can help challenge notions of teaching as a craft of common sense, recognising the role of research in informing teaching (Saunders & Blanco Ramírez, 2017).

- **Quality Assurance**

In previous sections, I explained that universities have become more aware of the importance of teaching quality and now aim to assess it from an institutional perspective, therefore managing the academic practice (Avdjieva & Wilson, 2002). This section focuses on quality assurance to illustrate how teaching quality can be evaluated and provide evidence for allocating funds and other resources.

In higher education, performance concerns are now given more prominence (Austin & Jones, 2018). Higher education sectors in the 1990s made strenuous efforts to improve the overall quality of teaching and learning (Gibbs et al., 2000; Morley, 2003). However, quality itself is a somewhat ambiguous term with connotations of standards and excellence (Ellis, 1993), which different institutions can diversify.

Trow (1993) addressed the fundamental problem of trying to assess teaching: teaching is assumed to be one kind of activity, and excellence in it, is one kind of excellence. However, teaching involves both teachers and the teaching practice; the quality of teaching is not the quality of a teacher but of a relationship, aspects of which are defined by the character, talents and motivations of the learners. ‘Thus, teaching is not an action but a transaction; not an outcome but an interactional process; not a performance, but an emotional and intellectual connection between teacher and learner’ (Trow, 1993, p. 9). In other words, simply establishing the performance indicators is not enough to assess teaching quality, which means that focusing only on the criteria and index from a university may not be able to capture all the practices of recognising, evaluating and enhancing education from the institutional perspective.

Broadly, Ellis (1993, p. 7) offered three categories of quality assurance in higher education. First is the view that quality assurance is just a new label for a set of procedures well-established in higher education. The opposing view is that quality assurance represents a novel approach to the establishment and maintenance of standards in universities. Third, an intermediate view believes that universities do indeed make progress towards assuring quality for their teaching and courses, but they should establish systems and approaches that are distinctive and match the special characteristics of the academic endeavour.

Two other approaches demonstrate the quality of higher education, one from student learning outcomes and the other from external examination (Ellis, 1993). One common theme among all approaches to quality assurance in higher education is the central importance of the attitude and behaviour of staff (Ellis, 1993; Griffiths, 1993).

With the increasing importance of higher education quality and the demand for its analysis, quality assurance schemes are being developed. Dill (2007) distinguished between three forms of quality assurance, as shown in the table below.

Types	**Focus**
The reputational approach	Utilise the peer review mechanism to assess the quality of programmes and institutions
The student outcome approach	Based on the measurement of outcome indicators of student achievements both when attending higher education and afterwards (career, earnings, etc.)
The total quality (management) approach	Stress broad participation, client orientation, organisational learning, and coordination

Table 2. Three Forms of Quality Assurance (Dill, 1992)

In practice, there is no widely accepted method for evaluating teaching quality, and there is no ‘one size fits all’ idea (Westerheijden et al., 2007). Therefore, the practice must be understood based on the organisational and disciplinary context.

Brown (2004, p. 162) illustrated the following regimes for effective quality assurance: (a) the underlying purpose must be improvement, not accountability; (b) the regime must focus on what is necessary for quality improvement; (c) the

regime must bolster, not undermine, self-regulation; (d) the arrangements must be meaningful to, and engage, all those involved; (e) the arrangements must promote diversity and innovation; (f) there must be adequate quality control (of the regime); (g) there must be clear accountability (of the agency); and (h) there must be proper coordination with other regulators or would-be regulators.

Though Brown (2004) provided some direction for how quality assurance might function in the higher education sector, quality assurance is still complicated and must be contextualised and interpreted. On the one hand, this is due to the involvement of multiple stakeholders, including governments, third-party agencies and universities. On the other hand, quality assurance relies on understanding what constitutes quality education. However, as demonstrated by the preceding debate, teaching quality cannot be simply described. Consequently, the corresponding quality assurance can be construed in several ways.

2.2.4 Interaction and Conflicts Between Managerial Logic and Academic Logic

In the previous sections, I explained the emerging managerial concepts and practices in higher education and their impact on academic logic and teaching, in particular. In this situation, teaching quality becomes a significant issue in providing evidence for public funding allocations and satisfying student expectations of higher education.

Academic and managerial logics co-exist in universities as a combination of professional/academic and managerial/administrative values at organisational and individual levels. These multiple logics can compete and may be difficult to reconcile, resulting in ambiguous goals and rules for individuals who react by

either maintaining or changing their behaviour (Guarini et al., 2020, pp. 5–6).

The general tenor of this discussion typically takes one of two forms. One argues that this is an inevitable trend in the context of the expansion and complexity of contemporary higher education institutions (Tight, 2014). The other form desires the survival of traditional academic values against the managerial approach. This does not imply that academic roles fail to change, but instead, that change does not automatically mean that academic interests and values are weakened. Scholars often argue that academic logic should guide academics and perceive managerial logic as a threat to academic logic (Blumenthal et al., 1997; Campbell & Van der Wende, 2000). Regarding the latter idea, scholars generally criticise the negative impact of managerial ideas from the perspective of collegiality, maintaining that academics can make decisions in universities and colleges collectively with the assistance and support of administrators, the more traditional and desirable alternative (Deem et al., 2007; Tight, 2014). Moreover, some scholars mention that the shift of university management to this more corporate style also appears as a direct threat to the academic freedom (Henkel, 2005; Melo et al., 2010) of staff accustomed to having a greater degree of flexibility and autonomy in their work (Bellamy et al., 2003). The constraints of the system temper innovation and novelty; strengthen conformity and superficiality, especially in certain fields, such as social sciences (as opposed to physical sciences); and create constraints on the development of multivocality, leading to ambiguity (Gendron, 2008).

Beckmann and Cooper (2013) critiqued the rise of quality assurance, performance management and other aspects of what they term managerialism, concluding that ‘the impact of managerialism in higher education has damaged not only the education process but society in general. In particular, education’s social purpose, for generating a critically aware, empathetic citizenry, freely

engaged in democratic participation, has been eroded' (Beckmann and Cooper, 2013: 20).

From an empirical perspective, scholars argue that managerialism works against its own intentions of efficient and effective quality improvement (Trow, 1994; Thornhill et al., 1996; Davies & Thomas, 2002; Bryson, 2004). For example, Bryson (2004, pp. 192) explained that university employees 'no longer enjoy any part of the job' because the increasingly business-oriented administrative tasks and assessments cause them to spend more time on such secondary activities. Often, the implementation managerialism causes this diversion, with no direct relationship to the primary process or acknowledgement of the specific nature of universities as professional, autonomous institutions. This is quite similar to the extensive Canadian study conducted by Townley, Cooper, and Oakes (2003), which demonstrated how scepticism and cynicism replaced managers' initial enthusiasm over performance management through a growing gap between the discourse of reasoned justification (e.g. achieving transparency, serving public interests) for managing performances and the practical operationalisation of such mechanisms. In addition, employees adapt their activities to 'the simplifying tendencies of the quantification of outputs' (Trow, 1994, p. 11). This so-called increased objectivity through quantifying outcomes is consistent with an instrumentalist perspective on the functioning of higher education organisations (Barnetson & Cutright, 2000).

A third view sees a 'marriage' between professionalism and managerialism, with academics losing some control over the goals and social purposes of their work but retaining considerable autonomy over their practical and technical tasks. In fact, there has been 'passive acceptance' or 'tacit approval' and even 'positive support for many of the changes of increasing managerial ideas in the higher education sector' (Locke & Bennion, 2011). Some academics have

welcomed the streamlined committee structures, quicker decision-making, and professionalisation of management. In some institutions, this has allowed academics to concentrate on teaching and research and take advantage of new opportunities for engaging with external partners and accessing additional resources (Locke & Bennion, 2011). However, there are academics who are marginalized by these developments (Marginson & Mollis, 2001), some who make compromises to reconcile their preconceptions of academia with their experiences of working in a corporatized university (Churchman, 2006), and a few who internalize a managerialist ideology for their career advancement (Deem & Brehony, 2005).

The desirability of these three positions is also subject to a range of views. Sauermann and Stephan (2013) suggested that academic and managerial logic both influence academic practice, and thus they coexist in academia. Some authors claim that the existence of multiple logics leads to conflicts between them, whereby one becomes dominant and excludes the others (Thornton & Ocasio, 1999; Lounsbury, 2002; Greenwood et al., 2011). Others observe coexistence and constellations of logics whereby different logics shift in relevance (Binder, 2007; Goodrick & Reay, 2011; Smets & Jarzabkowski, 2013; Waldorff, 2013). Some scholars claim that multiple logics provide the basis for organisational existence (Battilana & Dorado, 2010; Pache & Santos, 2013b; Smets et al., 2015); still, others perceive that multiple logics bear the seeds of destruction for organisations (Tracey et al., 2011). Consequently, the interaction between various logic and its consequences for organisations and individuals is ambiguous.

Previous studies provided many critiques of the negative impact of managerial concepts on higher education in terms of its academic value and practice. However, as the previous content implies, managerial logic should not be understood only from the perspective of performance indicators but also that of

support and resources from the governing and managing sector of the institution. The research in this area can expand to investigate all institutional decisions related to teaching, rather than evaluation only.

Empirically, research on teaching quality is usually from the student perspective, including student learning outcomes (see, e.g. Ginns et al., 2007; Biggs & Tang, 2011; Nilsen & Gustafsson, 2016) and evaluation of teaching (see, e.g. Shevlin et al., 2000; Chen & Hoshower, 2003; Secret et al., 2003), though there are many studies criticizing such an approach (see, e.g. Boring, 2017; Uttl et al., 2017; Heffernan, 2022). Academics receive instructions from the institution and apply them in practice. Knowing how the perception and transformation of institutional decisions into practice occur is the key to understanding the interaction or conflicts between managerial and academic logics.

Moreover, although academics teach, the process outside the classroom involves university leaders and administrators providing instructions and support to teachers and students. When the research relates to institutional management, the participation of leaders and administrators is crucial, as they play key roles in the managerial process.

Additionally, most of the research on teaching quality has occurred within single-nation contexts, though higher education is increasingly an international business (Brookes & Becket, 2007), requiring the comparison of universities on a global scale. Although it is widely accepted that higher education is closely linked to the national system and expectations, and teaching practice is nationally diverse, the globalisation of higher education is an inevitable trend. Therefore, seeking similarities and differences among different countries with empirical evidence is important in providing a comprehensive picture of different education systems.

Chapter 3 Research Questions and Analytical Framework

This study looks at how world-class universities concern and handle undergraduate teaching. The previous chapter addressed the theoretical and empirical studies on managerial and academic rationales and their conflicting nature in academia. I examined the interactions between managerialism through institutional strategies as rational instruments and academic logic through communities of practice as social contexts emerging from academic identities and disciplinary characters.

In this chapter, I first present my research questions and then outline the conceptual framework of this research by providing details on the analytical aspects of managerial practice and academic practice.

3.1 Research Questions

A great deal has been written recently about the changing nature of academic work, specifically on the effects of the new forms of managerialism on academia (Barnett, 1999; Henkel, 2000; Archer, 2008; Clegg, 2008). Despite the large number of studies which theorise on how managerialism might influence academic logic, there has not been sufficient empirical evidence to vindicate the theories on how managerial rationales affect academic practice.

This study aims to investigate world-class universities' institutional strategies towards undergraduate teaching, specifically, how they improve the quality of undergraduate teaching, (re)balance teaching and research and manage university missions. The main research question asks how institutional strategies address teaching quality in world-class universities. I divide this into three research questions:

- How do institutional strategies in world-class universities address

undergraduate teaching?

- How do institutional strategies affect lecturers' perception of undergraduate teaching in world-class universities?
- What are the implications for balancing teaching and research in world-class universities?

The three research questions are coherent in a way that deepens the research objective of managerial rationales through the investigation of institutional strategies, as they interact with academic logic and undergraduate teaching, in particular. The first research question, therefore, calls for details from the perspective of 'strategy as planned'. The second research question aims to further investigate 'strategy as pattern' by understanding how academics perceive and react to their institutional strategy of undergraduate teaching. Because world-class universities are often research-dominant, the third research question investigates the current interactions between teaching and research and seeks implications on how these two missions should be balanced in higher education.

In the following sections, I first demonstrate how an institutional strategy can be used as a lens to understand university management. Second, I apply the framework of community of practice (Wenger, 1999) to structure the academic logic of higher education with a focus on explaining undergraduate teaching.

Before presenting the research design, I briefly illustrate the research paradigm, which represents the beliefs and values that guide the research, from the study's design to data collection and analysis (Schwandt, 2001). Because universities can be very different, due to national and institutional characteristics, what has been found in one university need not apply to another. Therefore, this research's paradigm is context-dependent.

3.2 Managerial Logic through Institutional Strategy: A Lens to Understand How Universities Address Undergraduate Education

The idea of strategy comes from the academic field of business and management, but universities have adopted more ideas of strategy as higher education has become more managerialist and dependent on rankings. Strategy provides a lens through which one can investigate management from the institutional perspective. As Ramsden (2003) suggested, since universities have become increasingly accountable for the quality of teaching, academics are required to improve their understanding of the institutional process, and institutional strategy can be one explicit channel allowing all stakeholders to understand the overall management of the university. In my present research, I employ Minztberg's (1987) concept of 'strategy as deliberate and emergent', so as to match the dynamic and organic environment of higher education institutions. In this section, I explain this idea of strategy as being deliberate and emergent. I then apply the idea to the context of higher education.

3.2.1 Strategy as Deliberate and Emergent

Strategies can be interpreted differently, due to their diverse functions and the contexts in which they operate. Generally, a strategy is an organisational response to a changing environment (Chandler, 1962). A traditional view of strategy is that it is the determination of the long-term goals and objectives of an enterprise, the adoption of courses of action, and the allocation of resources necessary for carrying out these goals (Chandler, 1962). A more detailed description was provided by Stoner and Freeman (1989), according to whom strategy can be defined from the perspective of what an organisation intends to do and also from the perspective of what an organisation eventually does, regardless of whether those actions were originally intended. From the former perspective, a strategy is a broad programme for defining and achieving an

organisation's objectives and for implementing its mission. The word 'programme' implies an active, conscious and rational role that managers play in formulating an organisation's strategy (Stoner & Freeman, 1989). From the latter perspective, strategy is the pattern of an organisation's responses to its environment over time. To identify a strategy by reference to such patterns, organisational members must understand it as a collective pursuit of organisational goals (Fumasoli, 2011). Thus, every organisation has a strategy, even if that strategy has never been explicitly formulated (Stoner & Freeman, 1989). Mintzberg (1987) noted that an organisation (which may be a higher education institution) needs strategies to outsmart competitors, promote coordinated activities, define the organisation and its direction, reduce uncertainty and provide consistency, aid cognition, satisfy the intrinsic need for order and promote efficiency under stable conditions by concentrating resources and exploiting past learning.

Institutional strategies can develop both deliberately, per intentional strategies, and unintentionally, per emergent strategies (Mintzberg & Waters, 1985). A deliberate institutional strategy involves an organisation purposefully working to effect institutional structures that favour its strategic position. An emergent strategy involves 'patterns or consistencies realised despite, or in the absence of, intentions' (Mintzberg & Waters, 1985, p. 257). Thus, an emergent institutional strategy involves a pattern of organisational action that affects or influences institutional structures while being associated with some other intentions (Lawrence, 1999).

The fundamental difference between deliberate and emergent strategies is that, while the former focuses on direction and control, the latter opens up the notion of 'strategic learning'. Defining strategy as intended and conceiving it as deliberate, as has traditionally been done, effectively precludes the notion of strategic learning (Boezerooy, 2006). In practice, most strategies are partially

intended but also developed during their implementation process. Therefore, the concept of the strategy contains at least two perspectives: plan and pattern (Mintzberg et al., 1998).

In higher education, universities usually guarantee academics a high level of academic freedom for their academic pursuits. In addition, academics can decide what and how they want to teach students. In other words, strategies for teaching are not merely received from upper management; they also emerge through practice. Therefore, this study applies both the concept of 'strategy as plan' and that of 'strategy as pattern'.

Intended strategies that are fully realised are called 'deliberate' strategies. Those that are not realised at all are 'unrealised' strategies. An 'emergent' strategy may obtain in a case where no emerging pattern was expressly intended (Boezerooy, 2006). Mintzberg, Ahlstrand and Lampel (2005) illustrated these concepts using the below figure.

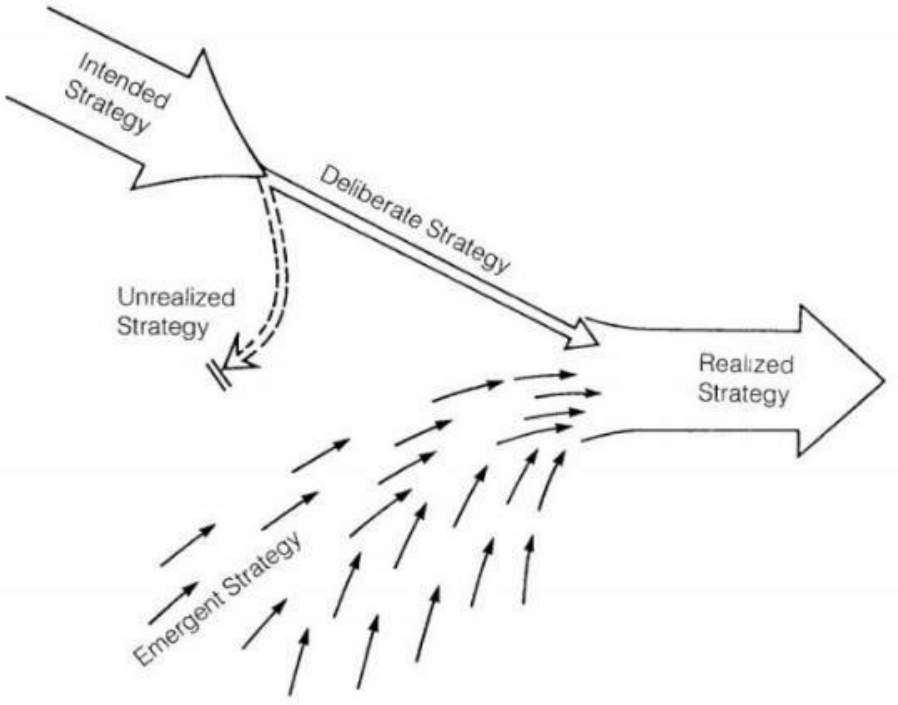

Figure 2. Deliberate and Emergent Strategies (Mintzberg, Ahlstrand and Lampel, 2005, p. 12)

Thus, a strategy is not only a plan for progressing missions and achieving goals but also a consistent pattern over time (Toma, 2012). In the next section, the concepts of deliberate and emergent strategies are situated in the context of higher education institutions.

3.2.2 Strategy Applied in Higher Education Institutions

Over the past two decades, enhancing efficiency and effectiveness has become more important to higher education institutions, leading them to increasingly use strategies borrowed from the military and adapted for use in business (Brunsson & Sahlin-Andersson, 2000; Baxte, 2019). The contexts in which institutions exist and operate constrains their strategies, as do their disciplinary profiles, infrastructures and structural capital (Garnett et al., 2008). Universities make strategic choices not merely to satisfy the demands of their external environments, but also in response to available and accessible strategic opportunities (Thornton et al., 2012; Ocasio & Radoynovska, 2016; Austin & Jones, 2018). In addition, institutional strategies provide organisational members with clearer goals, by setting priorities for organisational members as they encounter challenges and opportunities in their daily work.

As a special type of non-profit organisation, a higher education institution utilises the notion of strategic planning more frequently for its development (Stensaker & Fumasoli, 2017). Initially, strategic planning was a tool for articulating institutional missions and visions, helping prioritise resources and promoting organisational focus (Allison & Kaye, 2011). The emergence of strategic planning in higher education originally focused on facilities and space-planning during an era of rapid expansion (Dooris et al., 2004; Hinton, 2012). As a result, strategic planning in the early stages produced documents that

described the institution without much emphasis on motivating the process (Hinton, 2012).

More specifically, Dooris, Kelley and Trainer (2004), cited three themes in the current development of institutional strategy. First, a cultural-environmental-political perspective on strategic planning tempers a rational-deductive, formulaic approach. Second, strategic planning is now increasingly about learning and creativity, with the recognition that college and university leaders must challenge assumptions and consider radically changing existing structures and processes. Third, there is a new and powerful emphasis on shifting from formulation to implementation and from plan to practice. More administrators now assert that the purpose of planning is not to create a plan but to implement a change (Dooris et al., 2004).

Reforms and measures in higher education institutions have involved both centralisation and decentralisation (Mok, 2004, 2013). The idea of new public management places decision-making authority at the local level (decentralised), according to goals the central authorities set (centralised). A management-oriented governance system highlights the need for strong local leadership, as well as incentives and the control of results, to assure quality and efficiency. In general, these changes assume that the decision-making authority within a university should be less decentralised and should be in the hands of those ‘qualified to rule’. Institutional governance has become more centralised, implying that, in many respects, the democratic nature of internal university governance structures has diminished (Maassen, 2002, pp. 30–40).

In examining these new developments towards centralised decentralisation, Musselin and Mignot-Girard (2002) observed the emergence of a more collective conception of universities. However, centralisation and concentration of power may negatively impact university viability, by reducing opportunities

for staff and students to participate in strategic decision-making (Boer, 2002). The trend towards managed universities stresses the vertical relationships among a few powerful persons or bodies, which are comparable to those of a hierarchy (Boer, 2002). The movement towards more centralised decision-making structures, which increases the authority of senior managers, can influence the decision-making and motivation of individual academics. No longer are academics the only authorities on how to teach, which books to use or what type of education to offer. Decisions about many subjects are no longer under the complete control of the individual academic, manifesting a shift away from professional judgement and towards more collective choice and administrative fiat.

Fulton (2003) stated that, alongside the new academic experts and changing patterns of decision-making, new managers populate higher education institutions, which are no longer controlled solely by administrators and bureaucrats (e.g. Vice-presidents) but also by quality managers, finance directors and fundraisers. Like the new academic experts, they all have plausible claims for a role in institutional governance (Fulton, 2003). Furthermore, for some, the traditional academic activities of undergraduate and postgraduate teaching and basic research are of less interest and importance than new near-market activities, such as full-cost training, commercial research, intellectual-property development and technology transfer. One can no longer assume that senior managers view themselves as academics and act as such (Fulton, 2003, p. 205).

One crucial function of institutional strategy is managerial. An academic institution must work as a unit towards a common purpose (Fumasoli, 2011), and the institution’s leadership must be able to steer its ship according to agreed-upon coordinates (Erkkilä & Piironen, 2020). An imperative that guarantees both controls and results not only lends legitimacy to institutional

leadership but provides an effective management tool. The second important function of strategy is communication. Strategic plans aim to fashion impressions and transfer information to stakeholders. In the higher education context, the institutional strategy manages internal practices by setting common goals through communicating among members, including academic and non-academic staff. Otherwise stated, how strategic decisions are delivered and how academics and other managing or administrative staff are perceived are important factors in the actual influence on academic practices.

In practice, strategies are utilised differently depending on how they are considered, and perspectives can be combined to fit specific institutional requirements. The literature identifies three main types of strategy: corporate, business and functional (Lorange & Vancil, 1975; Shirley, 1983; Ahlstrand et al., 2001).

Corporate strategy is the overarching strategy that concerns broader issues that spark competition among organisations (Andrews, 1971). It has the main functions including allocation of resources, organisational design, portfolio management and strategy trade-offs (Easterby-Smith, 1987). This kind of strategy is mentioned more frequently in studies on higher education institutions. The business strategy, or, competitive strategy, prescribes how an organisation competes within a particular industry or market and how it would achieve a competitive advantage over its rivals (Johnson et al., 2011). The functional strategy addresses decisions that follow the functional lines that support the business strategy (Johnson et al., 2011).

Shirley (1983) recategorised the strategy as institutional strategy, focusing first and foremost on the strategic direction of the institution as a whole: campus-wide functional strategies that focus on the organisation's first-order, formulative decisions; program strategies focusing on individual programmes

or clusters of programmes; program-level functional strategies, whose focus is the implementation of its overall strategy. In the cases of institutional and campus-wide strategies, Shirley (1983) modified six variables, including the following: (a) the basic mission of the institution; (b) the target groups of clientele to serve; (c) the goals and objectives that the institution must achieve to fulfil its mission and serve its clientele's needs; (d) the programmes and services it offers to attain goals and objectives; (e) its geographical service area; (f) the comparative advantage the institution seeks over similarly engaged competitors (Conway et al., 1994).

An institutional strategy generally contains a mission, values and a vision (Hinton, 2012). The mission defines the purpose and impact of the organisation; the values focus on what is most important for internal actors; the vision is what the institution aspires to become (Hambrick & Fredrickson, 2005).

The conceptualisation and the contextualisation of strategy in higher education institutions are gaining increased interest in the management of universities. Institutional strategies are considered lenses through which one can understand how universities accomplish academic missions. This study focuses on undergraduate teaching in world-class universities which rely on ranking and research intensity to achieve excellence. The increasing worldwide attention paid to the global ranking systems shows some similarities in universities' tactics. The institutional theory presupposes that different types of universities and colleges adopt similar strategic approaches (Toma, 2012; Baxter, 2019). However, despite the global context and the impact of global rankings, universities operate in their own environments and set their own priorities. Otherwise stated, there are diverse ways in how strategy is planned and in how it emerges from practice regarding undergraduate education; this can lead to correspondingly diverse impacts on teaching quality. It is of great value to understand how strategies, as explicit approaches to managing

universities, are interpreted and how they influence the way academic and non-academic staff implement activities related to undergraduate education.

3.3 Academic Logic through Community of Practice: The Framework to Understand Undergraduate Education

In the literature review, I clarified the working definition of academic logic as it pertains to academic practice. In particular, the present research focuses on undergraduate teaching. In this chapter, I discuss the concept of teaching quality by referring to the theory of community of practice (Lave & Wenger, 1991; Wenger, 1999; Wenger et al., 2002). I first explain the theory and framework of a community of practice. I then explain why I chose this framework to explain the fieldwork data.

3.3.1 Defining and Developing the Framework

Teaching and learning take place in a social context (Tiberius & Billson, 1991), which is based on and influenced by an impressive array of identities, values, norms, perspectives, behavioural patterns and information (Hackman, 1992). The social context is inherent in every teaching situation, and it is not entirely under the control of either academics or students; rather, it is also a result of interaction and is influenced by the institutional setting as well as the larger social context (Tiberius & Billson, 1991).

Academics voluntarily choose some changes as they seek to improve the quality of teaching, implement pedagogical research findings and support student learning. Other changes are imposed by faculties, universities, or regulatory bodies. Some changes are both educationally sound and externally imposed (James, 2013, p. 792).

In response, the community of practice is becoming an increasingly popular framework for enabling staff development in higher education (Tight, 2015). In higher education, communities of practice provide informal opportunities and defined spaces which allow academics to share experiences and disseminate innovative scholarship of teaching and learning (Bolam et al., 2005; Lindkvist, 2005; Roberts, 2006; Green & Ruutz, 2008; Yucel, 2009; Mann & Chang, 2010). Studies argue that communities of practice can be an effective means for staff development, by enabling academics to share teaching experiences and innovations (Wilson et al., 2020), thus resulting in benefits such as improved teaching quality and teaching awards (McDonald & Star, 2006: 2). There are examples of communities of practice which higher education institutions have established to develop teaching practices (with a focus on professional development) or to promote engagement with the research on teaching and learning (with an innovation focus) (Green & Ruutz, 2008; Mann & Chang, 2010; Yucel, 2009).

In addition, communities of practice have been used effectively in higher education to facilitate staff development and to support interdisciplinary teaching within single institutions (Warhurst, 2008; Cox, 2013; Pharo et al., 2014).

Community of practice is a theory that views learning as social participation (Wenger, 1999). It is a social structure for fostering learning, developing competencies and managing knowledge (Wenger et al., 2002). This framework is one of the most widely cited and influential notions of social learning to date, and is widely applied in different types of organisations, for example, education, business and healthcare.

The concept of community of practice was initially defined by Lave and Wenger

(1991), who wrote that learning is ‘increasing participation in communities of practice’ (p. 49). This definition emphasises the importance of participation. Community of practice is a theory of learning which assumes that ‘engagement in social practice is the fundamental process by which we learn and become who we are’ (Wenger, 1999). The theory contains two main concepts: learning process and identity. Wenger (1999) expanded upon this idea of a community of practice, articulating that social resources shape people’s learning trajectories and professional identities. Wenger and Wenger-Trayner (2015) further developed the concept by presenting it as an approach to knowing and learning that applies to various contexts, including business, organisational design, government, education and civic life. Wenger, Trayner and De Laat (2011) defined a community of practice as a ‘learning partnership among people who find it useful to learn from and with each other about a particular domain. They use each other’s experience of practice as a learning resource’ (p. 9). In other words, communities provide foundations for sharing knowledge, as individuals can learn by observing and modelling other people. A strong learning community fosters interactions and relationships between community members, based on mutual respect and trust (Li et al., 2009). In conclusion, the idea of the community of practice has several core elements including learning, identity and resource; the sharing of learning experience can be a resource for further improvements to the community.

Lave and Wenger (1991) initially considered the community of practice in terms of legitimate peripheral participation in a relatively unstructured social environment, where participants share a single field of practice. At that stage, he did not explicitly suggest that there was an element of formal leadership in the group, nor did he examine the boundaries of each community (i.e. the ways in which one community of practice might relate to other communities of practice in a given participant’s professional life). However, Wenger (1999, 2000, 2009), together with Wenger-Trayner (2015), later moved beyond this

conception. In their later works, these authors suggested that organisations could benefit from harnessing this situated learning process in a semi-structured way while maintaining the essential features of domain, community and practice (McDonald, 2012).

The core concept of the theory is a group of participants or members who belong to a community of practice because they share a concern, a set of problems or an interest in a certain topic (Theodorakopoulos et al., 2013). The community members deepen their knowledge and expertise in their shared area of interest, by interacting on an ongoing basis (Wenger et al., 2002; Wenger & Wenger-Trayner, 2015). It is also important that the participants practice their professions within the community and feel a sense of belonging and mutual commitment (Wenger et al., 2002). A community of practice guides the attention of members through the negotiation of meaning that constantly takes place within that community (Wenger, 1999).

There are several basic categories of participants in a community of practice. Some people participate because they care about the domain and want to see it developed. Others are drawn by the value of having a community and seek mainly to interact with their peers and people with whom they share an interest (Wenger et al., 2002). For those who have devoted most of their lives to learning their profession, connecting with others who share that commitment is rewarding in itself (Wenger & Wenger-Trayner, 2015). Communities of practice are also places to which people can make contributions and know that these are genuinely appreciated. Other members simply want to learn more about their practice; for those, the community is an opportunity to learn new techniques and approaches for honing their craft (Schuller, 2021).

According to Wenger (1999, p. 73), a successful community of practice must be based on its members' mutual engagement (i.e. the way they engage with

and respond to each other's actions and establish relationships based on those engagements), joint enterprise (i.e. the way members understand, contribute to and take responsibility for the development of the community of practice) and a shared repertoire (i.e. the ability to transform a range of resources into something that is used and engaged in). Building a successful community of practice requires participation and the ability to make practice meaningful (Wenger, 1998). The key idea of the community of practice, from the perspective of the participants, is that they share a common goal and are willing to interact so as to achieve that goal.

From the analytical perspective, a community of practice consists of three key aspects: the domain, the community and the practice (Wenger, McDermott and Snyder, 2002). The details are as follows.

- **The Domain**

The starting point of any community of practice is its domain. The domain is what initially motivates people to gather; it represents a shared concern or interest and is the knowledge base from which a group chooses to work. For Lave and Wenger (2004), the domain of a community of practice constitutes 'the area of knowledge that brings the community together, gives it its identity, and defines the key issues that members need to address' (p. 13). The domain, therefore, is what gives a community its identity and distinguishes it from a group of friends or a network of connections between people (Smith et al., 2017).

- **The Community**

This is undoubtedly the feature of the community that sustains it: ensuring that members keep participating. Community is essentially about relationships, and particular measures need to be put in place to ensure that this is fostered (Wenger, 2011). For Lave and Wenger (2004), the community constitutes 'the

group of people for whom the domain is relevant, the quality of the relationships among members, and the definition of the boundary between the inside and the outside' (p. 14). For a group of people to constitute a community of practice, its members must come together around ideas or topics of interest (the domain) and interact with each other to learn together.

- **The Practice**

Lave and Wenger (2004) defined practice as 'the body of knowledge, methods, tools, stories, cases, documents, which members share and develop together' (p. 15) to address recurring problems in their specific contexts. Recently, Consalvo, Schallert and Elias (2015) adopted a Wengerian perspective and defined practice as 'a way of acting in the world' and 'a field of endeavour and expertise' (p. 3). Practice can be both explicit ('said' or 'represented') and tactic ('unsaid' or 'assumed') (Wenger, 1999, p. 47). Combined, these definitions indicate that practice implies knowledge of, and engagement with, a domain. While the domain draws the participants together, and the community sustains their fellowship and learning, it is a practice that crystallises these experiences and shared knowledge (Mercieca, 2017).

In addition, it is common for communities of practices to generate connections. Wenger (1999) elaborated that there are connections among various communities of practice through practices, including boundary practices (when two communities of practice encounter each other and create new practices), overlaps (when practices of two communities have something in common) and peripheries (when communities of practice connect with the rest of the world by providing peripheral experiences or casual access). The relationships are visualised in the following figure.

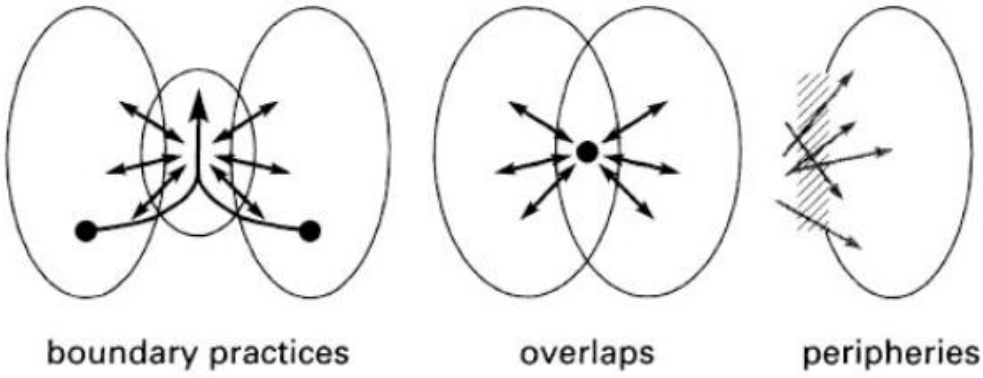

Figure 3. Types of Connections Provided by Practice (Wenger, 1998, p. 114)

In conclusion, a community of practice consists of three main elements: domain (a shared interest, competence and commitment that guide members' learning and actions), community (where the communication and interactions happen through different kinds of activities) and practice (the repertoires of resources and ideas established and shared by the community members in order to develop and maintain the core of collective knowledge). Additionally, the concept of a community of practice is a social learning approach that has been argued as nurturing members' learning needs and identity formation (Culver & Bertram, 2017). Wenger (1999) regarded participation within a community of practice as a 'source of identity' for its members (p. 56). For Wenger (1999), identity issues are integral to social learning theory, and learning is an experience of identity. 'It is not just an accumulation of skills and information but a process of becoming—to become a certain person, or, conversely, to avoid becoming a certain person' (Wenger, 1999, p. 215). This framework is meaningful in explaining how such communities achieve common goals through a learning process shared by all the members. These members engage in their community by constructing a certain identity and providing and receiving resources.

In the next section, I apply the framework to the context and research objectives

of this study, namely, institutional strategy and its influence on undergraduate teaching in a world-class university.

3.3.2 Contextualising the Framework

The community of practice model has attracted attention in many different fields, including business, particularly in knowledge management, education and organisational development (Herbers et al., 2011). Communities of practice play important roles in supporting social and collegial participation between academics (Ryan, 2015). Such communities can blur and shift traditionally competitive or hostile disciplines by providing non-threatening cross-disciplinary spaces for pedagogical learning and experiments in identity formation (Warhurst, 2008). Wenger (1999) related the community of practice to organisational performance and considered the community of practices as key to an organisation's competence and to the evolution of that competence (Wenger, 1999). Star and McDonald (2007) found that developing a community of practice can provide the required professional development, collaboration and mutual support in higher education curricula. Heath and Leiman (2017) further suggested that this might address some of the resistance to improving teaching quality, by offering resources for time-pressed instructors (McDonald & Cater-Steel, 2016). A community of practice can also provide support for discouraged and change-weary members and can increase the focus on what teachers want to achieve and how those goals should be organised, rather than on the implementation of university policy. In the higher education context, the framework is mostly applied to student learning in relation to different teaching methods and discipline-specific studies (see, e.g. Laksov et al., 2008; Blanton & Stylianou, 2009; Reilly et al., 2012; Smith et al., 2017).

In this study, the community of practice framework is used to better understand

issues associated with undergraduate teaching in world-class universities. The core philosophy of the analytical framework is the concept of 'teacher-as-learner' (Ramsden, 2003; Harvey & Kamvounias, 2008; Buchanan, 2012). The broader interpretation of that concept is that teaching takes place in social contact and can be learned. This idea aligns with the findings of previous studies to the effect that teaching in higher education is a profession that requires extensive training and study. This study focuses not only on the elements of teaching practice (e.g. content knowledge and teaching methods) but also on the overarching interpretation of the teaching process, with a focus on how teaching is perceived and designed. Additionally, it aims to understand how academic identity concerning teaching is fostered and influenced. According to Wenger (1999), learning includes 'what we think about learning … it influences where we recognise learning, as well as what we do when we decide that we must do something about it, as individuals, as communities, and as [an] organisation' (p. 9). Lave and Wenger (1991) suggested that learning at work occurs when meaning is shared, contested, negotiated and developed by people in social contexts; in this study, teaching is what academics learn.

Given that teaching can be interpreted as a social learning process, this study applies the community of practice framework as the lens in order to see how teaching practice stakeholders, including academic and non-academic staff, are influenced by the institutional strategies adopted by world-class universities and therefore construct the community with the common goal of improving the quality of undergraduate teaching.

To develop this study using this model, I have contextualised the basic features of a community of practice including the domain (i.e. the initial motivation for people to gather), community (i.e. the motivation to share and continue participating) and practice (i.e. the collective identity that is developed through the process). My analytical understanding of these features in the context of

higher education is described in the following sections.

- **Domain**

For the majority of academics, the initial motivation for working at a higher education institution is intrinsic (i.e. they intentionally join the university to work as an academic through teaching and research). In this study, the shared concern of the community of practice is the quality of teaching in undergraduate education.

- **Community**

A community of practice is not necessarily a physical community. Rather, it is the creation of an environment that motivates its participants to share their experiences and expertise regarding, in this case, undergraduate teaching. The community encourages all the participants to interact, connect, communicate, and trust one another. In this study, the community refers to the construction of the environment that was described by the academic and non-academic staff.

- **Practice**

Practice is key to developing a collective identity. This study focuses on academic identity and, in particular, the teaching professional identity. Academic identity is traditionally related to the value of academic freedom. However, this identity has become more complex and pluralised, as it exists at the intersection of individual life experiences and higher-education-specific contexts (Drennan et al., 2017). It is associated with membership in communities, which are primarily associated with one's discipline and university (Henkel, 2004; Van Lankveld et al., 2017). The teaching professional identity, on the other hand, is understood as the beliefs, values and commitments that an individual holds towards being a teacher and being a particular type of teacher (Hsieh, 2010). However, in this study, it is not only university teachers who have teaching identities. The idea is that any staff member who is involved

in teaching-related affairs can have a teaching identity. Therefore, leaders and administrators assigned the responsibilities of formulating and implementing teaching-related affairs also have an impact on the overall community.

However, when applying this framework to the present research design, an important issue needs to be addressed. One of the key features of communities of practice is that they are voluntary. This is what distinguishes a community of practice from a faculty meeting, working party or another group within an institution. Because this study's initial focus was on identifying the relevant institutional strategy, the community of practice was not as voluntary as it should have been during the data collection phase. Although the community of practice included additional decision-making processes and activities initiated by individual members, these were not clearly distinguished or purely voluntary. Although voluntary participation is critical to constructing a community of practice, Wenger, McDermott and Snyder (2002) have noted the importance of the organisation's engagement in constructing such a community.

Organisations need to actively and systematically cultivate communities of practice, for the benefit of both the members and the communities themselves (Wenger et al., 2002, p. 12). Organisations can take action to create environments in which communities of practice can prosper. Such actions include valuing the learning that occurs within the communities, making time and other resources available for their work, encouraging participation and removing barriers to participation. Creating such a context also entails integrating communities into the organisation by giving them influence in decision-making, granting them legitimacy by allowing them to affect operating units and developing internal processes for managing the value they create. If organisations fail to take such measures, communities of practice will still exist but are unlikely to achieve their full potential (Wenger, McDermott and Snyder, 2002, p. 13).

University faculty members can improve their teaching skills by sharing and developing their teaching practices (Green et al., 2017). However, the initial development of a community of practice requires an investment of time by time-poor academics, who must balance high teaching workloads and increasing expectations regarding research output (Houghton et al., 2015). University managers are unlikely to provide the material support necessary for the development and maintenance of communities of practice unless they are convinced of their efficacy (Green et al., 2017). In this highly competitive, rapidly changing context, with many academics feeling under-prepared and under-skilled for their teaching roles (Green & Whitsed, 2013), communities of practice can provide opportunities for meaningful, context-relevant professional development (Warhurst, 2008; Green et al., 2013).

Another key element of the process of developing a community of practice is negotiation. Within a community, stakeholders' power is always mediated by the community's pursuit of its own interests (Wenger et al., 2002, p. 14). Thus, rather than providing standardised training for academics, it is more effective to construct an environment that ensures that academics who care about teaching can be more influential. Accordingly, in this study, it was important to understand how academic identities, especially teaching identities, were constructed and shared by participants in the community of practice.

This study examines engineering studies, and the participants of the community of practice included academics who teach undergraduate courses, administrators who manage administrative matters related to undergraduates and undergraduate education, and institutional, faculty and departmental leaders who formulate and implement strategic decisions related to undergraduate education. It was more useful to investigate academic and non-academic staff, rather than students, because such staff members process

institutional strategies and apply them to their daily teaching practice. Moreover, staff members were also able to reflect on institutional strategies. In other words, surveying academic and non-academic staff partially captured the communication that occurs between different participants when implementing institutional strategies.

If a community of practice centred on teaching and learning is established, the participants would be mutually engaged in the teaching and learning of students (McDonald & Cater-Steel, 2016). The members of the community respond to each other's actions as teachers (e.g. asking each other for advice or finding collaborative partners for teaching activities). Moreover, the community members would form a new joint enterprise to support education, in addition to their research. The indicators of such a change could be that teachers understand and discuss the quality of student learning and their role as teachers in enabling such learning. The participants could build a pool of shared teaching resources through the development of tools and methods that support learning (Laksov et al., 2008).

To summarise, the community of practice model is the analytical framework on which my research design, including the approaches to data collection and data analysis, is based. As a learning theory, the core concepts of a community of practice include shared goals among the participants, the construction of a shared identity and the importance of the organisation in guiding and supporting the community was considered as increasing. In this study, I examined the teaching quality at a world-class university and collected data from stakeholders, including academic and non-academic staff, concerning the institutional strategies implemented by the organisation to construct such a community of practice.

3.3.3 Disciplinary Characteristics of Engineering Studies

Together with the type of institution, discipline plays an important role in the development of an academic identity (Austin, 1990; Becher & Trowler, 2001; Clark, 1987; Henkel, 2000, 2005; Neumann, 2001). The discipline is regarded as the central organising vehicle within higher education, and belonging to a 'disciplinary community involves a sense of identity and personal commitment' (Becher & Trowler, 2001, p. 47). The discipline is the central context within which 'academics construct their identities, their values, the knowledge base of their work, their modes of working and their self-esteem' (Henkel, 2000, p. 22). In summary, each discipline has its own characteristics when it comes to teaching, and it fosters academic identity in its own distinctive way.

The existing studies of the community of practice in higher education include but are not limited to engineering (see, e.g. Mann & Chang, 2010; Bennett & Male, 2017), public health (see, e.g. Ashford et al., 2017), biology (see, e.g. Yucel, 2009), chemistry (see, e.g. Schultz & O'Brien, 2017), mathematics (see, e.g. King & Cattlin, 2017), business (see, e.g. Culver & Bertram, 2017), law (see, e.g. Heath & Leiman, 2017) and arts (see, e.g. Fegan, 2017).

Like some of the other successful studies on the community of practice in universities (McDonald & Star, 2006), this study has been conducted within one discipline, engineering, in order to take advantage of academics' loyalty to their disciplines, so as to generate coherence of the study (Heath & Leiman, 2017). Moreover, in many countries throughout the world, there is national concern about the insufficient number of students continuing with science studies in higher education and on to science-based careers (Woolnough et al., 1997). Among these disciplines, engineering is of great importance in serving national development and industrial demands (Lin, 2017; Zhang & Zhou, 2021). In other words, the quality of undergraduate programmes in engineering usually attracts

more national attention. Moreover, as accredited programmes, engineering studies across different countries tend to share more in common than other disciplines, which further validates this study's findings and helps ensure that its suggestions can be widely adopted.

Disciplines provide the epistemological structure and social organisation through which individual academics come to make sense of their work in higher education (Becher, 1987). The epistemological structure of disciplines determines how they are taught and how teaching and teaching excellence are understood (Hirst, 1974). Therefore, different disciplines can organise or structure teaching and learning or teaching and research differently, in a variety of ways (Stensaker et al., 2017). Academics at a research university typically define themselves by reference to their disciplines (Clark, 1987; Neumann, 2009). Discipline also constitutes a primary site around which cultures and work practices develop (Trowler & Cooper, 2002). Therefore, disciplinary perspectives and concerns must be central to efforts to enhance teaching and learning. Academic disciplines have been defined as social communities bounded by self-referential communication that tends to share a view of the construction of knowledge (Trigwell & Prosser, 1996a, 1996b; Bernstein, 2000; Becher & Trowler, 2001; Weingart, 2010). In other words, disciplinary cultures may shape responses to the institutional strategy.

Echoing Biglan's (1973) distinction between pure and applied fields of academic disciplines, Becher (1989) modified and classified four categories of disciplines, namely 'pure hard', 'pure soft', 'applied hard' and 'applied soft'. The details appear in the following table.

	Nature of discipline	Teaching methods	The focus of student learning
Pure hard	Cumulative in nature	Mass lectures and problem-based seminars	Fact retention and the ability to solve logically structured problems
Pure soft	Holistic and qualitative in nature	Face-to-face class meetings and tutorials, including discussions and debates	Creativity in thinking and fluency of expression
Applied hard	Linear in sequence and based on factual understanding	Simulations and case studies to professional settings	Practical competencies to apply theoretical ideas to professional contexts
Applied soft	Accumulated in a reiterative process	Face-to-face class meetings and tutorials, including discussions and debates	Personal growth and intellectual breadth

Table 3. Categorisation of Disciplines (Becher, 1989)

Moreover, Bernstein (2000) argued that disciplinary communities vary in their degrees of boundedness into ‘singulars’ and ‘regions’. Bernstein (2000, p. 75) defined singulars as knowledge structures with a specialised discrete discourse with its own intellectual field of texts, practices, rules of entry, examinations, licenses to practice, distribution of rewards and punishment. Singulars are orientated to their own development and are protected by strong boundaries and hierarchies. As for regions, they are constructed by re-contextualising singulars into larger units which operate both in the intellectual field of disciplines and in the field of external practice.

Engineering studies fall under ‘applied hard’ (Becher, 1989) and ‘regions’

(Bernstein, 2000), with the characteristics of knowledge that is factual, a focus on practical competencies and being both multidisciplinary and interdisciplinary. Widely recognised as a profession with an accreditation scheme, engineering is typically project-based and requires students to achieve a certain number of competencies, in order to receive the degree.

According to the Washington Accord[2][3], a multi-lateral agreement between bodies responsible for accreditation or recognition of tertiary-level engineering qualifications, engineering programmes are to prepare undergraduates to apply mathematics, natural sciences and basic and specialised engineering knowledge to solve real-world problems (Li et al., 2012; Huang, 2015). In Passow and Passow's (2017) systematic review, engineering competencies are designed to tie to the life-cycle of the product, process or system. Technical competence inseparably intertwines with effective collaboration; engineers spend more than half their workday communicating, and engineering practice requires coordinating multiple competencies to accomplish a goal. Competencies that are important for engineering practice differ from required learning outcomes and graduate attributes. Problem-solving is the core of engineering practice, and competencies differentiate between outstanding and ordinary performance. Engineering education can better coordinate competencies as they occur in engineering practice. Academics also contend that teachers who teach in the 'hard disciplines', which include engineering, are more likely to apply a teacher-centred approach to teaching (Lueddeke, 2003). In addition, in the engineering disciplines, teaching may focus more on how students set up a problem to be solved (Quinlan et al., 2012). In other words, when referring to the institutional strategy on teaching quality in engineering studies, it is important to see whether the strategic decision, especially at the

[2] https://www.ieagreements.org/accords/washington/

[3] The reason for selecting the Washington Accord is not only because it is one of the most widely recognised agreements on engineering studies, but also because all the countries (China, UK, and Canada) in this research are signatories of it.

faculty level, takes the idea of problem-solving into consideration, as well as how academic and non-academic staff are expected to respond to it. Moreover, it is important to see how flexible the institutional strategy is in terms of evaluating teaching practice when teaching approaches differ across disciplines.

Chapter 4 Research Contexts and National Backgrounds

Although this study focuses on the influence of institutional strategies on the meso and micro levels, namely, institution and individual, institutional strategies have internalised the government's policies and requirements. In this chapter, I present the national contexts of higher education in China, the UK, and Canada to describe the external operating environment of universities. All three countries are illustrated from policy overview, funding structure, and teaching quality including the national scheme for education quality.

4.1 Higher Education and Teaching Quality in China (China's Mainland)

Higher education in China has the core function of serving national development (Hao, 2004; Pan, 2005). The close relationship between academics and politics is rooted in China's historical development (Wang & Jones, 2021). The national ideology has dominated the Chinese higher education system through various policies and regulations. In recent years, the central government has gradually weakened its influence and shifted from direct control to regulation, for example, resource redistribution, supervision and accountability.

Since the 1990s, China has taken steps to develop a more globalised and research-oriented higher education system by adopting a series of cultural, organisational and managerial reforms (Mok & Wang, 2007; Zha, 2009; Cai, 2010). In addition, individual universities have become more driven by market mechanisms and become more entrepreneurial, with a transfer of authority from the central government to institutions (Huang, 2017).

In the following sections, higher education in China is comprehended from national policies and funding structure, followed by the contextualisation of

teaching quality and national schemes for enhancing teaching quality.

4.1.1 Policy Overview

I have listed the primary policies concerning higher education in China’s Mainland to illustrate the research context from the national government's perspective, with a focus on funding structure and teaching quality. The simplified diagram is as follows.

Figure 4. Policy Overview of China's Mainland

Note. Information collected, analysed, and designed by the author.

According to these policies and initiatives, there are several characteristics of higher education development in China, including a focus on curriculum and pedagogy reform, ongoing funding investment and a focus on teacher cultivation and training. Since 1977, the status of technology and education has been explicitly stated as the foundation of national development, which enhances the importance of investing in higher education. One year later, the National College Entrance Examination resumed, which symbolised the urgency to select talent for national development.

Since the late 1970s, higher education experienced a fast development in China. From the 1990s, the Chinese higher education system underwent reforms resulting in decentralisation and an increase in both the number of higher education institutions and student enrolment (Yan et al., 2016). Meanwhile, universities are expected by the nation to operate on a global stage (Yuan, 2022). In addition, the diversification of funding schemes and the enhancement of quality teaching are of key importance for higher education. These two perspectives are therefore illustrated in detail in the following sections.

4.1.2 Funding Structure

The development of higher education finance is comprised of three major phases. The initial phase occurred from 1978 after the resume of the National College Entrance Examination to 1985. During China's 1978 reform of higher education, a basic idea emerged: funding is essential for enhancing higher education. Even though economic reform began in 1978, the main change in diversifying funding sources for higher education did not occur until 1985, when the Central Committee of the Communist Party of China published the *Decision*

of Reform of the Education System. Previously, higher education was exclusively funded by the central government, the local government and the education department through arranged funding allocation schemes.

The second stage lasted from 1985 until 1992. During this phase, the central government began decentralising the finance structure to grant the local government greater authority and flexibility. The system required the local government to submit a budget report to the central government before proceeding. Consequently, the central government taxed or subsidised local governments based on geographical disparities. In general, revenue from the government is still the greatest source of revenue for institutions, but as a fraction of institutions' overall funding, it has steadily and rapidly declined in recent years, while tuition fees now account for an increasingly considerable share (Huang, 2001).

The third stage began in 1993 and is ongoing to the present. In 1993, the diversification of universities was suggested in the *Outline of China's Education Reform and Development*. The finances originated not just from governments but also student fees and other sources, including donations, university-run industry income and education funding from society. From the 1993/1994 academic year, all students were required to pay tuition fees.

Today, the national government's funding allocation consists of comprehensive quotas and special grants. The comprehensive quota is based on a fixed number of students and is derived by multiplying the number of students by the amount of per-student allocation. The special grants supplement the comprehensive quota and are approved by the education and finance departments based on the national policy and the special needs of certain universities, for example, the central grants for the project of establishing world-class universities and first-class disciplines (Wang & Liu, 2018). In addition, the

government has introduced the idea of competition among institutions to effectively regulate the financial allocation of universities to achieve equity in higher education and improve the efficiency of investment in higher education. Moreover, the performance model is introduced by the government to measure universities' teaching quality, research achievements, and social service capacity (Sun & Jin, 2003; Xiong, 2007; Yang & Ge, 2015) as the reference for funding allocation. Therefore, teaching quality is one of the criteria for government grant allocation.

4.1.3 Teaching Quality

Education quality along with the expansion of higher education are two main characteristics of higher education development in China (Huang, 2005). Historically, the higher education system in China was modelled on that of the Soviet Union (He, 2007). One of the characteristics of this model is that academics spend the majority of their time on teaching activities while research activities are conducted mostly in research institutes outside of the university (Huang & Li, 2010).

Nonetheless, the situation changed in the 1980s, especially in the later 1990s when the policy of building world-class universities was issued with a significant focus on higher quality research achievement for universities to compete in the global market. Therefore, academics at universities have increasing responsibilities for research than teaching. Even though higher education is redirected with more focus on research achievement, education quality is still the core of national policies on higher education. Along with various programmes and initiatives for enhancing education quality, in 2012, the *Twelfth Five-Year Plan for National Education Development* clearly stated that improving the quality of education is the core task of higher education

development.

As early as 1990, the first regulation for assessing teaching quality was promulgated (Ministry of Education of the People's Republic of China, 1990)[4]. In 2004, the Higher Education Evaluation Centre was formed by the Ministry of Education to effectively and efficiently assess the quality of higher education on a national scale. It is specifically sponsored for the national assessment of teaching activities and other forms of professional education in universities. The Centre conducts quality assessments of the teaching activities at all institutions of higher education every five years. In addition, institutions are required to annually report information about their educational activities to the Ministry of Education (Huang, 2005). According to the results of the evaluation, institutions are evaluated as excellent, good, pass, or fail.

According to the *Evaluation Plan for Undergraduate Teaching* (2004), the criteria of quality higher education includes the guiding ideology, teaching staff, teaching conditions, curriculum construction, teaching reform, teaching management, teaching and learning ethics, and teaching outcomes. In 2018, The Ministry of Education released its first *National Standard on the Teaching Quality of Higher Education Institutions*[5], covering 587 majors in 92 categories in undergraduate education. In this document, higher education was instructed with three core directions including 'student-centred', 'outcome-oriented' and 'focusing on continuous quality improvement'.

Therefore, even though the focus of higher education institutions is now more on research, the government still emphasises teaching quality, especially undergraduate education.

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[4] http://www.moe.gov.cn/srcsite/A02/s5911/moe_621/199010/t19901031_81932.html

[5] http://www.moe.gov.cn/jyb_xwfb/xw_fbh/moe_2069/xwfbh_2018n/xwfb_20180130/sfcl/201801/t20180130_325921.html

4.1.4 Double First Class University Plan

The Chinese government has released several initiatives for enhancing higher education quality, for example, the 211 Project in 1995 which indicated the first step by the Chinese government to enhance the quality of higher education to establish 100 key universities in China by the 21st century, and the 985 Project in 1998 with the target that some Chinese universities and key areas of study should reach a world-class level and be internationally recognised. In more recent times, the government issues the *Double First Class University Plan* for establishing high-quality universities for competing in the global market.

The *Double First Class University Plan* was conceived in 2015 and has been implemented since 2017. It aims to create world-class universities and disciplines by the end of 2050. The complete list of the sponsored universities and disciplines was published in September 2017, including 42 first-class universities (36 Type-A schools and six Type-B schools) and 465 first-class disciplines (spread among 140 schools, including the first-class universities). This plan replaces Project 211 and Project 985.

According to the *Plan for the Overall Development of World-Class Universities and First-Class Disciplines* (the State Council of the People's Republic of China, 2015)[6], the construction of first-class universities and first-rate disciplines is divided into three steps:

- In 2020, a number of universities and disciplines will become world-class, and some disciplines will the forefront of the world.
- In 2030, more universities and disciplines will be world-class. A number of universities will be at the forefront of the world, and a

[6] http://www.gov.cn/zhengce/content/2015-11/05/content_10269.htm

batch of disciplines will be at the forefront of world-class disciplines. The overall strength of higher education has been significantly improved.

- In the middle of the 21st century, the number and capacity of first-class universities and first-rate disciplines will be at the forefront of the world and a country of strong higher education will be constructed.

Building world-class universities and disciplines in China is characterised by a top-down policy, accompanied by the growth in the amount of funding from both the national government and especially from local authorities for a few selected elite universities (Huang, 2015).

To summarise, the quality of higher education is always the core objective from China's national perspective despite the evaluation of the efficiency of public grants. The conventional ideology and the initial assumption that teaching is the major role of higher education institutions are directly tied to the constant emphasis on teaching quality. In particular, undergraduate education is considered the core of establishing world-class universities (Zhong & Fang, 2016). Although the higher education system in China is more decentralised compared to how it used to be, the central government still has overarching and guiding functions. In particular, the government continuously supports the development of higher education with a large proportion of funding. In recent times, higher education has become more international, and quality assurance has become more standardised.

4.2 Higher Education and Teaching Quality in the UK (England)

The following sections present the development of higher education in the

English context. Universities in the UK are organisationally independent from the national government (including England, Scotland, Wales, and Northern Ireland) (Michavila & Martinez, 2018). Despite the organisational autonomy, which is bolstered by increased levels of private expenditure on higher education, the government nevertheless exerts considerable control over higher education institutions (Locke, 2008). This is achieved by the allocation of funds and the conditions attached to these funds, in addition to the regulation and evaluation of institutional practices (Locke & Bennion, 2011). In the following sections, I contextualise higher education in the UK, in particular in England, through the interpretation of policies, funding structure and teaching quality (including the national scheme for enhancing teaching quality).

4.2.1 Policy Overview

To illustrate the research context from the national government's perspective, I have sorted out the main policies and initiatives of higher education development in England, in the following section. The simplified figure is as follows.

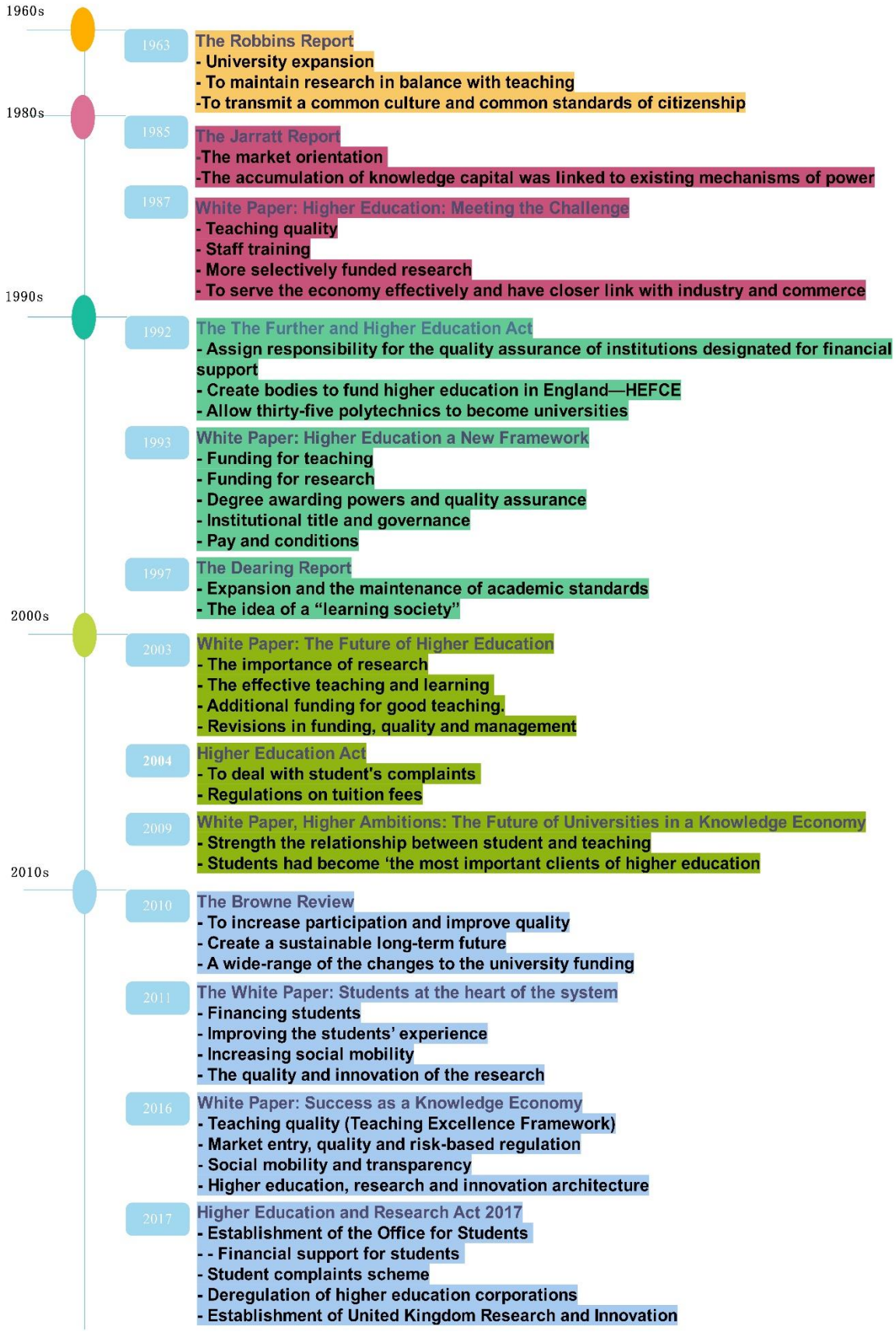

Figure 5. Policy Overview of the UK (England)

Note. Information collected, analysed, and designed by the author.

Over the last two decades, the government's principal higher education policy has been to support and encourage the sector's continued expansion (Machin & Vignoles, 2006). Expansion may be required for two reasons. To begin with, policymakers want to continue to increase the supply of skilled labour in order to compete on a global scale. Second, the government wishes to increase participation in higher education regardless of socioeconomic status (Machin & Vignoles, 2006). With the change from elite to mass education in the 1960s, the tides began to turn for British higher education, which was increasingly regarded as an economic and social good (Dobbins & Knill, 2014).

In addition, the funding strategy for higher education has changed in the past decades, in particular the rising and regulation of tuition fees. This is also related to further guidance for enhancing teaching quality. The details are discussed in the following sections.

4.2.2 Funding Structure

Universities in England are relatively autonomous, self-governing institutions with their own charter and governing council. However, universities receive public funding for both teaching and research, and therefore, are subject to the public policy made by research councils or by the Higher Education Funding Council of England (Strike, 2015).

With the continuous expansion of universities, the first issue is how they might be financed. In the UK, higher education used to be free for students. However, as higher education participation rose significantly, the lack of funding grew problematic. The per capita resourcing in higher education fell dramatically as student numbers expanded whilst funding remained more or less constant

(Clark et al., 2005).

In the late 1980s, the UK government examined student loan systems to cover part of the grants and, thus, enable further expansion of the sector. In 1990, the first UK student loan scheme was implemented for additional aid towards living costs. Therefore, the Student Loans Company was founded and funded entirely by the UK government as the executive non-departmental public body company in the UK that provides student loans. From 2006, loans covered not only the living costs but the cost of tuition fees after the introduction of the tuition fees in 2004.

The tuition fee for higher education in the UK has experienced drastic changes. In response to the major funding crisis, the UK government commissioned the *Dearing Report* (1997), which recommended students contribute to their education costs. The *Teaching and Higher Education Act 1998* was published on 26 November 1997, and enacted on 16 July 1998 has officially introduced tuition fees in all the countries of the UK. The fee was a maximum of £1,000 per year and was required before the student started the year of study in higher education. Economically challenged students were exempt from these fees. Previously, however, these students were also entitled to a grant to subsidise their maintenance costs whilst at university (Machin & Vignoles, 2006). However, such grants were gradually reduced in value and phased out completely in 1999. Instead, means-tested loans, repayable on an income-contingent basis after graduation were applied.

In 2003, the labour government proposed further radical reforms. These reforms allowed universities to increase their funding by levying higher tuition fees on students. Additionally, institutions could differentiate themselves by charging higher or lower fees than other institutions. In the following year, the *Higher Education Act* (2004) increased the maximum tuition fees that

universities can charge from £1,000 to £3,000 per year.

In the *Browne Review* (2010), students were depicted as rational consumers, burdened by rising fees and obliged to become skilled in acts of educational choice that were deemed appropriate under the terms of their contractual repositioning as individual debtors. Following the *Browne Review*, the cap was controversially raised to £9,000 (now £9,250 per annum, with some popular programmes costing more).

In summary, tuition becomes a major financial recourse of higher education in the UK, especially with the effect of the post-2008 austerity on declining public funding (Carpentier, 2021). The UK's higher education funding structure has developed from being solely government-funded to charging tuition fees, which potentially changes the demographic background, for example, social class and financial status, of students. In addition, the high tuition fee is developed along with the marketisation of higher education (Brown, 2015; Palfreyman & Tapper, 2016) which brings up the idea of 'students as customers' (Jabbar et al., 2018). The detailed findings and discussion are illustrated later in *Section 8.1.2 Student as 'Customer' and 'Consumer'*, together with the findings and analysis from the interview data.

4.2.3 Teaching Quality

The significant growth of student numbers, coupled with the increasing tuition fees, raises concern about teaching quality in the UK and gain attention from different stakeholders in the higher education sector (Watson & Bowden, 1999). Although in the UK, university reputation and prestige are largely associated with research (Locke, 2004), more emphasis has been placed on teaching in recent years. Cope and Goodship (1999: 4-5) identified three sets of pressures

that have contributed to this:

- At the ‘macro’ level, the government is restructuring to remain competitive in the global marketplace.
- At the ‘meso’ level, increasing the adoption of New Public Management aims to remove differences between the public and private sectors, and shift ways of doing business in public organisations away from complying with procedural rules towards getting results.
- At the ‘micro’ level, increasing regulation enables both politicians and bureaucrats to increase their control and their ability to ensure that regulatory agencies serve their interests.

In addition, teaching quality is also intensified with increases in the number of students and the introduction of tuition fees, which has led to a greater priority on the quality of higher education, as students are viewed as customers who require reliable information about the quality of the product they are having, and the competition for these students is seen as improving the quality of the product (Ashwin et al., 2015). Tuition fees provided a unique demand to satisfy the needs of a diverse group of students, to train academic faculty for teaching responsibilities, and to favourably and proactively select good educators or educational innovators for these jobs (Strike, 2015).

Quality was defined in the *Higher Education and Research Act 2017* as ‘how, and how well, the higher education provider supports students to enable them to achieve their award’ and there has been a systematic attempt to engage students in this (Coates, 2005; Little & Williams, 2010). The emphasis on improving university teaching started first in the *White Paper: Education and Training for the 21st Century* (1991) that high-quality further education or training should become the norm. The *Dearing Report* (1997) further outlined and introduced requirements for programmes’ intentions (learning outcomes).

This move to an outcomes-based approach shifts the learning emphasis from teachers to students (Dillon, 2005). Therefore, whether professional development for academic staff should focus on improving teaching or how to enhance the environment for learning remains a key issue.

In addition, quality assurance has been a long-discussed topic for higher education in the UK. In the *White Paper: Higher Education: A New Framework* (1991), the government proposed a quality assurance regime which would for the first time bring the regulation of all institutions' teaching and learning activities within an overall statutory framework. The framework was a dual quality assurance regime consisting of, first, an assessment by the higher education funding councils (the non-governmental organisations allocating public funds for teaching and research to the higher education institutions) of the quality of teaching and learning at the subject level in institutions, and second, the audit by the Higher Education Quality Council (HEQC) (an agency owned by the institutions through their representative bodies), the Committee of Vice-Chancellors and Principals (CVCP) (now Universities UK), the Committee of Directors of Polytechnics (CDP) and the Standing Conference of Principals (SCOP)) of institutions' quality control mechanisms (Brown, 2004).

The dual system was replaced by a single quality agency, the Quality Assurance Agency for Higher Education (QAA) in 1997. Meantime, the National Committee of Inquiry into Higher Education under Lord Dearing made wide-ranging proposals on quality including a new quality 'infrastructure' of precepts and guidance covering both quality and standards in the same year.

The QAA (now Academic Review) established by the Higher Education Funding Council began working in 1997 on a new quality process, and the new methodology was agreed upon and introduced in England in October 2002 and the first audits were undertaken in early 2003. The university programmes are

therefore assessed by triangulating evidence from policy documents, observations and discussions (Risser, 2003: 93). After the quick experimentation with a priori accreditation, the government introduced output-oriented evaluation (Hoareau 2009: 189), which focused by no means exclusively on research output. Unlike in traditionally research-focused Humboldtian institutions, an array of performance indicators defined by the funding councils were considered, for example, access, non-completion rates, outcomes and efficiencies for learning and teaching, employment of graduates and research output.

Over the past 20 years, the approach to quality assurance has swung from one extreme to another in the UK. In the 1990s, the emphasis was on assuring the quality by the detailed scrutiny of both institutions and subjects. This method was replaced in 2001 by a lighter-touch approach based on institutional autonomy and self-regulation (Jackson & Bohrer, 2010). However, more recently, the government is again asking for a more closely regulated and accountable higher education sector.

Based on the policy review, the quality of higher education's output has always garnered the UK government's attention. While there is much support across higher education for the conceptions of teaching quality which underpin quality assessment, there are also many people who are doubtful about the emphasis which they perceive to be placed on presentational and procedural matters, possibly at the expense of matters of intellectual substance (Brown, 2004).

4.2.4 Teaching Excellence Framework

Gradually, with the concern that education quality should not be sacrificed in the drive for greater efficiency, more comprehensive assessments of teaching

performance emerged.

In 2016, the UK government introduced the *Teaching Excellence Framework* (TEF) as a metrics-based initiative to enhance the teaching quality of universities due to the 2016 White Paper narrative placing the emphasis back on teaching rather than on students' learning. One of the central ideas behind the TEF is that in order for institutions to justify that they are raising fees in line with inflation, they need to show that they are offering students a high quality undergraduate education (Ashwin, 2017). This means that the fees that students are charged should reflect the quality of the teaching they experience. In addition, it is expected that the TEF should provide students with information for making choices about what and where they study; raise the profile of teaching and ensure that it is better recognised and rewarded; and lead to higher education better meeting the needs of employers and industry (Ashwin, 2017).

TEF rates universities as Gold, Silver or Bronze, and the judgements are based on assessment criteria that examine teaching quality, learning environment and student outcomes. However, how these criteria were selected and why others, for example, teaching expertise, were excluded remains unclear (Ashwin, 2020). Moreover, the National Student Survey (NSS) is included to ascertain students' views of their university experiences with the intention that the information can help universities assess their teaching provisions and address issues that may impinge on a positive student experience (HEFCE 2017). However, criticisms of the NSS results' validity centre on the difficulty of ensuring rigour in data collection and establishing the obtained information's quality. Whilst a commitment emerges to measuring gains in learning quality assessments and teaching in the future, the current heavy reliance on the NSS remains a considerable limitation in discussions of teaching quality (Kelly et al., 2017).

As discussed, although TEF is now considered the framework for assessing education quality in the England, weaknesses arise around the focus on the institutional level, the dated evidence that informs the metrics, and the lack of a coherent view of excellent teaching that informs the TEF (Ashwin, 2020). In addition, world-class universities, as described as global research-intensive universities, may not necessarily do well in the TEF referring to those criteria. Therefore, how teaching quality in various types of universities is interpreted cannot simply be covered by TEF.

Moreover, according to Brown (2004), quality is best protected by institutions' own quality arrangements, which reflect and reinforce the values and professionalism of the staff. In other words, instead of national schemes for enhancing quality education, institutions and individual staff in higher education can be more critical and influential.

4.3 Higher Education and Teaching Quality in Canada (British Columbia)

Canada is a federation and the Canadian Constitution delegates responsibility for education to the provinces. The provinces have legislative and regulatory authority over higher education, and there are substantial differences in system arrangements, funding mechanisms, and governance structures by province (Shanahan & Jones 2007; Fisher et al. 2009). Therefore, the higher education policy landscape in Canada is highly decentralised. Although there is no national ministry or binding policy lever for higher education (Gopaul et al., 2016), the federal government plays a major role in a number of policy areas that have significant impacts on universities, for example, financial assistance for research and education (Fisher et al. 2007).

Canadian higher education has roots in British and French traditions. It is a nation in a continent where the United States is the primary environmental influence (Axelrod, 1995). Higher education institutions in Canada have historically acted as a mediator between the demands and needs of federal and provincial governmental bodies and the broader society, negotiating ideas of public and private goods through their professional and disciplinary expertise and judgments (Jones & Weinrib, 2011).

Under the context of globalisation, Canada's federal and provincial governments have moved towards adopting policy approaches to higher education that are designed to stimulate competition (Jones & Young, 2004). In addition, the literature suggested four trends that directly impact academic work in Canadian universities, especially for research and teaching, including

- The rise of accountability frameworks and managerial regimes (Slaughter & Rhoades, 2004);
- The commercial influence over research activity through targeted funding initiatives (Fisher et al., 2001; Metcalfe, 2010);
- The increased debate over the division of teaching and research by full-time faculty (Clark et al., 2011; Gopaul et al., 2016);
- The prominence of faculty unionisation (Dobbie & Robinson, 2008; Gopaul et al., 2016).

These characteristics of higher education development in Canada lay the foundation for higher education development, including education quality. The detailed explanation is illustrated in the following sections and *Section 6.3 Case 3: Maple University (Canada)*.

4.3.1 Policy Overview

The federal government of Canada does not have an education or higher education ministry, and the majority of relevant policies and initiatives are issued from other ministries or departments, for example, Employment and Immigration Canada. Additionally, with the high degree of autonomy at the provincial level, it is essential to examine the provincial context. Thus, I have compiled a list of pertinent policies and initiatives at both the federal and provincial levels. Furthermore, in Canada, apart from government authorities, academics from universities and third-party agencies also play a key role in the development of higher education in the Canadian setting. The information is presented in the following two figures.

Figure 6. Policy Overview of Canada

Note. Information collected, analysed, and designed by the author.

Figure 7. Policy Overview of British Columbia

Note. Information collected, analysed, and designed by the author.

Higher education in Canada started to expand in the 1960s. In particular, massification became massive in British Columbia from 1988 to the late 1990s. In British Columbia, there are two significant reforms for expansion, *Access for All* and encouraging the private higher education sector. The former is for expanding and upgrading public institutions, and the latter is for developing private institutions.

Operating in a highly decentralised system guarantees institutions with great autonomy to develop by themselves, which leads to the diverse development of each university. Therefore, instead of contextualising universities in national and provincial discourses, it is more credible to focus on the institutional context.

4.3.2 Funding Structure

In Canada, public funding for higher education institutions in Canada consists of grants from both the federal government and provincial governments, and the provincial grant is usually the majority. Funding for higher education is generally linked to the national and provincial economy, and the government tends to reduce grants for the higher education sector. For example, in 1982, the Canadian government's university funding comprised 82.7% of operating revenues; by 2019, that percentage fell to 45.8%[7] (Statistics Canada, Survey of Financial Security).

In response to the government grant cut, the provincial government raises tuition, especially for international students. The Canadian funding structure of the higher education sector has become a high tuition and high student loan situation. Although the central and provincial governments provide more

[7] https://www.cmec.ca/299/Education_in_Canada__An_Overview.html

financial assistance, higher education becomes an ‘expensive business’ for students, especially those from less prestigious backgrounds.

4.3.3 Teaching Quality

At a national level, Canada has a relatively unusual model of decentralised governance for higher education (Jones & Weinrib, 2011). The fact that there is no national higher education department or legislation means that higher education policy is formulated and implemented by the provinces and territories, and there are major differences by the jurisdiction in system design, institutional types, basic funding and tuition arrangements, and expectations for academic practices (Jones & Weinrib, 2011). While each province and territory operates under different sets of legislative processes and local needs until recently quality had not been defined as a core issue for debate and action, primarily due to the assumed homogeneity of Canadian university standards, especially at the undergraduate level (Marshall, 2004).

Even though education quality in Canada is not easily summarised based on the national policies or regulations, Canada’s university-quality assurance system is multi-layered, comprehensive and rigorous (Bryha, 2017). Canadian universities generally receive the authority to grant degrees from provincial legislation (a few universities still retain charters). Under this authority, each Canadian university is autonomous in academic matters and determines its own quality assurance standards and procedures. These institutional strategies are formal, transparent and coupled with an external review by the relevant provincial quality-assurance authorities. For some professional programmes, the institutional design also undergoes professional accreditation (Universities Canada)[8].

[8] https://www.univcan.ca/universities/quality-assurance/

Further, support arises for a Canadian Degree Qualifications Framework and a commitment to a common framework of quality standards across all Canadian provinces. Therefore, Canadian universities have a shared understanding of the value of one another's academic credentials and the high-quality standards to be recognised internationally.

In British Columbia, the quality of higher education is maintained and enhanced through internal academic programme reviews. This process includes a mandatory review of all new and substantively revised programmes by each university senate. Public universities annually report their quality assurance activities for new and existing programmes to the Minister of Advanced Education. The Degree Quality Assessment Board, a minister-appointed, independent body established through the Degree Authorization Act, implements the external review of university-quality assurance processes. Following the internal review by the university's senate, the board performs a second review to ensure that new degree programmes and substantially revised degree programmes meet consistent, high-quality criteria.

To summarise, teaching quality and quality assurance in Canada are different from one university to another, coupled with the external reviews from provincial authorities or independent bodies appointed by the provincial government. This approach not only assures a high level of autonomy for universities when it is to academic practices but also provides a certain degree of shared standard for different institutions.

4.4 National Context for Engineering Studies

This research aims to investigate engineering programmes for undergraduates

in different countries. Overall, engineering is recognised as an important profession for national development (Lin, 2017). Engineering is essential to the growth and development of a nation's economy and to enhance the quality of life for its citizens (Beaudreau, 2005; Edwards, 2015). As such, there is an important link between a country's engineering capacity and its economic development (Royal Academy of Engineering, 2016:1). Therefore, engineering degrees usually received more instruction and support from the government. From the disciplinary perspective, engineering studies connect scientific concepts with practically focused research and offer systems and procedures that provide new methods of knowledge acquisition. This integration makes engineering essential to industrial innovation success (Thursby, 2014). In the following paragraphs, a brief background of the engineering degree from China, the UK and Canada are presented.

In China, engineering studies is one of the key disciplines to support national development. In 2006, the State Council of the People's Republic of China issued the *Notice by the State Council of Issuing the National Medium- and Long-Term Program for Science and Technology Development (2006-2020)*[9] with clear instructions on emphasising the energy, water and mineral resources, environment, agriculture, manufacturing, transportation, information industry and modern services, population and health, urbanisation and urban development, public safety, and national defence, in which engineering is one of the most important disciplines integrated and involved in all these key areas. As a result, more attention is paid to engineering education. In addition, in Tu's (2007, p. 6) study, he gave the idea of 'total engineering education' that suggests taking the disciplinary characteristics of engineering as an approach to develop other disciplines. In other words, the philosophy of total engineering education is to develop students' ability to solve practical problems with a

[9] http://www.pkulaw.cn/fulltext_form.aspx?Gid=73393

multidisciplinary approach. Total engineering education emphasises a holistic perspective on the world and advocates that non-engineering students should also have a basic understanding of engineering studies.

Additionally, established in 2015, the China Engineering Education Accreditation Association [10], a national social organisation composed of institutions and individuals related to engineering education, was established in 2015. It is mainly responsible for the organisation and implementation of engineering education accreditation, which further developed standardised engineering education in China. This is to say, engineering studies, especially at the university stage, are significantly encouraged and supported by the Chinese government.

In the UK, engineering also received increasing support from the government through funding allocation[11], and the direct economic contributions are made by engineering sectors, in terms of Gross Domestic Product (GDP) and employment (Centre for Economics and Business Research, 2015).

The engineering degree is also an accreditation degree in the UK. The Engineering Council[12] is the regulatory body for the UK engineering profession, and it sets and maintains internationally recognised standards of professional competence and commitment. Accreditation is carried out by individual professional engineering institutions under licence from the Engineering Council. The council has a close relationship with institutions and academics who are offering engineering courses.

[10] https://www.cast.org.cn/

[11] https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/datasets/scienceengineeringandtechnologystatisticsreferencetables

[12] https://www.engc.org.uk/about-us/

In Canada, various reports have assessed the contribution of engineering studies to economic development (see, e.g. The Conference Board of Canada, 2016). Engineers Canada [13], as the regulatory body for the Canadian engineering profession, has multiple responsibilities including:

- Accrediting undergraduate engineering programs;
- Facilitating and fostering working relationships between and among the regulators;
- Providing services and tools that enable the assessment of engineering qualifications, fostering excellence in engineering practice and regulation, and facilitating the mobility of practitioners within Canada;
- Offering national programs;
- Advocating the federal government;
- Actively monitoring, researching, and advising on changes and advances that impact the Canadian regulatory environment and the engineering profession;
- Managing risks and opportunities associated with mobility of work and practitioners internationally;
- Fostering recognition of the value and contribution of the profession to society and sparking interest in the next generation of professionals;
- Promoting diversity and inclusivity in the profession that reflects Canadian society;
- Protecting any word(s), mark, design, slogan, logo, or any literary, or other work, as the case may be, pertaining to the engineering profession or its objects.

Based on the public reports, Engineers Canada has an impact on the federal

[13] https://engineerscanada.ca/about/about-engineers-canada

government's priority through submitting recommendations to the House of Commons Standing Committee on Industry, Science and Technology. It states the role of engineering in Canada's long-term recovery for economics (especially after the COVID-19 pandemic), which further enhance the importance of engineering studies.

4.5 Conclusion

To summarise, this chapter has presented the operating context of higher education in China, the UK, and Canada from a policy perspective with a focus on funding structure and education quality.

Adapted from Clark's (1986) triangle of coordination, higher education systems are positioned differently in three countries. Chinese higher education has always been close to the nation's development, and it is prone to state authority. In addition, the market has an increasing impact on higher education in China by adopting concepts including but not limited to the evaluation of academic practices and the idea of 'student as customer'. In the UK, higher education used to be influenced by both market and academic oligarchy but is now increasingly guided by the state authorities through various relations and schemes. Canadian higher education is unconventionally decentralised. Therefore, the position is considered to be less close to the state authorities than in the UK but traditionally closer to the market, and similar to the academic oligarchy in the UK. The visualised changes are presented in the following two figures.

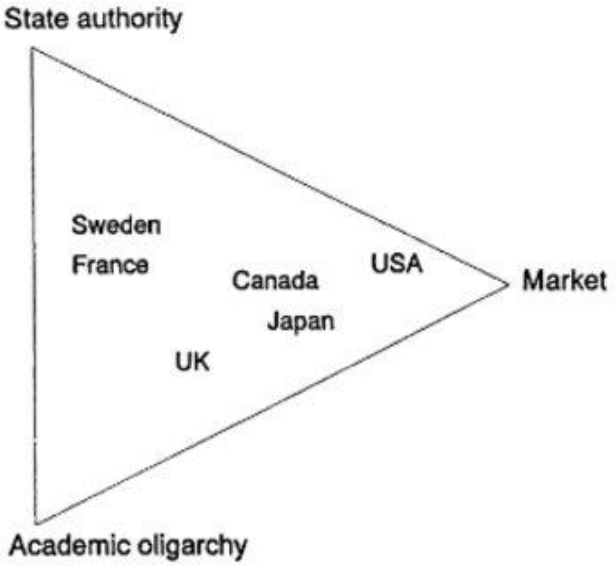

Figure 8. The Triangle of Coordination (Clarks, 1983)

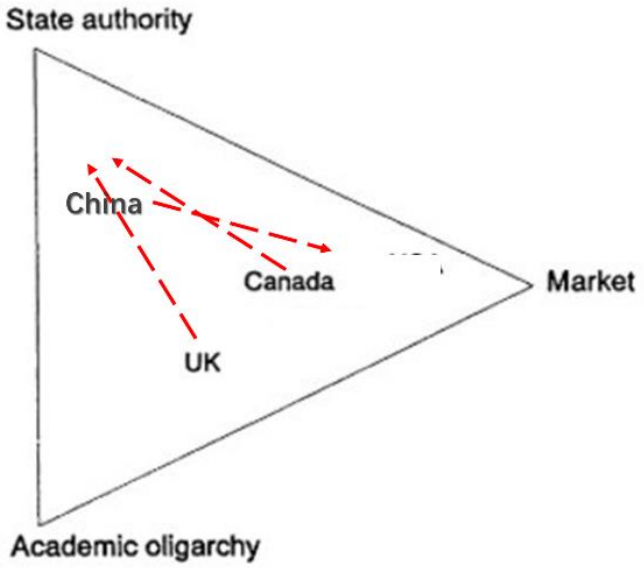

Figure 9. The Change in the Position of China, the UK and Canada in the Triangle of Coordination

Note. The positions are not accurate in distance but to elaborate the shifts

The main trends in higher education finance over the last decades for most countries are the diversification of funding and changes in the financial relations between the universities and the government (Chevaillier, 2002). Since the access to information and the calculating approaches are not entirely the same

among different countries, simply comparing the funding structures without further data may not lead to credible results. What can be certain is that government funding remains a large proportion of institutions' operating revenue in China and Canada, while tuition fee becomes the highest proportion in the UK. Taking into account the differences among universities, detailed financial information is presented in *Chapter 6 Case Studies: Findings from Chinese, British and Canadian Universities*.

As for teaching quality, China, the UK and Canada are all paying more emphasis in the context of global competition and the demand for more efficient and effective public fund allocation. In addition, China has a long history of emphasising teaching in higher education, which is widely recognised by various stakeholders of higher education. The national government has set a clear structure and schemes for assessing and enhancing education quality.

For the UK, one of the reasons for enhancing teaching quality is the rising tuition fee that students are paying for having education as a service. On the one hand, universities are more 'on their own' regarding revenue and expenditure. On the other hand, they have relatively greater flexibility when it comes to the institutional priorities of academic practice. Moreover, quality assurance in the UK is developing with a more standardised performance indicator.

In Canada, the influential initiatives may not always come from the federal or provincial government but from individuals, universities, associations, and committees. The highly decentralised system is the reason that higher education quality cannot be easily assessed at the national level, whereas to be enhanced systematically. Nonetheless, at the provincial and institutional levels, education is contextualised and evaluated for better quality.

Although this research does not focus on the national policies of higher

education, governments have set the overarching framework for universities to develop. Universities respond to the national requirements and incorporating certain values and concepts into their management. For this study, understanding the national context is valuable in both explaining the institutional strategies and providing empirical evidence in the field for policy adjustments.

Chapter 5 Methodology

This research investigates how world-class universities' institutional strategies address and influence undergraduate teaching with a focus on teaching quality. To proceed, I have implemented case studies, analysing three universities: each in China, the UK and Canada. I have chosen the case study framework for its advantage of exploring and describing the research objects in a real context (Yin, 1984) and helping to explain the complexities of real-life situations (Zainal, 2007). The main methods of collecting data include documentary analysis and interviews. The value of documents is to gather the institutional strategic decisions of undergraduate-teaching development. This data includes universities' strategies for overall development as well as educational strategies for undergraduate teaching. The participants for interviews are the faculty and departmental leaders, administrative staff of undergraduate teaching, and academics who have undergraduate-teaching assignments. The details are introduced in the following sections.

5.1 Epistemology and Ontology

For this study, I applied a constructionist/interpretivist approach, which fits with 'the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of the interaction between human beings and their world, and developed and transmitted within an essentially social context' (Crotty, 1998, p. 42). Interpretivist/constructivist approaches to the research aim to understand 'the world of human experience' (Cohen & Manion, 1994, p. 36), suggesting that 'reality is socially constructed' (Mertens, 2019, p. 12). The interpretivist/constructivist researcher tends to rely upon the 'participants' views of the situation being studied (Creswell & Creswell, 2017, p. 9). Constructivists do not generally begin with a theory; rather, they 'generate or inductively

develop a theory or pattern of meanings' (Creswell & Creswell, 2017, p. 9) throughout the research process. The constructivist researcher is most likely to rely on qualitative data collection methods and analysis. To contextualise the approach into practice, I determined this paradigm fits the research design because this research is inductive and starts without a certain theory and the aim was to generate common knowledge from the data. One trajectory was that the main analytical framework, the community of practice emerged after the analysis of data but it was comprehensively explained in the theoretical and analytical framework.

Therefore, qualitative data was required to better answer the research question: how institutional strategy addresses undergraduate teaching in world-class universities. In more detail, this research aimed to answer three questions, including how institutional strategies in world-class universities address undergraduate teaching. How do institutional strategies affect lecturers in undergraduate teaching in world-class universities? And what are the implications for balancing teaching and research in world-class universities? This research sought to interpret and analyse the perceptions, attitudes and understandings of the individual participants (Creswell & Poth, 2016) regarding institutional strategies at world-class universities. Knowledge was then interpreted from the perspective of the individual's own construction of experiences and prior knowledge (Mascolo et al., 2005). The findings in this study mainly emerged from interactions between the researcher and the researched (myself and the interview participants).

As for the ontology, I applied a stratified ontology to see how a single phenomenon of one level (undergraduate teaching) might be influenced by other levels, including global, national institutional, faculty and departmental structures. Therefore, this research tried to cover all these levels' contexts to provide a comprehensive picture of this topic.

5.2 Research Methods

In this research, I aimed to explore the depth and comprehensiveness of the topic by investigating the impact and interaction of institutional strategies and undergraduate teaching. I decided to apply qualitative methods to provide more details and answer the questions of ‘how’ and ‘why’. These methods prove especially powerful when studying organisational phenomena (Patton, 2002). To stay in line with my theoretical and analytical framework, I first collected data through documentation and then through interviews. The full descriptions are illustrated as follows.

5.2.1 Case Study

I adopted the case study method to collect rich data and generate a thick description (Geertz, 1973; Clegg & Stevenson, 2013) on the topic of the institutional strategy of world-class universities and their interaction with and impact on undergraduate teaching.

Many scholars have advocated the use of a case study design to investigate organisational change (Kondakci & Van den Broeck, 2009). The case study, which can open up a rich variety of data sources, is considered to be an effective strategy for depicting social phenomena within a real-life context, especially when the boundaries between a phenomenon and context are not evident (Yin, 1984; Creswell & Poth, 2016). Yin (2012) recommended using a case study when ‘“how” and “why” questions are being asked about a contemporary set of events, over which the investigators have little or no control’.

Scholars and academics sometimes criticise the case study as being weak because the results are not generalisable when a case study focuses only on a handful of instances (Swanborn, 2010). Yin (1984), however, argued that case studies could be generalisable, providing that 'analytic' generalisation and a previously defined theory are used as a template for testing empirical results. This view aligns with De Vaus (2001), who suggested that since cases are used for theoretical rather than statistical generalisation there is little point in selecting cases because they are in some sense representative of some wider population. Moreover, the case study enables researchers to explore significant features of the case and to present interpretations of observations conducted in their natural context (Bassey, 1999, p. 47). Because of this closeness to real-life situations and the wealth of detail that it generates, a case study makes it possible for a researcher to gain insights into the deeper causes behind a given problem and its consequences in a particular situation (Flyvbjerg, 2006). Hence, I felt that the case study was the most appropriate method for investigating the organisations thoroughly and gaining insights into individuals' attitudes, understanding and perceptions towards the institutional strategies and their influence on undergraduate teaching.

Case studies comprise several subtypes: e.g. illustrative, exploratory, critical instance, programme implementation, programme effects, and cumulative case studies (Hayes et al., 2015). In this research, I applied the exploratory case study, which focuses on real-life contexts. Typically, exploratory case studies are used to identify research questions and methods for large and complex studies. Therefore, the main purpose of an exploratory case study is to help identify situations for the further research process. I chose this framework because this research had fewer prior empirical studies and aimed to investigate the research field through an exploratory lens to provide implications for larger-scale investigations.

In this study, identifying similar world-class universities in terms of rank, location (city-level consideration), university scale, faculty scale and other elements related to teaching and learning could better generate credible results and generalised findings. Because I was studying world-class universities on a global scale with the consideration of generating findings from different contexts, the case study had the advantage of illuminating the understanding of how the dynamics of globalisation play out within individual institutions (Marginson, 2007). According to Vidovich, O'Donoghue and Tight (2012), carefully selected individual case studies across different national contexts might contribute to building a 'global case' of a particular higher education–policy phenomenon. This global case could lead, for example, to developing a typology of particular policy transformations across the globe. Moreover, studying the concept of world-class under the global context could provide valuable information, possibly generating a certain level of similarity and differences in conceptual perspectives and empirical practices. At the individual level, presenting studies from different countries could also uncover more convincing evidence regarding similar perceptions among individuals from different national contexts or higher education systems. Thus, such findings could generate widely acceptable generalised recommendations. The details of the selected institutions as cases are illustrated and explained in the sampling section.

5.2.2 Documentation – Institutional Strategy

Ascertaining the meaning of a document is crucial. The process involves understanding the information relayed and the author's underlying values and assumptions, as well as any arguments developed (Cohen & Manion, 1994). In this research, the documents analysed comprised the selected universities' strategic documents.

When implementing an institutional strategy, the university strategy is first analysed, which is hierarchically the organisation's highest strategic document (Tilles, 1963; Johnson et al., 2009; Nickols, 2016). In the university context, it is primarily the long-term developmental strategy. This strategy defines the overall institutional goals and direction, as well as the way in which all of them will be achieved via strategic management activities (Easterby-Smith, 1987). Based on the theoretical and analytical underpinnings of this research, the influences on undergraduate teaching are not only the decisions made directly for the educational practice but also other university aspects and features. Therefore, analysing the university strategy provided a potentially broader scope. Additionally, I looked into the universities' teaching and learning strategies, which are more directly related to undergraduate teaching with detailed decision-making and practices. The teaching and learning strategies primarily covered all levels of study: namely, undergraduates and postgraduates, and, sometimes, adult learning. However, I specifically focused on undergraduate teaching.

Flick, von Kardoff and Steinke (2004) illustrated that official documents represent institutionalised traces that can be used to reach conclusions about the activities, intentions and ideas of the organisations they represent. From this standpoint, all official documents constitute evidence about the formal organisational culture that may construct the overall atmosphere and both, directly and indirectly, influence the practice.

One of the potential problems with official documents can be the focus and purpose of the strategic documents. They can be aspirational or factual. Sometimes, the strategy can be presented in the way of a visionary document instead of one that defines the mission. In other words, institutional strategy can be too general or impractical. Therefore, from the analytical perspective of this research, analysing the strategic documents alone was not enough to answer

the research questions. As a result, unclear details are checked in interviews. In general, this method was implemented for answering the first research question and providing implications for the second and third research questions.

Bowen (2009) also identified some limitations regarding document analysis. These limitations relate to insufficient details for answering a research question, given that documents are produced for some purpose other than research. Furthermore, documentation is sometimes not retrievable, or retrievability is difficult. Sometimes, the access may be deliberately blocked, or the possibility for biased selectivity arises: i.e. available documents reflect the emphasis of a particular organisational unit (Bowen, 2009, p. 32). As a result, I applied an additional research method to further support data collection: namely, the interview. The details are given in the following section.

5.2.3 Semi-Structured Interview

Interviewing is an effective way to access people's perceptions, meanings and definitions of situations and constructions of reality (Punch, 2013). This method is valuable for collecting personal opinions via conversations (Warren, 2002; Pickens, 2005; Edwards & Holland, 2013; Austin & Sutton, 2014). When interviews are implemented with participants, a fuller picture of the researched field can be constructed. With the aim of presenting comprehensive cases on this research topic and collecting information from individuals, I found the interview the most suitable approach.

Interviews can be structured with questionnaires to seek specific answers: e.g. semi-structured interviews with guided questions, which allow more flexibility or unstructured interviews, which allow for an open-ended discussion (Gubrium & Holstein, 2001; Blaxter et al., 2010; Jamshed, 2014). The distinction between

these techniques is the extent and nature of the predetermined questions.

For this research, I applied semi-structured interview because of its flexibility with structure. This type of interview falls between structured and unstructured interviews. On the one hand, by referring to the literature review, theoretical and conceptual studies, and document studies, I framed a certain number of questions that required me to ask for data to answer my research questions. On the other hand, with fewer empirical studies, I needed flexibility during the interview to further probe the relevant issues.

By applying the semi-structured interview, I first designed my interview guide with questions based on the literature review and the research purpose to draw out how individuals understand and perceive the university's institutional strategy and its influence on undergraduate teaching. Patton (2002) identified several types of questions that explore opinions/values, feelings, knowledge, sensory perceptions and backgrounds/demographics. The broad, performed questions primarily comprised the opinion/value type, as the research aimed to detect individuals' perspectives. For the interview, I designed seven sections as a guide:

- Demographic information,
- Academic background and career journey,
- World-class university and institutional strategy,
- Teaching belief,
- Institutional strategy and teaching,
- Teaching and research,
- In-campus activities and out-campus activities.

The detailed questions are presented in the appendix. The first two survey sections addressed the participant's background/demographic and their experience as an academic. The following questions addressed the

participant's opinions, feelings, knowledge and sensory perceptions about world-class universities and their institutional strategies, teaching practice, teaching beliefs, teaching and research, as well as on-campus and off-campus activities.

Interview questions can be closed- or open-ended. Each type of questioning carries disadvantages and advantages (Bryman, 2004). The open-ended questions allow the participants to provide an answer in their own words, which can generate more diverse and subtler data for the research questions (Knapik, 2006). This type of questioning also provides more clarity during the communication process between the interviewer and interviewee. The advantage of closed-ended questioning arises from the ease of processing and coding the data. However, spontaneity is lacking in terms of responses, and opportunities to explore new knowledge may be overlooked. Forced-choice questions do not allow for explanations, which can lead to participants misunderstanding or interpreting a question in various ways. Because this research's interview format is designed as semi-structured, it includes more open-ended questions. I believed this approach was a better fit for my constructivist approach to building meaning through dialogue. I accepted that the interviews would probably require more time, and the answers to the questions would be more challenging to code. However, I believed that allowing (a) my interviewees to provide detailed answers based on their perceptions and opinions and (b) myself the ability to probe for more information and provide opportunities to 'verify the answers given' (Kvale & Brinkmann, 2009:65) would far outweigh any disadvantages of applying open-ended questions.

The predetermined questions acted as my guide for the interviews. However, they did not represent the totality of the questions or the communication between the interviewer and interviewee. The performed questions were developed and supplemented during the interview with probing questions to

elaborate and extend the responses given: (e.g. ‘in what way…’, ‘what do you mean with…’, ‘why do you think…’, etc.). Such questions prompted the participants to expand their initial responses and provide additional details, clarification and further information. As much as possible, I tried not to hinder the flow of the interview and only interrupted when I realised that a new space had opened up in our conversation. The probing questions, by their nature, could not be predetermined, as I intuitively used them to encourage interviewees to elaborate, clarify or extend their responses. Therefore, the structure and themes of each interview could slightly differ from each other.

5.2.4 Pilot Study

After passing the ethical requirements, I conducted a pilot study from 11 May to 18 May 2018. The purpose of conducting a pilot study is to test the interview to determine the time commitment required and the communication approach’s effectiveness. Most important is whether the interview guide can help obtain the necessary data. With the consideration of disciplinary differences, I needed to acquire an overview of various disciplines and the potentially influential factors to decide which area I would study.

The criteria of sampling for the pilot study were representativeness and convenience. Accordingly, I used my relationships (from working as an intern in 2016) to initiate contact with two lecturers in one of the world-class universities in Shanghai. These instructors are from the disciplines of natural sciences and social sciences, respectively. With their help, I was able to contact nine participants for my pilot study. The demographic information is categorised as follows:

Category	Interviewees (*n* = 9)			
Discipline	Natural Sciences	Social Sciences	Arts and Humanities	
	3/9 (33.3%)	3/9 (33.3%)	3/9 (33.3%)	
Gender	Male		Female	
	5/9 (55.5%)		4/9 (44.4%)	
Age	30–39	40–49	50–59	60–69
	2/9 (22.2%)	4/9 (44.4%)	2/9 (22.2%)	1/9 (11.1%)
Marital Status	Single		Married	
	0/9 (0%)		9/9 (100%)	
Academic Status/Rank	Lecturer	Senior Lecturer/ Associate Professor	Professor	
	0/9 (0%)	6/9 (66.6%)	3/9 (33.3%)	
Academic background	Non-PhD degree		PhD degree	
	0/9 (0%)		9/9 (100%)	

Table 4. Demographic Information of Participants for the Pilot Study

Each interview lasted about 35 minutes and was tape-recorded. The data was transcribed but not analysed with themes.

When implementing this pilot study, I first confirmed that a semi-structured interview with mostly open-ended questions was the best approach for collecting data from participants. The communication between participants and myself could generate rich information on the research topic. I also added several interview questions to the guide for the formal fieldwork, which most of the participants had mentioned during the pilot study. Moreover, according to the data collected in three different disciplines, I did not find any major differences or decisive factors among particular disciplines, which meant that any single discipline could meet the research objective as long as I stuck to the same field in all the cases.

I decided to study engineering subjects, owing to the discipline's diverse

teaching methods. The teaching methods for engineering are more diverse, including traditional lectures and seminars, as well as laboratory teaching, experiments and fieldwork. The teaching method is one crucial element of teaching. These methods served as an important aspect for investigating the potential influence of institutional strategy on teaching. Furthermore, the engineering discipline's nature forges a closer relationship with the university's funding strategies and other types of resources. According to my conceptual and analytical framework, resources and resourcing were of the most importance in this research. Thus, investigating the engineering discipline could provide more details on available resources and how they are utilised.

The pilot study was conducted within a rather short time. Although it provided various perspectives to get to the bottom of this research, it had its limitations. First, because of the limitation of time and focus, I did not see any differences between male and female academics in terms of their roles and responsibilities in both work and familial contexts. Notably, some studies have identified gender as an influential factor that generates different attitudes towards teaching, promotions and satisfaction (see, e.g. Ginther & Hayes, 1999; Okpara et al., 2005; Subbaye & Vithal, 2017). Second, all the participants were senior lecturers and above. This demographic missed the potential variable of a job title. Various job titles can relate to an academic's experience and promotion system and, therefore, help a researcher generalise a conclusion and recommendation in terms of this demographic information. However, this deficiency was solved when sampling all ranks of academic staff in the formal fieldwork.

In addition, I have conducted an unintended focus group owing to miscommunication. After having nine interviews across three disciplines, I had further contacted by another professor from computer sciences. As a consistent strategy for the pilot interview, I asked him to introduce two more academics. I

intended to have one-to-one interviews with these three participants, but the professor was bringing another two academics together with him when we met for the interview. Therefore, I was having a group interview instead of three one-to-one interviews. The location for this focus group was decided by the professor I first contacted and it was at the university canteen. The interview lasted for about an hour during the lunch break. In summary, the group interview did not achieve the purpose of collecting enough information on how academics perceive institutional strategy because the participants tended to talk more about what they shared in common or office gossip instead of the interview questions. On the one hand, it is because the environment of the canteen was distracting and it was difficult to keep the conversation seriously and academically. On the other hand, as an early-stage PhD candidate, it was not easy for me to keep interrupting the conversation between professors because of the traditional culture and ideology of ‘respecting teachers’, which gives me pressure on being ‘impolite’ to interrupt their discussion, even when it is irrelevant to my questions. However, this experience gave evidence of why the one-to-one interview is a better method for collecting data. In addition, even though the focus group does not fit my research design, it can be effective for the research applied with grounded theory and unstructured interviews to collect information from the conversation among participants.

There are some reflections that arose for further fieldwork. First, the participants’ demographic information would be collected systematically and with more details, including academic background and career-path development. Second, the details related to undergraduate teaching in the institutional strategy would be addressed, especially the corresponding movement at the institutional, faculty and departmental levels. Last, the pilot study was based on a Chinese university, and the context differed significantly when I investigated universities in other countries. Therefore, the interview guide might require revisions in particular cases.

5.3 Sampling

Becher and Kogan (1992) argued that higher education systems typically comprise four distinct tiers: the central authorities, individual institutions, basic units and individuals. The central authorities include both governmental and quasi-autonomous bodies. The individual institutions are located within several basic units. These individual units are characterised as having academic responsibilities for an identifiable course or group of courses, controlling operating budgets and exercising some element of choice in the recruitment of professional colleagues and often students. The category 'individuals' incorporates both academic and non-academic staff. Two complementary perspectives could be used to examine world-class universities: (a) external forces, which include national and regional governments that provide resources to enhance the institution's stature; and (b) internal factors, which are linked to the necessary evolution and steps that institutions take in trying to become world-class universities (Salmi & Liu, 2011).

In this research, I had to sample my cases and focus on the institutional level that incorporates operating units (faculty and department) and the individual level (academic and non-academic staff). The central authorities from the governmental perspective were considered as the operating environment for the institutions.

To better reflect on the global context, I selected universities in Asia, Europe and North America. I first decided to study the UK (England) and China (Mainland) as they represented Asia and Europe, respectively. For North America, I first considered the United States. However, only one university fit the criteria of a public, comprehensive, research-intensive university, and

access was limited. Therefore, I chose to study the Canadian context. These three countries also attract enormous attention from academic, political and economic perspectives. Furthermore, these systems also have a relatively larger number of undergraduate students. Therefore, the recommendations might be generalisable to other systems.

I found one institution in each country under the assumption that they shared similar ranking positions, degree of research intensity and economic resources. Moreover, I aimed to minimise the local communities' influence: for example, considerable disparities in the funding of higher education institutions due to various financial capacities. Therefore, I identified the economic and internationalisation levels of each city based on the GDP (gross domestic product) and the concept of a 'world city/global city' (Friedman, 1995; Sassen, 2016) which is a primary node in the global economic network and has a direct and tangible effect on global socio-economic affairs.

The cases for this study were world-class universities in the selected cities. The sampling criteria of the universities in this research involved validity and representativeness, as well as access and convenience. I reviewed the ranking systems, including QS, Times Higher Education and ARWU rankings, and found several suitable universities in China, the UK and Canada. Additionally, because this research was primarily based on a faculty level, I identified the cases with similar scales of engineering faculty in terms of number of students, number of staff, and the similar departments within. With the detailed study of each institution providing the background information, I selected the most similar pair as my research objectives under the assumption that they shared similar ranking positions, degree of research intensity and economic resources. To anonymise the university's identity, I assigned code names to each university and blurred the exact year, ranking, and the number of students and staff. The background information of three institutions is listed:

[14]	**Star University**	**Cross University**	**Maple University**
Location	People's Republic of China (China's Mainland)	The UK	Canada
Status	Public	Public	Public
Focus	Comprehensive Research University	Comprehensive Research University	Comprehensive Research University
Founded year	The 1900s	The 1800s	The 1900s
QS World Ranking (2020)[15]	Top 50	Top 50	Top 50
THE World University Rankings(2019)[16]	Top 100	TOP 50	Top 50
ARWU Ranking (2019)[17]	Top 100	TOP 50	Top 50
Student number[18]	31,000	33,000	52,000
Undergraduate/ postgraduate	48%/52%	54%/46%	84%/16%
International student ratio	11%	51%	27%
Staff number	4,500	6,100	6,300
International staff ratio[19]	36.9%	45.5%	34.6%
Number of student per staff (THE)[20]	12.2:1	10.6:1	18.1:1

Table 5. The Background Information of Star University, Cross University and Maple University

[14] The information of universities is collected from Wikipedia. However, because of the anonymisation of the universities, the link to the webpage cannot be given.

[15] The data was collected in 2021 on QS top university (https://www.topuniversities.com).

[16] The data was collected in 2021 on THE world university rankings (https://www.timeshighereducation.com/cn/world-university-rankings).

[17] The data was collected in 2021 on Shanghai ranking (https://www.shanghairanking.com/rankings/arwu/2021).

[18] The information is collected from university website. However, because of the anonymisation of the universities, the link to the webpage cannot be given.

[19] The data was collected in 2021 on QS top university (https://www.topuniversities.com). However, because of the anonymisation of the universities, the link to the webpage cannot be given.

[20] The data was collected in 2021 on THE world university rankings (https://www.timeshighereducation.com/cn/world-university-rankings).
However, because of the anonymisation of the universities, the link to the webpage cannot be given.

In this research, the disciplinary differences also required attention. Norton et al. (2005) found that teaching conceptions varied across different disciplines, and the nature of the disciplines probably explained such results. University teachers representing hard disciplines are more likely to adopt an information-transmission/teacher-focused approach to teaching, whereas teachers who represent soft disciplines are more likely to embrace a conceptual-change/student-focused approach to teaching (Postareff, 2007). Because disciplinary differences can be influential in this research, I selected similar disciplines in the area of engineering, which referred to the findings from the pilot study. Engineering is a discipline that uses maths and science to design, test and build machines, structures and processes. The discipline's characteristics include a dedication to fast development, as well as applicable and practical problem-solving implementation. Additionally, engineering incorporates multiple subjects. Because of engineering's high problem-solving orientation, I could investigate the teaching and learning approaches with more clearly defined parameters than with other disciplines. Moreover, engineering studies require less interaction with human behaviours and social interaction than the arts, humanities and social sciences. In other words, I expected more direct and clear answers with less likelihood that the participants would refer to or generalise their opinions with others; the individual's thoughts were paramount. However, a potential limitation could result from the participants expressing similar concerns and providing less in-depth answers.

To summarise, three levels of participants emerged in terms of institutional, faculty, and departmental. As I mentioned before, the university-level study was primarily achieved through documentary analysis, so the interview participants might not have held an institutional leadership role, such as provost or vice provost.

From the university's managerial perspective, each institution comprised leadership and various functional (academic and administrative) staff groups, servicing different user groups that required the services the enterprise offers. I chose a purposeful (or purposive) sampling strategy (Glaser & Strauss, 1967; Silverman, 2015). The goal was to select 'information rich' cases from which I could gain greater insights into the issues at hand (Patton, 2002) and maximise the relevance of the participants to the research questions (Bryman, 2016). This study included three university structural levels – namely, institutions, operating units (faculties and departments), and individuals (Brennan & Shah, 2000). Thus, the stakeholders involved in this research included leaders at faculty/department levels, academic staff and administrative staff. The criteria for selecting academic staff included gender (male/female) and job title (lecturer/senior lecturer or associate professor/professor).

Whereas I would have preferred to maintain a 50:50 gender balance, this aim was not possible because I focused on the engineering discipline, which hosts fewer female academics than males (per the public information on the university website). As for the job title, I ensured that at least one participant fit into each category.

5.4 Data Collection

The work of gathering the data began in mid-May 2019 and lasted for about 14 months. I first conducted the case in China from 20 May 2019 to 24 June 2019. The second case study was implemented in the UK from 7 October 2019 to 23 January 2020. The last case study investigated a Canadian university from 23 March 2020 to 13 July 2020.

As the fieldwork was undertaken in public universities, I had to obtain

endorsements from the relevant authorities (formal gatekeepers) to conduct research in these settings (Shenton & Hayter, 2004). To approach the participants, I first asked for consent from the Dean of Faculty of Engineering/Associate Dean of Education of the Faculty of Engineering. After obtaining consent from the faculty (as the formal 'gatekeeper'), the next step differed slightly from the Chinese to the UK and Canadian contexts. In the case study in China, I applied the snowball technique. The snowball technique (networking sampling) made it easier to connect with participants but risked potential bias because of oversampling a particular network of peers (Lee, 1993). However, in the Chinese context, a researcher would have difficulty approaching academics through public records. Therefore, I first connected with a professor (the Associate Dean of Faculty of Engineering) who was a personal contact of mine and asked for a referral to other academic and administrative staff.

In the UK and Canada case studies, I first studied the information of potential participants on the university websites and then emailed (three times at most) all the staff who met the criteria. I also applied the snowball technique when I needed more participants in specific positions. The combination approach worked well in the British and Canadian contexts.

I used a 'bottom-up' interview strategy, meaning I started with people in non-managerial or administrative roles. DeVault and McCoy (2006) suggested that the interviews with managers and administrators are best conducted in the later phases. Following this protocol, the researcher can use the information gained from frontline workers to direct the interviews with upper-level employees. Therefore, in practice, I first interviewed the academic staff, who were the main body of this research. Next, I interviewed the faculty- and departmental-level leaders. Sometimes the order could be changed due to participant availability. After interviewing most of the academic staff and faculty- and department-level

leaders, I approached the central office, which had the responsibility of undergraduate education at the university level. In China, I approached the staff who led the Academic Affairs Office; in the UK and Canada, the office is called Vice Provost Education/Academic.

All three cases comprised an institutional-level unit focusing specifically on teaching and learning. This department has various names and positions within the university structure, but each has a similar function. Understanding how this unit worked was essential in terms of communication and collaboration with academics, leaders and administrators on undergraduate teaching. Therefore, the next step was interviewing the staff from this unit. In China, this unit is combined with the Academic Affairs Office, whereas it occupies a separate unit in the UK and Canada. The detailed structure is presented in *Chapter 6 Case Studies: Findings from Chinese, British and Canadian Universities* and *Chapter 7 The Comparison of Case Studies*.

The last step was to interview administrative staff who worked with undergraduates from the selected faculty and departmental level. In summary, I aimed to triangulate my data to present a better picture with rich information from diverse perspectives.

The procedures for recruiting participants and interviewing share similarities. First, I introduced my research briefly and scheduled a time for the interview. Next, I sent the information sheet in advance through email. When it was time for the interview, I briefly introduced myself and described the research purpose. I assured the participants of anonymity and advised them that their names would not be published. Additionally, the data would not be used except for an academic thesis. Likewise, they were informed that the interviews would be audio-recorded. After having obtained their written consent, I began recording the conversations. I took hand-written notes on the participants who declined

to be recorded.

What is necessary to mention is that the first two cases were both conducted through face-to-face interviews. However, the last case was conducted through online communication platforms; the COVID-19 pandemic prevented travel to Canada for face-to-face interviews during the lockdown. According to the quality of data, there was no significant difference between the two approaches to interview.

5.5 Transcription and Translation

All interviews were recorded using two voice recorders. I fully transcribed them as soon as possible after the interview took place. After finishing all the transcripts, I conducted a preliminary analysis before the fieldwork of the next case. I followed this protocol because this research was inductive, and all the data from the field could prove valuable. The details were the key to answering the research questions. Moreover, having fully transcribed material is crucial for the thematic analysis – the method I applied for the data analysis. I first used a professional device called an iFLYTEK Recorder (SR501), which can generate transcription automatically into a preliminary text. Then I performed a detailed review to correct the mistranscribed text. In general, an hour-long recording took about three to four hours to transcribe. The English recordings took longer than the Chinese recordings.

English was used during the interviews at the universities in the UK and Canada. Chinese (Mandarin or the local dialect) was used in the case study in China. To avoid potential misunderstandings at the Chinese university, I introduced the keywords in English and explained them in Mandarin before the interviews. For example, the key objective, ‘institutional strategy’, would be directly translated

as ‘developmental strategy’. Although these terms are not significantly different, the focus of this research is at the ‘institutional’ level, so I provided a description and examples when saying ‘developmental strategy’ in Chinese but referring to the ‘institutional strategy’. An interesting aspect of this case was that sometimes the local participants (the majority of the participants in the case study at Star University) started speaking in the local dialect as they grew more comfortable talking. Because I am a local resident, I could understand them perfectly and respond using the same dialect. Therefore, my strategy was to ask each question in Chinese (Mandarin) but continue using the local dialect with the participants when discussing their responses. I adopted this strategy to help the participants feel more comfortable talking to someone who shared the same identity. However, using the local dialect could also create more misunderstandings or misinterpretations of the conversation. Therefore, I determined the best approach was to revert to Chinese (Mandarin) when proceeding with the next question. The transcriptions were analysed in the original language to avoid misinformation or misunderstanding. However, I translated the themes of the case study in China into English for the findings and discussion.

5.6 Data Analysis

5.6.1 Documentary Analysis – What the Universities Say?

Strategic documents pertaining to the three institutions were analysed using content analysis. All the information presented in the documents was collected as well. On the one hand, I followed this procedure to establish the case study’s context. On the other hand, the procedure enabled me to collect more details for the interview. Furthermore, I also aimed to identify the gap between what the documents stated and what was really happening according to the individuals’ perspectives.

5.6.2 Interview – Stories from the University Staff

Thematic analysis is used for analysing transcripts because it is well suited to identifying, analysing and reporting patterns or themes within data (Braun & Clarke, 2006). According to Braun and Clarke (2006, p. 82), ‘a theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set’. Braun and Clarke suggested that thematic analysis might be data-driven, whereby themes are deduced from the data without necessarily fitting them into a pre-existing coding frame or the researcher’s analytic preconception. Alternately, thematic analysis can be theoretically focused, whereby the themes that are coded are only those that fit in with the study’s research question.

The process of identifying themes in thematic analysis can follow one or two routes: deductive or inductive (Braun & Clarke, 2006). For this research, I applied the inductive approach (bottom-up) because I was interested in gaining the views of participants directly from the data, which would result in broad data for coding. As Braun and Clarke (2006) recognised, I acknowledge that my theoretical knowledge and epistemological stance might influence the coding. The interview data were analysed manually. NVivo (qualitative data analysis software) was not used because, on the one hand, it does not deal with the Chinese language satisfactorily. On the other hand, I needed to compare and recheck the data from different individuals and different cases several times, and the printed version of transcripts was easier to use. I analysed the data case by case. Transcripts were first interrogated for phrases and comments of interest. These were then copied from the Microsoft Word documents and put into Excel with a coding system to identify each transcript and place within it, as well as the biographical details of the interviewees.

The data are read on three levels: literal, interpretive and reflective (Erlingsson & Brysiewicz, 2017). For the literal reading, I focused on the literal content, such as the words and language used in the interview. For the interpretive reading, I concentrated on what the data meant or represented or what I thought could be inferred from it. For the reflexive reading, the emphasis was on my role and perspective as a researcher in the generation and interpretation of the data. These levels of reading allowed for easier data comparison, which presented a comprehensive understanding of the interview transcripts. Coding comprises three stages, as well: open coding, axial coding and selective coding (Corbin & Stauss, 2014).

First, the transcripts from all of the interviews were open coded after being read several times. Code words were written in the right-hand margins of the sheets. At this stage, all of the transcripts were treated as potential data, and no attempt was made to omit or select particular passages for special attention (Smith et al., 1999). The codes of every transcript were numbered for easy retrieval. The code numbers were shown on the paper when referring to the interviewee's statement.

Second, based on the open-coded data, axial coding was implemented to look for more analytical concepts (Corbin & Stauss, 2014). The emerging themes were identified, including shared themes and some specific ones in each transcript. Then, all the coded data were sorted into these themes, which were easily accessible, both for reading and exploring. The codes were displayed on forms. Then, the documents, including self-evaluation reports and the revised reports, were read through, and the data concerning the identified themes were selected, coded, and added into the coded forms under each theme. The newly emerged themes were supplemented. Coding and sorting the data helped to analyse all the data relevant to one theme together (Coffey & Atkinson, 1996).

Third, after looking through all the coded forms, I checked the connections between codes and themes and formulated coding notes. Some of these were attempts at summarising, some were associations or connections that came to mind, and others were preliminary interpretations. At this stage, the data were interrogated and systematically explored to generate meaning. All the pieces of data from various sources were compared for similarities and differences. Based on this analysis, some initial conclusions and preliminary findings could be made. Referring back to the codes and themes to revise and present a more structured and rational analysis was sometimes necessary.

In summary, the process of the thematic analysis referred to Braun and Clarke's six-phase process as a guide (Braun & Clarke, 2006). The details are as follows.

Phases	**Descriptions**
Phase 1: Familiarising with data	I begin with transcribing the recording into a verbatim record. This process gives me an overview of the initial ideas regarding codes and themes.
Phase 2: Generating initial codes	Once the transcription is completed, each transcript is marked with initial codes, which identify semantic or latent content.
Phase 3: Searching for themes	After fully coding the transcripts, all the codes are consolidated to present a structured set of codes. The refined list of codes is transferred and rearranged into themes.
Phase 4: Reviewing themes	Each code is studied in detail to determine whether it identifies a pattern across the interviews, forming part of a representative theme. Codes occurring only occasionally or appearing once or twice are excluded.
Phase 5: Defining and naming themes	This phase identifies the essence of each theme and proceeds with 'working titles' for the themes and sub-themes. Additionally, the themes' meanings are explored, and definitions are assigned.
Phase 6: Translation	The interview language at Star University is Chinese, and it is coded in Chinese to avoid a loss of meaning.

	The findings are translated into English before the write-up. A log on how codes and themes are translated into English is kept.
Phase 7: Writing the report	The working titles for themes and sub-themes are revisited for writing up, and the editing process enables more precise definitions and names. Reflections on Chinese and English wording are provided.

Table 6. Phases of Thematic Analysis

5.7 Positioning as a Researcher and Power Relations

Holmes (2020) argued that positionality in qualitative research encompasses the individual's world view or 'where the researcher is coming from' (p. 1). This positionality concerns (a) ontological assumptions (an individual's beliefs about the nature of social reality and what is knowable about the world), (b) epistemological assumptions (an individual's beliefs about the nature of knowledge) and (c) assumptions about human nature and agency (an individual's assumptions about their interaction with the environment and how they relate to it). The concept of positionality is referenced in terms of the researcher's insider or outsider relationship to the community engaged in the inquiry (Coghlan & Brydon-Miller, 2014). An insider is a researcher or participant who works for or is a member of the participant community; an outsider (e.g. an academic researcher) is considered a non-member (Coghlan & Brydon-Miller, 2014).

Kirpitchenko and Voloder (2014) stated that rigidly defined boundaries could not exist between insiders and outsiders; the insider/outsider researcher's positionality is not fixed. Instead, positionality has been considered a fluid continuum, depending on the context. Eppley (2006, p. 1) proposed a reconceptualisation of the insider/outsider researcher positionalities in an ethnographic study, 'not as a fixed and binary positioning, but an unsettled,

tenuous positionality situated within a continuum', therefore, expanding the discussion beyond the binary.

In this study, my position in the three contexts differed in terms of the cultural characteristics and my understanding and experience with each university. At Star University, I had experience working with some administrative staff related to international affairs, including cooperation and student mobility. At Cross University, I had both study and work experience, but neither was related to undergraduate studies. As for Maple University, I had no direct experience or prior knowledge but had close friends who earned their degrees there. With the consideration of anonymisation, I cannot offer more details of my role or experience in these three cases. In summary, I would say that I was more of an 'outsider' with a different degree of prior knowledge towards the context and experience of each university. I had no experience dealing with undergraduate matters, which led to a relatively more objective scope.

The snowball technique aided my data collection at Star University. Therefore, I relied more heavily on the participant's referral. With the consideration of the Chinese culture, I then needed to regard the participant more as a 'friend' rather than purely a researcher. In the Chinese context, approaching participants with a less formal gesture is preferable to obtain more information and better communication. However, I used a similar strategy in the cases of Cross University and Maple University; I chose purposeful sampling and contacted all the participants through email first. After the initial contact, I requested a referral for more participants. In the UK and Canadian contexts, my relationship with the academics was more formal. In the beginning, I thought I needed more time to let the participants familiarise themselves with me for a smoother conversation. However, in practice, the majority of the participants were very responsive, and the conversation flowed well, providing sufficient information. After the interview, I maintained contact with the participants when I could share

significant progress with my study. At the moment of writing this thesis, I communicate monthly with ten academics. Most are from Star University (in China).

Likewise, ‘power relations’ is also a topic in qualitative studies, especially during interview or observations (Karnieli-Miller et al., 2009). Because I interviewed mostly professors or individuals holding PhD degrees, I was less dominant in terms of knowledge and expertise. In general, I am comfortable interacting with academics because of my personality and growing up with a father who works at a university. Therefore, I generally did not feel much tension or overwhelming power relations when conducting this research. However, a certain power imbalance could arise when some academics have relatively aggressive and dominant personal characteristics. Such dynamics could make interviewing according to the guidelines more difficult. Additionally, frequent interruptions could create a less structured environment. However, an advantage is that these participants usually provided more information. I did not notice significant differences between interviewing the academic staff and the leadership. Most of the face-to-face interviews were conducted in their office or dining area on campus; the online interviews were held in my dormitory room, where I usually felt comfortable and could conduct the interview naturally and comfortably.

5.8 Validity and reliability

Questions of research validity and reliability have been debated in the research methods literature (Atkinson et al., 1988; Cohen et al., 2002). Validity, an often-disputed term (Oliver et al., 2005; Silverman, 2015), can be taken to mean the closeness of research finding to that which is claimed. Reliability can be regarded as the frequency that a research finding can be repeated over a period of time. Mason (2008) warned that ‘an obsession with reliability – which may

occur precisely because it can be “measured” – inappropriately overshadows more important questions of validity, resulting in a nonsensical situation where a researcher may not be at all clear about what they are measuring (validity), but can nevertheless claim to be measuring it with a great deal of precision (reliability)’. As a way forward, the concept of ‘trustworthiness’ presented by Lincoln and Guba (1985) was embraced, which means that the researcher needs to be truthful throughout the research process, from data gathering, interpretation and finally to the reporting of the data in the findings.

In this research, the overall validity of the research design and data collection was increased through the triangulation of data. I used documents from different levels and interviews with all levels of participants at the university. At the individual level, the same phenomenon arose in the data from different participants, thus strengthening the data’s validity.

In the data collection and analysis process, validity has been increased by checking with participants about unclear concepts after I finished the transcripts. This procedure occurred only with the data collection with the participants from Star University (China). I followed a similar protocol with the translation process because the transcripts were written and analysed in Chinese; however, after the thematic analysis, they were presented in English. Therefore, to avoid misinterpretation, I contacted some participants through email to confirm the meaning of certain terms. For example, one theme emerged as ‘conscious of being responsible for teaching’ (*liángxīn* 良心). In the original text, this phrase means intrinsic motivation based more on the individual’s sense of caring for the student and their responsibility as a teacher. Although the English translation retains the moral emphasis, the essence of the phrase is not the same as when the Chinese academics express it in the original language. Therefore, I emailed the participants who used this phrase and asked whether

they thought the translation of ‘conscious’ matched their perception and expression or if I needed to further explain the subtle difference and emphasis. In this particular case, the majority thought it had a different meaning than ‘intrinsic’ and that ‘kindness’ was the key behind the term instead of purely ‘moral consideration’.

Moreover, during the process, I kept the field notes after each interview, which offered more on-time reflection and could be helpful with the later analysis. Adhikari (2018, p. 98) explained that ‘field note writing is a crucial means to documenting’ and preserving empirical data in ethnographic fieldwork. The combination of these techniques has advantages, for instance, to improve methodological validity. Bowen (2009) argued that the combination of document analysis with other qualitative research methods such as interviews, observation, etc., provides a confluence of evidence that creates credibility.

5.9 Research Ethics

According to Bulmer (2001), ethics is a ‘matter of principled sensitivity to the rights of others’ in which researchers have to take account of the effects of their actions upon the participants in their research and act in such a way as to preserve their rights as human beings. At a minimum, therefore, I ensured that my study should comply with the ethical guidelines for educational research issued by the British Educational Research Association (2011) and the ethical guidelines provided by the Institute of Education, University College London.

This research is conducted with data collection in China, the UK and Canada. The principle of recruiting participants is volunteering. The recruiting strategy is not the same in the three contexts as I have explained before. Before the interview, I always send out the information sheet in advance to explain the

reason for doing this research, what they would do as participants, how much time would be involved, how their information would be treated and protected, how data would be used, and the advantages and disadvantages of taking this research. Also, what would happen if they want to withdraw from the research is presented. It would cause no harm to the potential participants, and they have every right to withdraw for any reason at any time. In particular, I always double-check for the permit for recording. The next step is collecting the participants' written signatures on the consent form after they fully understand the research.

Participants would be treated fairly, sensitively, with dignity, and within an ethic of respect and freedom from prejudice regardless of age, gender, sexuality, race, ethnicity, class, nationality, cultural identity, partnership status, faith, disability, political belief or any other individual differences.

There is no deception in the process of communication and data collection. This research is related to the development of the institution, faculty and department. Therefore, participants may consider the possible influence of the research has a bearing on their reputation. Furthermore, the investigation of the inner mechanism may also influence the relationship between the colleagues, so I keep noticing the reaction of participants during the interview and revise questions simultaneously. Also, interview questions had the potential to unearth uncomfortable findings from participants, therefore I needed to be sensitive to participants' feelings. It was also possible that participants might feel that some lines of questioning were aimed at uncovering their deficiencies as academics, therefore it was important to assure participants that the purpose of the study. Although the participants are adults and the research is not highly sensitive, the interview may reach the topics of workload and pressure, which may make participants feel less positive or active during the interview. If it happens, I would try to ease the emotions of the participant, for instance by using comforting language and keep processing the interview. If participants feel seriously

uncomfortable, I would drop the relevant questions or stop the interview. All necessary steps would be taken to reduce the sense of intrusion and to put participants at their ease.

As Sapsford and Abbott (1996, p. 318) stated, in the context of social research, 'interviewing is intrusive, but having your personal details splashed in identifiable form across a research project is even more intrusive'. All the personal information of participants are anonymised to protect their identities. In practice, anonymization meant removing the name of the participant's city, institution, and discipline (Saunders et al., 2015). While I knew the identity of each participant, I kept this separate from the transcripts, referring to each of them by a code name, which I also used within each transcript. I have used a code name for each participant with the title (Mr/Ms, Dr, or Professor) and a pseudonym to give a sense of human beings instead of giving a number for each participant. During the data analysis phase of the study, I directly used these codenames in the thesis writing to make sure that my participants would not be identified. The interviewees had the right to have what they said as individuals remain confidential. Similarly, it is paramount to the inquiry that interviewees felt able to speak freely, even if others may disagree with what they said, knowing that they cannot be linked to any data that may put them in potential jeopardy. To further protect the confidentiality of my research participants I followed Muchmore (2002) who, in deciding what sort of personal information to include or exclude for each participant, was guided by the Kantian ethics that 'we should treat people as ends in themselves, never as merely the means to an end' (Kant 1785). To this end, and in line with Muchmore (2002), I decided to leave out any potentially embarrassing personal information. In addition, I also excluded any personal information that a participant did not wish to be published.

The contact and data collection process involves participants and me directly

without other organisations or people's intervention. I tried not to let the participants know each other. However, it is still possible because they work in the same faculty and some participants choose the university campus as the place for interviewing. To reduce this potential risk, I addressed this issue before the interview and advise the participant not to discuss it with colleagues. As for the universities, since the choice of the world-class universities in the selected region is limited, the name of the institutions is anonymous.

The research data was stored in the specific file in the password-protected drive in my UCL account. The files were encrypted to avoid information leakage. The data was analysed in either the library or my personal residence with the protection of access control. Hard copies of transcripts, which I used during data analysis, were kept in a locked cupboard, and then put in confidential waste post-use. I stored the hard copies until the thesis is submitted.

The data is only used in my doctorate thesis, but the consent was obtained in advance in case of publishing in any other journal or being used by other organisations. I also promised to share my research findings with the universities, making available to them copies of the final thesis. Shenton and Hayter (2004) thought that this is one of the ways to show the researcher's reciprocity in order to gain access to institutions and participants.

According to the UCL regulations, my supervisors may support me in the data handling if it is necessary. The inquiry was submitted and received ethical approval from the University's Ethics Committee on 10th May 2018.

Chapter 6 Case Studies: Findings from Chinese, British and Canadian Universities

This chapter presents the findings from case studies conducted in China, the UK, and Canada respectively. Each case study is similarly organised to illustrate the influence of institutional strategy on undergraduate teaching in different national contexts. First, I present the university context, including background, funding structure, organisational structure, and faculty background. I then illustrate the findings from strategic documents, including the university, education, and faculty strategies, followed by findings from interviews conducted with academics, leaders, and administrators.

A community of practice is typically a structured space where educators can receive and share resources for their practice (Barnett et al., 2012; Woodruff, 2021). Therefore, the university strategy was analysed through the concept of ‘academic resource’ (Massy, 2020) to illustrate the types of resources related to undergraduate teaching: namely, human, physical, and financial resources (Massy, 2020). As for educational strategies, the focuses can be different based on the national and institutional characteristics. As a result, there was no shared categorisation for all universities, and each university was analysed separately. The faculty strategy was included to investigate the contextualisation of university strategy and educational strategies within engineering disciplines. The analysis of interview data from three universities then followed, including findings on participants’ awareness, attitude, recognition, and response to the institutional strategy.

6.1 Case 1: Star University (China's Mainland)

6.1.1 University Context

6.1.1.1 Background: A Top University Due to Its Quality Research and A Popular University Due to Its Reputational Education

Star University is located in a municipality in Eastern China, which is one of the cities with the highest economic and internationalisation levels. The university is one of China's National Key Universities. It has significantly contributed to the country's development, the nation's rejuvenation, society's well-being, and science and technology advancement. Star University has a long-time reputation in arts and humanities, social science and natural science studies. Since the 21st century, it has developed medical studies as well. As a university with a reputation for quality education, Star University has always been popular among students across the country. Moreover, with its modernisation of the city and internationalisation efforts, Star University has a higher percentage of international students compared to other Chinese universities. The key background information is listed in the following chart.

Figure 10. Background Information of Star University

6.1.1.2 Funding Structure: A Decentralised Model

According to the 2021 financial report from Star University, the funding schemes are as follows.

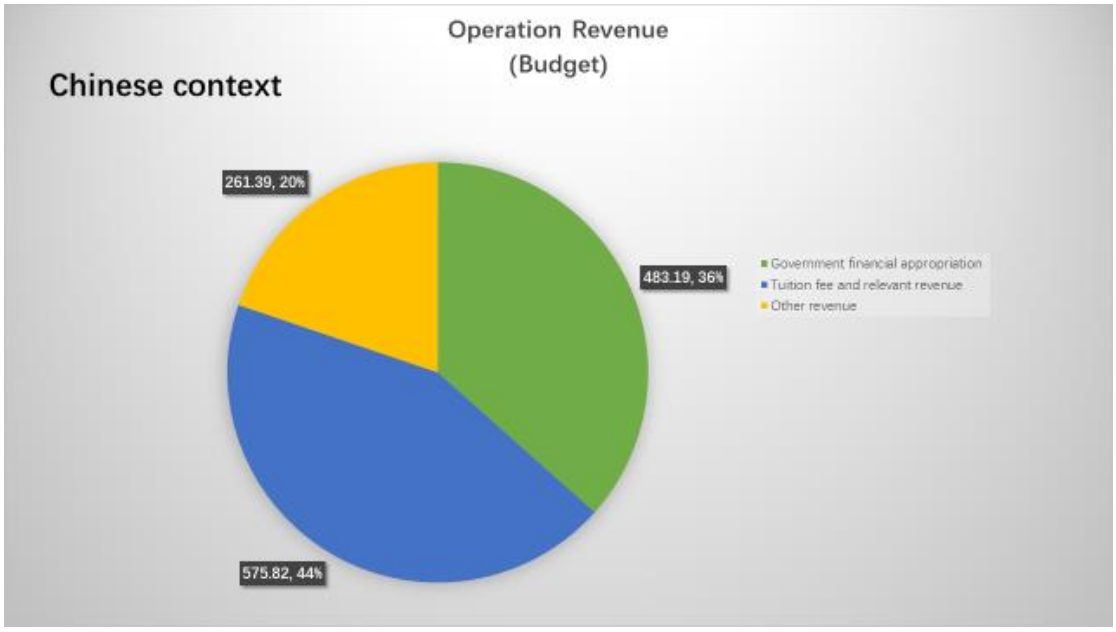

Figure 11. Operation Revenue of Star University (2021)

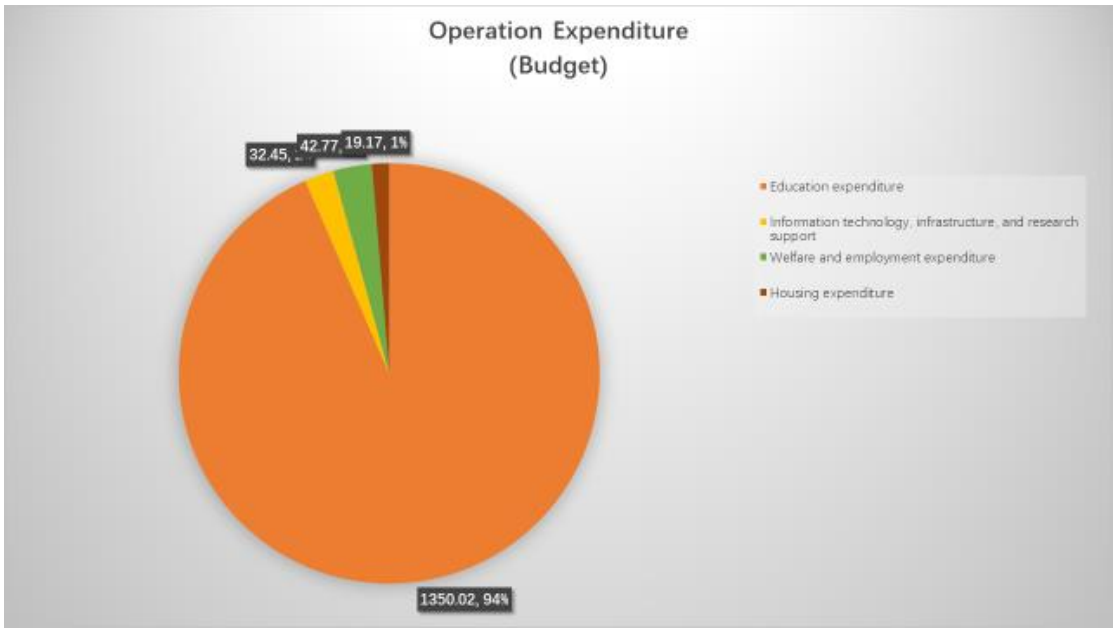

Figure 12. Operation Expenditure of Star University (2021)

For Star University, the total revenue is around £120,000 and the expenditure is around £153,000 in 2021. Funding sources are divided among student tuition,

the government's allocation and other revenue (the public information only contains these categorisations). Although as a National Key University, Star University receives a large amount of financial support from the government, the proportion of student tuition (44%) is a bit higher than the government allocation (36%), which is different from the literature that government funding is the highest proportion of revenue in Chinese universities. This is because the financial allocation for higher education remains tight[21] following the Central Committee of the Chinese Communist Party and the State Council's requirements on reducing public expenditure for non-rigid and non-urgent expenditure to support the necessary expenditure needs and major tasks and key projects deployed by the Party Central Committee and the State Council (Ministry of Finance of the People's Republic of China, 2020)[22].

At Star University, the mode of funding allocation is through the faculty/department distribution model. In other words, faculties and departments have more autonomy in allocating the funding when they received funding based on the budgeting from the finance department of the university. This model is commonly utilised to highlight that faculties and departments are the main body for teaching, research and social service activities. Additionally, it is meant to mobilise faculty and department enthusiasm and initiative to manage financial affairs, increase revenue, reduce expenditures and improve efficiency. This financing model reflects the financial management decentralisation (Fu & Zhu, 2004) and provides faculties and departments greater autonomy.

[21] https://www.eol.cn/shuju/uni/202112/t20211203_2183159.shtml
[22] http://finance.people.com.cn/n1/2020/0611/c1004-31743315.html

6.1.1.3 Organisational Structure: The Combination of Administrative Leadership and Party Committee Leadership

The governing system of higher education institutions in China is called ‘the president responsibility system under the leadership of the communist party committee’ (Ministry of Education of the People’s Republic of China, 2014) which is consisted of two broad systems: The Party system and the administrative or academic system. The university Communist Party Committee, directed by the Party Secretary, works in parallel with the administration of academic systems headed by a university president. Similarly, at the faculty and department levels, Party branches were also established to ensure the implementation of Party policies. They took full responsibility for Party issues. In addition, from the fieldwork, the Sectary of Party Community

> Can be understood as a member of the university board. Maybe his/her academic ability is not that strong, but the ability to find and earn money and gain resources is strong. For example, the public relations ability of the Secretary of the Party Committee is critical in striving for resources inside and outside the school, including the various resources invested by the government as well as social resources, political resources, and alumni resources, which are important for both research and teaching (Professor Wei – Star University).

While deans or department heads are mainly concerned with administrative and academic matters (Huang, 2018). In this study, the main focus is on the administrative side in terms of academic affairs. Therefore, the university president has more practical responsibility. The following figure expresses the structure of the university in terms of teaching.

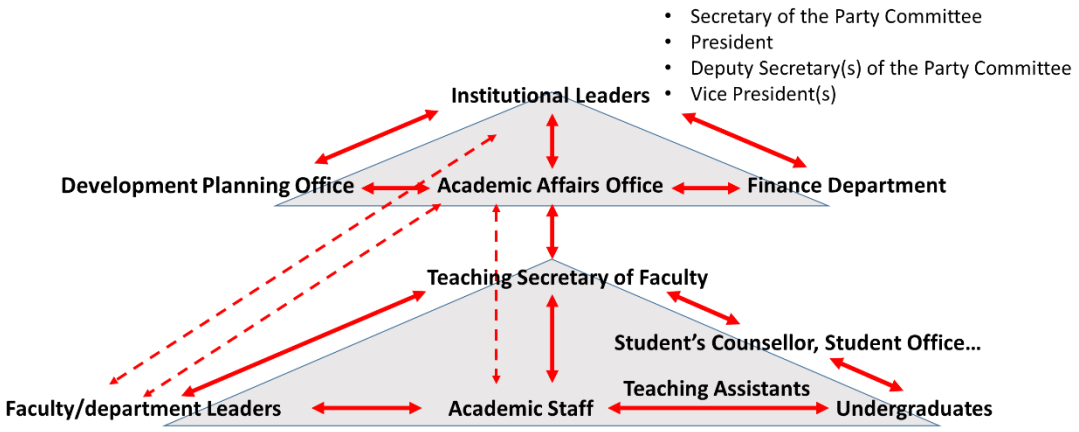

Figure 13. Organisational Structure of Star University

At Star University, a two-tier management structure in terms of teaching practice can be detected. At the upper tier, the Vice President of Education's office (in charge of teaching and learning) provides strategic directions to the development planning office. In a more practical sense, the academic affairs office is where students can address detailed issues in their learning process, mainly related to the pedagogy and curriculum. When approaching the faculty level, the primary contact is the teaching secretary (an administrative position), who links the upper level and the teaching practice inside the faculty.

Based on the interviews, only one staff serves as the teaching secretary. Although some communication between upper leadership and the leadership in the faculty/department or the rest of the academics occurs, the link seems tenuous because there is only one teaching secretary linking the different groups of staff for teaching. Therefore, the finding aids the conclusion that the link between the two layers in terms of teaching is weak.

6.1.1.4 Faculty of Engineering

The faculty of engineering at Star University was founded in the 1970s. This faculty is distinct from traditional engineering faculties in that it focuses on

information technology engineering, which includes computer science, information technology, software engineering, and security technology and engineering. Each of these majors has a corresponding undergraduate programme. The number of academic staff is estimated to be around 200, but information on the number of students could not be found.

6.1.2 Institutional Strategy of Teaching

6.1.2.1 University Strategy: Aligned with Party Committee and National Development

The university strategy was found on the university website[23]. It has 16 pages in total and is presented in Chinese. The strategy consists of two sections, the first is the review of the previous strategy and the second is the vision and mission for further development.

Star University's overall goal is to 'be close to the socialist direction of running institutions, fully implement the party's educational policy, persist in serving the people, serving the Communist Party of China in governing the country, serving the consolidation and development of the socialist system with Chinese characteristics, and serving reform and opening up socialist modernisation with morality. In this statement, Star University has explicitly emphasised the coherence between the development of the university and the goal of the Communist Party is of great importance, and this direction and function of higher education is widely shared with all the universities in China owing to the political system. Although Star University has not mentioned undergraduate teaching, in particular, the university strategy set the overall direction for all the activities of the university.

[23] The title of the strategic document and the website address cannot be listed owing to the anonymisation and research ethics.

- **Human Resources**

According to the university strategy, Star University focused on academics, leaders and administrators as human resources to enhance teaching.

For academics, the strategic decisions were categorised into ‘accelerating the construction of first-class academics’, ‘enriching academic mobility’, ‘improving the teacher recruitment system’, and ‘improving the evaluation mechanism’. The details are as follows.

Accelerating the Construction of First-class Academics:

- Increase the number of all types of talents in all disciplines and construct an age-balanced teaching and research echelon;
- Improve the employment system following major national strategies, major projects, and national talent planning platforms;
- Introduce and cultivate international talents, leading figures, academic leaders, and young academics to meet the national strategic needs;
- Improve the supporting system and the environment for talent development and promote the enthusiasm of teachers to educate students;
- Strengthen and build a long-term mechanism for cultivating teachers with both academic ability and morality;
- Establish and improve talent training with clear positioning and sustainable development.

Enrich Academic Mobility:

- Attract outstanding foreign teachers and the world's top scientists to

come for academic research.

Improve the Teacher Recruitment System:

- Improve the recruitment system and strengthen the team-building for new teachers;
- Open up various channels such as research projects, postdoctoral, and visiting scholars for academic mobility;
- Implement the contract employment system and post-appointment system, and improve personnel transfer mechanisms to promote the rational flow of talents.

Improve the Evaluation Mechanism:

- Guided by the ‘representative results’, investigate and summarise the practical experience of the evaluation mechanism for promotion;
- Actively explore new methods and improve procedures.

To summarise, Star University has emphasised recruiting, supporting and evaluating academics for the university. In the context of higher education internationalisation, Star University wants to promote academic mobility as well. In addition, Star University has emphasised teaching and teacher training in the strategy.

For the leadership, strategies included “consolidating the ‘principal responsibility system under the leadership of the Party Committee’”, and ‘enriching and improving the internal system of management’. The details are listed as follows.

Consolidating the ‘Principal Responsibility System under the Leadership of the Party Committee’:

- Strengthen the ideology in accordance with Party Committee,

improve the Party Committee's research and discussion on the citizenship education of teachers and students, and construct an uncorrupted government;

- Improve the democratic and scientific decision-making system through in-depth investigation and collecting opinions from all sides as the pre-process of decision-making on major issues.

Enrich and Improve the Internal System of Management:

- Formulate and implement university regulations;
- Improve the operational system by clarifying procedures and constructing new systems of rules, standards, procedures and norms.

From the leadership perspective, Star University strengthens the influence of the value and direction of the Communist Party, especially the main value and ideologies of the Party. In addition, the system of decision-making and implementation requires more systematic and effective approaches, and this is expected from leaders at the institutional, faculty, department, and programme levels. Moreover, Star University explicitly addresses the emphasis on enhancing management.

The supporting staff was also mentioned in the document that the university aims to ‘coordinate all kinds of personnel’.

- Cultivate counsellors with strong political, professional, disciplined and positive styles;
- Construct technical support teams such as technical support staff who master key technologies and librarian support.

In other words, Star University has high expectations for the supporting staff in their professions and skills.

To summarise, the strategic document from Star University seems abstract and contains overlapping information. The value and philosophy of the Chinese Communist Party is an overarching model for personal development that is to cultivate the talents with core socialist values including national values of prosperity (*fùqiáng 富强*), democracy (*mínzhǔ 民主*), civility (*wénmíng 文明*), and harmony (*héxié 和谐*), social values of freedom (*zìyóu 自由*), equality (*píngděng 平等*), justice (*gōngzhèng 公正*), and rule of law (*fǎzhì 法治*), and individual values of patriotism (*àiguó 爱国*), dedication (*jìngyè 敬业*), integrity (*chéngxìn 诚信*), and friendship (*yǒushàn 友善*) (18th National Congress of the Chinese Communist Party, 2012).

In detail, academics' guidelines mainly covered recruitment, development, evaluation and support. The recruitment primarily comprised academics of 'talent' who are leaders in their fields. However, 'talent' primarily refers to research achievements and lacks any explicit mention of teaching capability. As for the development of academics, the strategy mentioned training as the overall method. The information regarding evaluation and promotion was not detailed but mentioned an attempt to improve the system via comprehensive evaluations. Among the instructions for supporting academics, the document explicitly outlined guidance for improving the environment for academic development and encouraging teaching enthusiasm.

Regarding leadership, Star University requires its leadership team to improve its decision-making management mechanism. Moreover, it expresses the importance of formulating and implementing university regulations. In other words, Star University adopts the guiding value of enhancing strategic applications.

The supporting staff requirement generally comprises two dimensions: professionalism of administration and responsibilities related to the job description, and capabilities of adopting and applying technologies.

- **Physical Resources**

The physical resources in Star University's strategic document relate to the development of the campus, including the following themes.

Promote Campus Construction and the Functional Layout:

- Improve the functions of the campus and promote basic construction to meet the requirement of a world-class university;
- Construct a high-standard undergraduate experiment community with centralised construction and unified planning to meet the needs of first-class undergraduate education;
- Improve undergraduate teaching laboratory and the equipment hardware;
- Improve public spaces on campus, such as student activity centres, to support innovation and interdisciplinary research and international academic exchanges;
- Arrange space and facilities for students' accommodation.

Construct the Smart Campus:

- Construct the smart campuses and provide digital information resources platforms based on library construction;
- Promote campus network infrastructure based on cloud computing;
- Increase the quality of international bandwidth and online service;
- Strengthen network security and provide secure information services.

Regarding physical resources, Star University exerts significant effort on campus construction projects, in which planning is underway for an undergraduate experiment community centre and undergraduate teaching laboratory. The strategy relays the message that the university intends to foster additional research ideas and practice into undergraduate teaching.

- **Financial Resources**

Financial resources at Star University are about strengthening financial supervision and management services:

- Standardise the management of the expenditures of national programmes and institutional-level projects, and improve basic funding arrangements and special expenditures;
- Improve financial processes and ensure the orderly development of teaching and research work;
- Implement an accounting accreditation system and provide efficient services.

The strategic document broadly described the financial support that the university receives. The core information refers to developing a sustainable system for better academic-practice support.

6.1.2.2 Education Strategy and Quality Assurance

At Star University, the education strategy closely aligns with quality assurance and the yearly evaluation. Therefore, I selected the latest report (2020–2021) to interpret the undergraduate teaching at Star University.

In this report, several targeted sections of undergraduate teaching emerged, including (a) teaching development and reform (pedagogy and curriculum, teaching material, practical teaching, graduation project/dissertation, innovation and entrepreneurship education and internationalisation of education); (b) quality assurance development (enhancing academic management, upgrading the course evaluation system, improving teaching supervision, focusing on the multi-dimensional implementation of education quality, supporting teaching ability development); and (c) generic and transferrable skill development for undergraduate students (basic quality and ability, innovation and entrepreneurship skills, and employment). The practices are:

- Establish more majors;
- Provide additional curriculum for other majors;
- Create smaller classes;
- Invent new teaching methods;
- Cooperate with other colleges and universities;
- Develop the online platform and online courses;
- Improve teaching material;
- Enable opportunities for practical learning and teaching;
- Support graduation design or dissertations with academic writing and ethics;
- Organise competitions and events for entrepreneurship education;
- Offer courses, summer schools, and international exchange programmes in English to improve internalisation.

At the end of this report, two chapters specifically addressed the progress of the formulation and implementation of these strategic decisions in the 2020/2021 academic year. The progress included applying systematic planning to promote the pilot of the ‘Three All-round Education’ system, full implementation of the ‘2+X’ undergraduate training system and implementation of the learning-centred teaching facilities’ reform. The reflection on the

remaining issues is that the curriculum ideology's educational potential has not been fully utilised, the teacher-performance evaluation system needs improvement, and the teaching-material system and demonstrations are not outstanding.

The education strategy, or in this specific case, the quality assurance report, provided details via quantitative data of how undergraduate teaching would be improved. As educational guidance for all disciplines, the information is broad and reflection is abstract. Additionally, many terms in the document, especially regarding the programmes, lack explanations, so it is difficult for the reader to comprehend. Perhaps the information is specifically directed to the university staff but not a wider audience.

6.1.2.3 Faculty Strategy

The engineering faculty webpage stated that the faculty was established in the 1970s. Otherwise, no detailed strategy is publicly available that outlines undergraduate teaching and learning from the faculty or its departments.

To summarise, the managerial approach of Star University is the extension of the national development mixed with the interests of universities. In other words, university strategy is in close relation with the national policies and ideologies, in particular, the value of the Communist Party. In addition, the university aims to compete in the global market of higher education. In particular, emphasis is given to the recruitment and cultivation of university staff including academics and professionals. For education quality, the university has enhanced the evaluation through the yearly assessment. However, the education strategy gives only general directions for development but not practical criteria.

6.1.3 Interviews Analysis

Followed by the analysis of the strategic documents, the following sections present the findings from the interviews with academics, professional staff, and leaders at Star University

6.1.3.1 Awareness – Wide Awareness

At the beginning of the interviews, I first addressed academics' (including leaders) awareness of 'institutional strategy' without explicitly mentioning either the university or educational strategy but by asking 'do you know any institutional strategies?'. After receiving an answer to this first question, I then asked for further details. I intended to identify what academics first related to the term 'institutional strategy' and to see the potential differences between the university and educational strategies' impacts.

Based on the interview data, I categorised the answers regarding institutional strategy awareness into three categories: (a) aware (when participants answer the question directly with information about the institutional strategy), (b) partially aware (when participants answer the question with uncertainties but can still say something relevant about the institutional strategy), and (c) not aware (when participants answer the question with strong negative answers, even if they mention some strategies later in the interview). The summarised information is listed in the following table.

	Positive			Neutral			Negative			
Aware	4	The 1960s The 1970s	1 3	3	The 1970s The 1980s	2 1	0			7
		Male Female	3 1		Male Female	1 2				
		Professor Associate professor Senior lecturer	2 1 1		Professor Associate professor	2 1				
		Married With kids	4 4		Married With kids	3 3				
		(Previous) administrative/ leadership role	4		(Previous) administrative/ leadership role	1				
Partially aware	4	The 1960s The 1970s The 1980s	1 2 1	9	The 1960s The 1970s The 1980s	1 5 3	6	The 1960s The 1970s	2 4	19
		Male Female	3 1		Male Female	8 1		Male Female	5 1	
		Professor Associate professor	2 2		Professor Associate professor Lecturer	4 3 2		Professor Associate professor Lecturer	3 2 1	

		Married With kids	4 4		Married With kids	8 7		Married With kids	6 6	
		(Previous) administrative/ leadership role	2		(Previous) administrative/ leadership role	2		(Previous) administrative/ leadership role	2	
Not aware	0			2	The 1970s	2	0			2
					Male	2				
					Professor Associate professor	1 1				
					Married With kids	2 2				
					(Previous) administrative/ leadership role	0				
	8			14			6			

Table 7. Academics' Awareness and Attitude towards Institutional Strategy from Star University

Based on the interviews, a majority of academics believed they were more or less aware of the institutional strategy. The general approach of sharing institutional strategy includes sending emails, holding meetings and listening to reports and participating in administrative or managerial positions.

Several reasons attribute to the broad interpretations of the institutional strategy. First, the Ministry of Education of the People's Republic of China ran the undergraduate education evaluations one year prior to the time when I conducted interviews. Because the understanding of strategies of the staff was assessed by the national evaluation scheme, the university made numerous efforts to brief staff on the strategic decisions and required them to understand its present and future aims in the strategy. 'There are even [occasions] that some staff stops us in the campus and ask us about the strategic decision of the university' (Professor Hon). Academics generally have the feeling that 'we value the national evaluation' (Dr Lou), and, therefore, they are spontaneously willing to know more about the strategy for better evaluation results. These responses can be stimulated by both a sense of honour and a collective ideology.

Second, the majority of the interviewed academics have or had either administrative or management experiences. Star University encourages academics to fulfil their service by taking these roles. Such positions usually have the responsibilities of understanding institutional strategies. Thus, the proportion of staff with a closer link and better understanding of the institutional strategy is relatively high.

Third, academics seem to enjoy discussing the institutional strategy with their colleagues that 'we would like to discuss the actions and plans when we have [a] meeting or just having lunch' (Dr Fang). As a result, academics who have never held an administrative or managerial role can still understand the

institutional strategy through their colleagues.

Furthermore, academics found they cared more about the institutional strategy when they were new to the university than when they became more experienced. In other words, when early career academics join the university, they are intrinsically motivated to learn the university's emphasis and requirements. This is because, on the one hand, young academics need to know more about university culture early to quickly fit in. On the other hand, they want to know the main promotion criteria, and one way to obtain this knowledge is through strategies.

Moreover, the awareness of the instructional strategy could be ‘very different from one subject to another’ (Professor Shang). In addition to disciplinary differences, ‘the developmental level of the subjects that require different resource[s] and [have] different direction[s]’ also played a role (Professor Shang). This means that some disciplines are more relying on the resources allocated by the university through its strategic decisions. For example, engineering requires more resources than other disciplines ‘like humanities and arts’ (Professor Shang). Therefore, academics from the departments that need more resources from the university may recognise the institutional strategies more than academics who are not.

The principle of ‘teaching always comes first’ (Professor Shang) was widely understood by academics. Thus, ‘classroom teaching is always the priority compared to other work like conference[s], meeting[s] and other management chores’ (Professor Lio). Regulation stipulated that an ‘academic cannot ask for absence if we have the class to teach at the same time’ (Professor Shiyin). In addition, academics paid the most attention to ‘the offering of subsid[ies]’ (Professor Ping) and ‘the support of revise[d] and improve[d] teaching material[s]’ (Professor Mon), which means that academics see strategy as

instrumental to their career development when it comes to the academic practices.

6.1.3.2 Attitude – Generally Neutral with Extreme Cases

As for the attitude with respect to strategy, the majority of the academics interviewed (22 out of 28) believed that the institutional strategy positively influenced or at least held a positive intention for undergraduate teaching development.

Academics relate their attitudes towards institutional strategies to academic ability (Professor Ping), management skills (Professor Hing), personal interests (Professor Shang), personal style (Dr Lou), teaching philosophy (Professor Young), teaching experience (Dr Fang) and family influences (Professor Song). Additionally, academics suggested that the strategy's content quality is crucial how academics feel about strategies. Professor Song stated that the strategic document should 'have short and clear principle[s] and detailed, well-written rules'. In other words, the strategy must be precise and comprehensive and easily understood by all audiences.

However, some intense and sharp arguments emerged regarding the influence of institutional strategy as well. The participants mostly referred to notions of academic freedom compromised by institutional strategies. According to Professor Lio, the logic was that 'the institutional strategy is simply chasing indicators, which is the opposite of academic freedom. [Academics] should be guaranteed to be able to research and teach whatever they want'. The relationship between the achievements that the institutional strategy is pursuing and academic freedom should recognise that 'the free environment for academics is the cause of generating more achievements naturally instead of

pushing and regulating academics through the strategy' (Professor Lio). Professor Lio also related that institutional strategy should position the higher education institutions as 'the lab of the society' that 'should encourage and allow a certain degree of risk and uncertainty but not only researching and teaching the traditional and popular knowledge' (Professor Lio). This assertion also relates to the notion of innovative teaching that should be not only about new and advanced ideas but also about unpopular studies regardless of cost and effort. However, the strategies that are pursuing the efficiency of indicators cannot achieve such an intention.

6.1.3.3 Academics' Recognition and Response to the Institutional Strategy

- **Talent Recruitment and Poaching**

To begin with, Star University's standard for recruiting new academics is rising. In other words, the requirement for the degree is becoming higher. The academic backgrounds of the participants are summarised in the table below.

Degree type	University type	Birth year	Number of participants
Master degree	Domestic university	The 1980s	1
		The 1970s	3
PhD degree	Domestic university	The 1980s	1
		The 1970s	14
		The 1960s	4
	Overseas university	The 1980s	3
		The 1970s	1
		The 1960s	1

Table 8. Academic Backgrounds of Academics from Star University

Apart from the academic degree, I have also collected information on the post-doctorate of participants to illustrate the focus on the research abilities of

academics and the internationalisation that Star University wants to promote through having more academics with international academic backgrounds.

University type	Birth year	Number of participants
Domestic university	The 1970s	3
	The 1960s	1
Overseas university	The 1980s	2

Table 9. Academics with Post-Doctorate Experience from Star University

According to the academic-background information, the threshold of academic degrees is getting higher. Individuals with a master's degree are less likely to stay at the university as an academic staff. Additionally, the number of academics who have post-doctorate experience is rising, reflecting the increasing focus on research experience and the achievements of potential candidates.

Additionally, one way to develop higher education's internationalisation is through global academic mobility. Among the approaches, recruiting academic staff with overseas backgrounds can be straightforward and efficient, which can be reflected in the quantitative measured report like rankings. Therefore, accepting overseas degrees is a 'growing trend' (Dr Lou), indicating the 'internationalisation progress' (Professor Hoo) at Star University. As the previous literature described, globalisation and internationalisation stimulate the development of global rankings, which contain specific criteria for the level of internationalisation. Recruiting international academics may also contribute to the publication in foreign language journals (especially English) because they possess strong language skills and are more familiar with foreign and international criteria.

The higher recruitment standards lead to a more competitive environment in

academia. On the one hand, they have the potential to 'improve the overall quality of higher education in China's Mainland because the qualified academics who used to be able to join the top university like Star University now have to go to less prestigious universities, so now these academics will improve the quality of those universities' (Professor Wei). However, the increasing standard of recruitment does not necessarily mean that teaching standards are higher but, instead, focuses more heavily on research achievement. Therefore, whether academics with stronger research capabilities can improve higher education by providing good quality teaching for undergraduate students remains unclear.

Apart from the higher standards of recruiting new academics, Star University is also 'poaching' established and highly respected professors who are 'rewarded as national scholars like the Changjiang (Yangtze River) Scholar'[24] (Professor Hoo). However, this action is considered a 'utilitarianism way to improve the quality of the university' by simply 'fighting for the academics who already have enormous achievements' (Professor Hoo). Moreover, 'poaching professors with achievement has very limit[ed] influence on the teaching but [on] the research' (Dr Whei). Therefore, although this action is supposed to improve teaching, it falls short according to the respondents.

- **Resource for Supporting Academics**

While the academics reflected on their resources and support for their teaching, they widely recognised physical resources, including facilities and equipment.

[24] The Changjiang Scholars Programme highest academic award issued to an individual in higher education by the Ministry of Education of the People's Republic of China with the goal of elevating research at Chinese universities to the highest levels internationally. The Changjiang Scholars Programme mainly recognises China's domestic top scholars, who receive the prestigious title of Changjiang Distinguished Professor at their own Chinese universities and are provided with some research resources to enhance the recipients' research programs (Ministry of Education of the People's Republic of China, 2015, 2017).

However, the academics also identified certain factors that they felt required further improvement.

First, although the library's hardware was considered satisfactory, academics mentioned 'the insufficiency of the material and literature for academics to study and research' (Professor Haoz). Thus, academics believed their overall learning environment lacked sufficient support from an academic perspective.

Second, academics hoped that they could enjoy more benefits of housing support and childcare from the university, so they can focus more on their work. It is 'especially difficult for the young academics who [have] a baby or child. And it will be much more helpful if the university can provide childcare for staff as a solid support' (Professor Hoo). Although the university tried to provide support for its staff, the difficulties and challenges that academics encounter are diverse and can differ based on the stages of their personal and academic lives. University staff can benefit more if the institution differentiates support for different groups of individuals.

Last, academics believed clear legal support is necessary regarding their responsibilities in extreme situations with students. 'When there are any unfortunate incidents, it is difficult to protect academics with a proper and clear verdict of the responsibilities, and that may hurt the academics from both the emotional perspective and the career development' (Mr Tong). Such extreme situations refer to students' academic performance and their mental health. In the Chinese context, teachers usually tend to monitor student learning outcomes and, in most cases, assessment results. Even in higher education, teachers focus on student performance and discuss with students to improve their learning outcomes. However, academics are often unaware of a student's mental health status or experiences outside the classroom. Therefore, the information gap may lead to suboptimal communication between academics

and students. According to my participants, inadequate attention was paid to these circumstances (from how to better support academics' dealings with such situations and the regulations and solutions in place for responding to these incidents).

- **Curriculum and Pedagogy Reform**

Academics reflected on their relationship to institutional strategy through curriculum reform. This reform included diverse tracks of undergraduate programmes, an emphasis on transferrable skills and employment, examination reforms, the importance of supervision, modernising teaching technology, the curriculum's humanities ideology, and confidence in education.

In general, Star University aims to cultivate 'future leaders for all walks of life' (Mr Tong), and the corresponding curriculum is designed to provide more opportunities for undergraduates' multidisciplinary studies. At Star University, the curriculum experienced a significant change called '2+X'. This module system for undergraduates offers different possible courses in which students can enrol. 'The "2" represents "two ways" of education. One is professional education, and the other is general education. Professional education plus general education is this "2"' (Mr Tong).

The 'X' represents four choices for education. The traditional approach is to further study the selected major's advanced courses. The second direction is to further pursue the study by attending 'honour courses', which are more likely to be at the postgraduate level. This track 'requires the selection process, and it is designed for more capable students in the subject' (Mr Tong) or undergraduates who want to pursue an academic career. The next track is called cross-discipline development, which means that the 'student can learn

the core modules and have enough credits from other faculties as another major' (Mr Tong). The last direction is called innovation and entrepreneurship. Slightly different from cross-discipline development, this track allows students to choose courses from different faculties instead of one faculty. In other words, it encompasses a multidisciplinary approach that gives students 'the widest understanding of different disciplines, especially for the practical subject for the business start-ups, including legal studies, managerial studies, financial studies and technology studies' (Mr Tong). Each of these four approaches is designed to allow students to adopt a suitable approach for their undergraduate study. They illustrate one major strategic decision from the university management to the practice of undergraduate teaching and learning.

Related to reforming the different tracks of undergraduate study, Star University also places greater emphasis on preparing students with transferable and employment abilities. Nowadays, a trend has emerged among academics to invite professionals from various companies to present a clear picture of the job market's actual environment. Likewise, one course has been redesigned with the same development process as a career-development programme for staff in the software company.

> Originally, software engineering courses were organised in the order of requirements, design, implementation, and testing. But in the actual context [of working as a soft engineer], his or her growth experience is reversed. In the beginning, it's coding work. The requirements have been clarified, and he or she is then responsible for the specific implementation of the codes. The design schemes have been taken out. From this point of view, our course has been revisited two years ago, and completely aligned with the actual development model of an employee in the software industry (Professor Shiyin).

This redesign has also led to reforming the teaching material to better suit the courses' purpose and design instead of using existing or classic textbooks.

As for examination approaches, Star University encourages diverse ways of assessing undergraduates. In engineering studies, especially computer science-related studies, ‘the traditional examination of test papers are mostly cancelled’ (Professor Kim). Accordingly, academics tried to foster atmospheres that ‘decrease the importance of examination scores for students’ (Dr Lou) to focus more on knowledge and skills. However, academics felt that ‘the university is not paying enough attention or [providing] the support to the reform of assessing undergraduates’ (Dr Whei). In other words, academics expressed that the experiments of innovative assessment are not well recognised or rewarded by the institution. Moreover, the administrative work required for academics to change assessments is too time-consuming. Too many regulations are imposed, and too much preparation time is required for the changes, which discourages them from innovating.

Another topic is teaching with technology, which is increasingly utilised at the university for supporting teaching and learning. However, teaching technology is widely considered ‘not practical’ (Dr Ko) and ‘meaningless’ (Professor Haoz). On the one hand, for some disciplines, for example, mathematically related courses, the modernised approaches for teaching are not useful at all.

> Once I used slides in class, and it was awful. This is related to the nature of the subject of mathematics because calculating processes have to be written all the time. My students can follow my reasoning if I use chalkboard writing. This is a traditional teaching method of the subject, which has been inherited (Dr Ko).

On the other hand, ‘it requires a tremendous amount of time to understand and deploy these technologies, but the difference is not obvious in the classroom’ (Dr Whei). Applying modernised methods for teaching does not necessarily make teaching more efficient. Instead, it requires a significant amount of time

for academics to understand how to use the application. To summarise, some disciplines do not heavily rely on technology (even engineering, which is generally considered a more technologically involved discipline). The university's desire to improve teaching methods by introducing technologies is understandable, but it is the individual academic to determine whether such technology can be adopted in their disciplines.

In the Chinese context, the 'humanistic/human culture' (*rén wén* 人文) ideology is widely recognised as the core value of sustainable development. In addition, this value is applied to teaching and learning at Star University and enhanced by the institutional strategy. Academics held the idea that 'no matter what students' majors are, they must understand the traditional philosophy, culture and humanities at the undergraduate stage to cultivate a complete personality' (Dr Whei). This concept aligns with Star University's whole environment and wields a certain degree of influence on teaching practice, from the curriculum and pedagogy design to the day-to-day classroom.

The last key issue related to the curriculum and pedagogy is 'to establish the confidence that our quality of teaching and learning is good compared to other world-class universities' (Professor Wei). In the Chinese context, 'the scientific studies and the modernisation of higher education is relatively late[r] than the developed countries in the west. And academics sometimes lack confidence when thinking about the courses they design, but they are actually really good at it, and we are gaining more recognition and rewards worldwide' (Professor Wei). This ideological perspective describes how academics may think about their teaching, which can also benefit from university support.

6.1.4 Conclusion

As one of the National Key Universities of China, Star University has a long-standing reputation for providing quality education and achieving research outputs. The university is funded primarily through government fund allocation and student tuition. Star University has adopted a two-tier management structure in terms of teaching practice, with a relatively weak administration in between because of the limited personnel due to the 'design of the organisational structure' (Ms Jann – Teaching Secretary of Faculty of Engineering). This management structure may lead to a heavy workload for the administrator who links institutional instructions to the faculty and department practice, thus having a negative impact on communication efficiency.

From the institutional perspective (assuming the institutional strategic documents are representative of senior management ideas), Star University is adopting institutional strategies (both university-wide and educational-wise) as one of the main approaches to managing the university. From the strategic documents, the Communist Party of China's value has an overarching influence on the university's development to align with the government and national goals. In practice, however, the leadership on the party side of the university has fewer responsibilities in detailed implementation. In addition, another key strategy for improving the quality and competitiveness of the university is to promote internationalisation through academic mobility.

Following the interviews at Star University, the impression of how academics see institutional strategy is complex. The academic staff were generally aware of the existence of the strategy, owing to the wide and repetitive discussion among the staff. Some academics with administrative responsibilities tended to be more knowledgeable about the strategy and were willing to share with their colleagues. In other words, Star University's overall environment supports the

sharing and discussion of strategies. Academics generally had a mild attitude towards the university applying strategies to guide academic practice. However, some strong opposing opinions existed, especially concerning academic autonomy, which leads to questioning how academics felt about the interaction between managerial and academic concepts in higher education. According to academics' responses, the need for strategies to set priorities for a large-scale university like Star University was mostly understood. However, there is a concern that managerial interference with academic practice would limit their choices of what to research and what to teach.

At Star University, academics assumed that the university uses a 'shortcut' to improve the quality of education by recruiting academics with greater research achievements rather than providing training and support for academics to develop their teaching skills. In addition, the motivation to improve teaching is sometimes hindered by insufficient resources provided for academics to research and study their disciplines, for example, library resources. In specific, academics felt that access to academic output, for example, journals or books, are limited. Furthermore, services like scanning or reserving materials from the library for academics were not provided. These services may not be standardised support in all types of universities, but it is expected from academics in the so-called world-class universities.

As for the pedagogical sphere, teaching technology proves to be a struggle between strategic guidance and actual practice. Academics feel there is too strong an imposition from the institution on the application of modernised teaching methods as well as neglect of discipline characteristics.

Overall, strategy is widely recognised by academics at Star University as a management tool. Academics have also proven that institutional strategy impacts teaching.

6.2 Case 2: Cross University (UK)

6.2.1 University Context

6.2.1.1 Background: Traditionally A Strong Research University with Increasing Emphasis on Teaching

Cross University is located in one of the cities with the highest levels of economy and internationalisation in the UK. The university is known for its wide range of disciplines, including biological and medical studies, cultural studies, anthropology, astronautics, and computer science, all of which are historically strong and early developed fields. Cross University has a strong tradition of providing high-quality research and comprehensive education. Cross University today has an overarching objective of employing research to inform teaching. It is further explained in *Section 6.2.2.3 Educational Framework for Integrating Teaching and Research*. The key background information is listed in the following chart.

Figure 14. Background Information of Cross University

6.2.1.2 Funding Structure: Heavily Relying on Students' Tuition

The financial schemes of Cross University are listed in the following figures. The data is collected from the financial report (2021) on the university website.

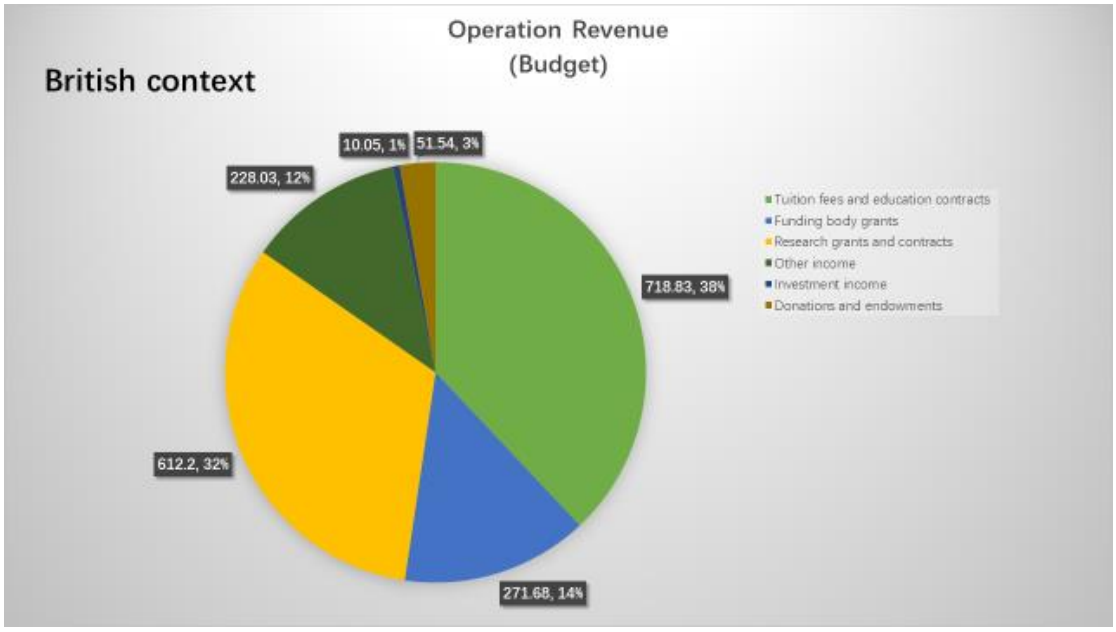

Figure 15. Operation Revenue of Cross University (2021)

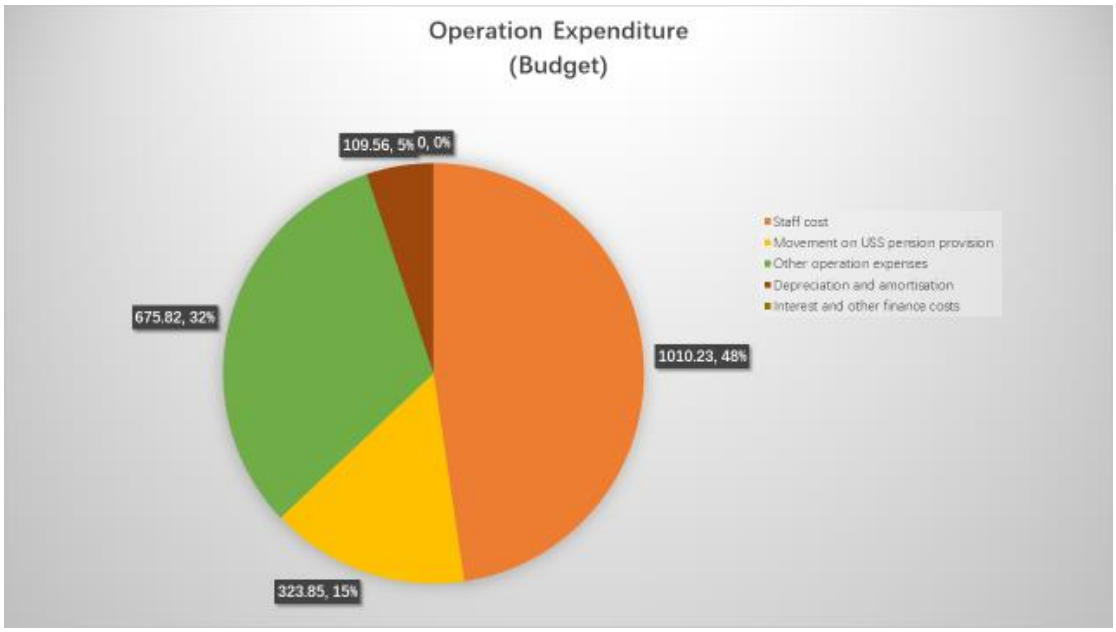

Figure 16. Operation Expenditure of Cross University (2021)

Two main resources of revenue for Cross University are student tuition fees (38%) and research grants (32%), and the total student fee was more than

£700,000,000 in 2021. It is coherent with the literature that English universities are decreasingly funded by public finance and ‘more depends on the number of students’ (Professor Harrison). This indicates a shift in the university-student relationship from the one where students want to be educated by teachers to the one in which the university 'needs' students. As a result, when it comes to teaching practice, it also recommends a transition in the interaction between academics and students. Later in *Section 8.1.2 Student as ‘Customer’ or ‘Consumer’*, this topic is further examined and discussed.

At Cross University, the financing structure operates as follows: ‘the money comes to the department first and then contributes to the central management’ (Professor Harrison). The issue is, however, that the department then has no idea what ‘money is spent on what’ (Professor Harrison).

6.2.1.3 Organisational Structure: Interactions between Strategic Units and Practical Units

The council is Cross University's governing body, and it is responsible for overseeing the university's management and administration as well as the conduct of its affairs, subject to the academic board's advice on academic policy and the approval of long-term plans. It delegated responsibilities for academic, corporate, financial, estate, and human resources management to the provost as chief executive. The president and provost is the university's chief academic and administrative officer. The provost, through the council, appoints vice-provosts to assist and advise the provost as needed. There are presently six vice-provosts at Cross University (for education, enterprise, health, international, research, and operations). Based on the university website, there are different branches of teaching and the simplified figure is shown as follows.

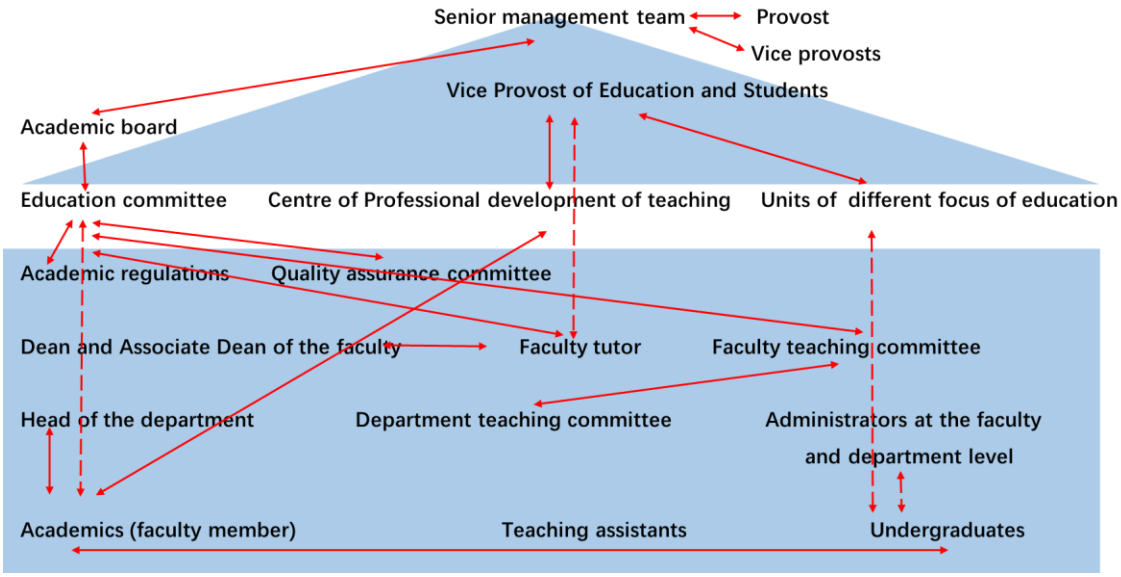

Figure 17. Organisational Structure of Cross University

The office of the Vice-Provost (Education & Students) covers the planning and coordinating function to improve education 'by engaging staff and students to raise the status of education' (Ms Cadderton – Director of Communications and Student Engagement). This strategic office has the responsibilities of formulating and implementing the education strategy.

Several sub-offices report to the Vice-Provost (Education & Students) office. The education committee's responsibilities include reviewing and assisting students, monitoring and reviewing the educational strategy and related teaching regulations, and approving new taught programmes and modules. The committee is made up of academics with management responsibilities from several faculties, as well as administrative professionals. Faculty tutors are also members of the committee. There are committees with identical roles at the faculty and department levels, according to the faculty tutor I spoke with: 'the faculty teaching committee's report up to the education committee, and the departmental teaching committee's report to the faculty teaching committee.' (Professor Randolph – Faculty Tutor).

The centre for professional development of teaching is critical to support education, including providing training and assistance to academics and students who are interested in becoming teaching assistants. The centre ‘works with colleagues who have similar interests to develop collaborative projects and share findings, work, and experience’ (Dr Lou – Principle Staff of the Centre of Professional Development of Teaching). In practice, ‘the centre run[s] courses for postgraduate, probationary lecturers and teaching fellows. We also work directly with colleagues in leadership within departments and faculties for faculty-facing initiatives (Dr Lou)’. This unit also supports the TEF. It supports academics to write the narratives and submissions to the panels. The centre works with quality assurance as well. It helps departments and programs with the annual student’s experience review (ASER) and the internal quality review (IQR).

The vice-dean of education and the head of the department, who primarily work on undergraduate teaching at the strategic level, are the principal leaders in charge of undergraduate teaching within the faculty. In addition, faculties have their own faculty tutor who does not usually teach but has an overarching responsibility for ‘the oversight of all education and student affairs in the faculty’ (Professor Randolph). This position works closely with the Vice Dean of Education. To draw a distinction, this position is ‘more operational and the vice dean [of education] is more strategic’ (Professor Randolph).

From the university structure, the other main stakeholders of undergraduate teaching are the academics who have either undergraduate teaching or supporting roles in undergraduates and the administrators who are supporting both academics and students for undergraduate education. Their responsibilities can be departmentally and individually diverse.

The path of undergraduate teaching from the strategy to everyday practice at

Cross University is clearly-structured and well-defined, together with reviewing units like the education committee. The arrangement of each level is similar from the vice provost of education and students to the associate dean and associate head of the department of education and students. In order to improve the quality of teaching and enhance academics' skills of teaching, the central unit places a strong emphasis on teacher training.

6.2.1.4 Faculty of Engineering

The engineering faculty at Cross University is founded at the beginning of the foundation of the university and become one of the largest faculty at Cross university. The number of academics is around 250 but there is no data on the number of undergraduate students in sum or yearly. There are seven departments including Biochemical Engineering, Chemical Engineering, Civil, Environment and Geomatics Engineering, Computer Science, Electronic and Electrical Engineering, Mechanical Engineering, and Medical Physics and Biomedical Engineering. The undergraduate programme is listed in the following table.

Bioprocessing of New Medicines (Business and Management)	BSc
Bioprocessing of New Medicines (Science and Engineering)	BSc
Physics with Medical Physics	BSc
Computer Science	BSc
Engineering (Biochemical)	BEng
Engineering (Biomedical)	BEng
Engineering (Chemical)	BEng
Engineering (Civil)	BEng
Engineering (Electronic and Electrical)	BEng
Engineering (Mechanical)	BEng

Table 10. Degree Programmes of Faculty of Engineering in Cross University

Based on the information collected from the website of the faculty of

engineering at Cross University, it is a relatively big faculty with a large number of faculty members and students, and therefore also receives more corresponding resources.

6.2.2 Institutional Strategy of Teaching

6.2.2.1 University Strategy: To Engage the World Outside and to Engage Peers Inside

The university strategy was found on the university website[25]. There was no documented version so I collected the information manually from the web pages.

The strategy consisted of five subsections, vision, mission, themes, enablers and founding principles. Cross University's goal as a whole is to inspire the faculties, students and partners to engage and interact with the greater world and to generate and share knowledge of global problems via research, education, and innovation.

- **Human Resources**

Academic staff is the main objective in the strategy for supporting teaching and student is the academic staff. In the university strategy, academic staff were discussed from recruitment and promotion, including ‘continue to attract, recruit and retain global talent’, ‘support and reward staff in line with the strategic objectives, merit and fairness with excellence as the key criterion for success’, ‘continue to remove barriers to recruitment, development and promotion of a diverse workforce’, and ‘to raise the satisfaction expressed by ethnic minority staff and staff with disabilities’. Based on the strategy content, the information

[25] The title of the strategic document and the website address cannot be listed owing to the anonymisation and research ethics.

was broad and vague, and the ‘key criterion of success’ has not been detailed to clarify the standard and expectations for academics. To summarise, the diversification, support, recognition of the value of academics, and cooperation between academics and students are at the core of Cross University from a strategic perspective.

- **Physical Resources**

The physical resources mentioned in the university strategy included providing housing support to accommodate increasing student numbers, building common space through launching a new student centre to offer new learning spaces and improving enquiry services and student facilities through the efficient timetabling process, facilities and technology (online space and tools) for teaching and learning. To summarise, the support mainly focuses on the space for teaching and learning with efficient approaches.

- **Financial Resources**

The university aims to increase surplus through a financial sustainability plan focused on modest growth in core activity, development of new income sources and maintaining tight control of cost bases. The financial status and support may be less directly linked with teaching from a practical way, but it is deeply embedded in all the actions from the recruitment of academics and supporting staff to the physical resources, including space, facilities, technology, and opportunities for students to have more access to non-tangible resources, such as library access. This topic is further discussed in combination with the financial structure of the university and student fees emerged from interviews.

6.2.2.2 Education Strategy

The aim of the formulation and implementation of such a strategy is to ensure that the university invests time, money, and energy to create an educational experience that enriches students intellectually, socially, and culturally. According to the education strategy, the development of education is influenced by the university tradition and values and by the external environment, including a rise in undergraduate tuition fees, increased competition for the best students nationally and globally, and sector-wide challenges in meeting student demand.

In detail, the university strategy primarily considered tuition fees, the diversity of students, student experience, employment, and pedagogy and curriculum (the assessment and feedback), as the main objectives. Moreover, the strategy incorporated TEF as an objective in accord with the government policy on assessing the quality of university education.

The core strategic approaches of the education strategy covered assessment and feedback and teaching technology. These are explained in detail in the following paragraphs.

- **Assessment and Feedback**

Cross University is aware that evaluating students' progress needs urgent attention to improve teaching quality. Assessment and feedback are two of the most important approaches to understanding what students have learnt and therefore, provide insight into the learning process. In the education strategy, Cross university planned to put in place both short-term and long-term action to support and improve the process of assessment and feedback, including the immediate focus on (a) the accelerated time for providing feedback, (b) the development of discipline-specific marking criteria, (c) the improvement of

communication between the central units and students, (d) the diversification of assessment, including e-assessments, a review of the grade point average (GPA) scheme, a root-and-branch review of assessment to better understand the assessment culture in every faculty, therefore identify recommendations for change and the resource needed to allocate, and (e) the development of the system that staff and student can record and monitor students' achievement. These strategic decisions aim to provide more in-time and disciplinary-specific feedback, together with more comprehensive approaches to assessing students' learning.

- **Teaching Technology**

According to the education strategy, the technology was developed and applied to extend and enrich the classroom experience. Cross University aspired to use technology in the classroom across the board, including developing virtual classrooms and flipping tools, supporting large classrooms with digital tools, improving online pedagogy and broader digital scholarship, providing digital infrastructure, and creating a digital environment. However, much evidence proves that there is no link between teaching technology and the quality of teaching and learning. This is illustrated in more detail from the fieldwork in the following section.

6.2.2.3 Educational Framework for Integrating Teaching and Research

At Cross University, apart from the education strategy, there has been an overarching framework for guiding teaching and learning practice. The framework was issued in 2017 aligned with the issue of TEF. The framework aims to enhance teaching quality by proposing that the curriculum should be research-based. The framework consists of the following six themes:

- Encourage students to connect with researchers and research as an integral part of their learning journey;
- Build the connected sequence of research activity into education programmes with the right balance between compulsory and optional modules;
- Encourage students to build interdisciplinary and multi-disciplinary connections;
- Integrate academic learning with professional work and for lifelong learning;
- Encourage students to produce output with external audiences;
- Encourage peer connections and connections with alumni.

The framework gives thorough instructions on how the university can integrate research into teaching. It requires the university to provide time and space for researchers, educators, students and practitioners to engage. However, the prerequisite of formulating and implementing such a framework takes the assumption that research-led education is quality education (which lacks theoretical underpinning and contextualisation). In particular, for undergraduate education, the existence and value of the teaching and research nexus remain unclear.

6.2.2.4 Faculty Strategy

The faculty of engineering at Cross University has its own strategic planning for undergraduate teaching. The overall philosophy of teaching includes engaging with students, giving students the skills to address the world's challenges, and producing innovative and multidisciplinary work.

In the document, the faculty explicitly illustrated its advantages of providing

cutting-edge learning methods including lectures, self-study, laboratories, workshops and tutorials, career-based facilitation, tutoring and mock employment activities, group work and flipped lectures, together with providing opportunities for doing a ‘real project’ to apply technical knowledge through the process of engineering design, field trips, and work with/be mentored by industrial and community partners.

Moreover, the faculty has implemented an innovative accredited degree programme which combines innovative teaching methods and an industry-oriented curriculum. It emphasises creativity, communication, interdisciplinarity, and teamwork by learning through projects and the social context of engineering. Students can participate in interdisciplinary activities and acquire professional skills through real-world engineering projects. The programme intends to equip students with engineering specialisations and knowledge from other disciplines in their undergraduate studies. This framework personalises engineering degrees.

To summarise, strategic decisions for teaching quality at Cross University have an explicit focus on attracting capable academic staff. From the curriculum and pedagogy perspective, assessment and feedback is the core objective along with the development of teaching technology. Importantly, the education framework clarified that research-led teaching is quality teaching. For disciplinary development, the faculty emphasises the interdisciplinary characteristics of engineering studies.

6.2.3 Interviews Analysis

The following sections explore how academics understand the institutional strategy and relate themselves in terms of teaching. it starts with presenting

awareness, attitude, and academics' recognition and response towards the institutional strategy, including the response towards the punishment and rewards in the strategy, academic mobility, expansion, and resources.

6.2.3.1 Diverse Awareness

The overall awareness and general attitude towards the institutional strategy from the participants at Cross University are described to give an insight into how academics perceive the institutional strategy. The detailed information is listed in the following table.

	Positive			Neutral			Negative			
Aware	6	The 1960s The 1970s	3 3	3	The 1950s The 1960s The 1970s	1 1 1	1	The 1960s	1	10
		Male Female	4 2		Male Female	3 0		Male Female	1 0	
		Professor Associate professor Faculty tutor	4 1 1		Professor Lecturer	2 1		Professor	1	
		Married With kids	6 5		Married With kids	3 2		Married With kids	1 1	
		(Previous) administrative/ leadership role	6		(Previous) administrative/ leadership role	2		(Previous) administrative/ leadership role	1	
Partially aware	1	The 1980s	1	1	The 1980s	1	4	The 1960s The 1970s	2 2	6
		Male Female	1 0		Male Female	1 0		Male Female	3 1	
		Lecturer	1		Lecturer	1		Professor Associate professor	2 2	
		Married With kids	1		Married With kids	1 0		Married With kids	4 4	
		(Previous)	1		(Previous)	0		(Previous)	3	

		administrative/ leadership role			administrative/ leadership role			administrative/ leadership role		
Not aware	0			3	The 1970s The 1980s	2 1	8	The 1950s The 1960s The 1970s The 1980s	1 2 2 3	11
					Male Female	2 1		Male Female	7 1	
					Professor Reader Lecturer	1 1 1		Professor Reader Associate professor Lecturer Teaching fellow	2 2 1 1 2	
					Married With kids	3 3		Married With kids	8 6	
					(Previous) administrative/ leadership role	0		(Previous) administrative/ leadership role	0	
	7			7			13			

Table 11. Academics' Awareness and Attitude towards Institutional Strategy from Cross University

According to the data collected from the academic and leadership staff, the overall awareness of institutional strategy was relatively low, especially considering that the strategy aims to encourage all stakeholders to participate in the implementation. Answers like ‘I'm not sure what the strategy is’ (Professor Sobbin) or ‘I don't understand exactly what it means’ (Dr Nadonnay), frequently appeared. Some academic staff were aware of the necessity to understand the strategy, but still, they had no clear idea, ‘I should understand and I should know what it is but I don’t really [know]’ (Dr Waxmann).

Among the participants who were ‘partially aware’ or ‘aware’, the understanding of the university strategy was mainly about the ‘expansion of the university and the growth of them [students]’ (Professor Sobbin), ‘excellence of teaching and research’ (Professor Eilas), and ‘the alignment of teaching and research’ (Dr Hernandez). In terms of the education strategy, student evaluation and satisfaction, including the annual review and feedback after the course, assessment design and a balanced amount of assessments, curriculum design, and teacher training attracted the most attention from the academics.

Approaches to knowing institutional strategy were through meetings at the department and faculty level, as well as emails with links or attachments of the updated strategies. The latter approach was more commonly applied, but it was not effective. Because staff receive a huge amount of emails every day as a main approach to communication, it is impossible for them to read all. Usually, emails with strategic information are not the priority.

Based on the demographic information collected, management experience was the only influential factor in whether academics were aware of the institutional strategy. However, even some leaders felt their awareness of strategy is only limited to their management position.

For example, Professor Ferguson, the vice-dean of research, had a very thorough understanding of the research development but had a limited understanding of the strategic decisions on teaching. As he said, ‘I am more aware of the research both at the university level and faculty level. For teaching, I know less’. Based on this, teaching and research are not closely combined but act as two parallel routes from the institutional management at Cross University in practice.

Interestingly, one special case was that a junior lecturer who has been at Cross University for about two years was very familiar with the institutional strategy through ‘reading the strategic document before applying for the job’ to see whether he ‘fits the style of the university and maximise the chance of getting the offer by understanding university’s priorities’ (Dr Hernandez). However, this is not necessarily related to academics’ overall awareness of the strategy, nor has an impact on undergraduate teaching.

6.2.3.2 Polarised Attitude

Whether or not academics think the strategy has a positive influence on teaching, most of the participants admit it does have an influence. Academics’ attitude towards institutional strategy’s impact on teaching was categorised into three types, namely, ‘positive and supportive’, ‘indifferent’, and ‘negative and opposing’. Seven participants held the ‘positive and supportive’ attitude, the same number were ‘indifferent’, and as many as thirteen were ‘negative and opposing’. The ‘positive and supportive’ attitude was used to categorise the answers that having the institutional strategy has a positive influence on the development of the university and education as a ‘backbone’ to rely on and refer to (Dr Gunnar). The ‘indifferent’ attitude described answers given by

academics who felt that the institutional strategy may have a limited influence on teaching, and they do not care about or pay attention to the strategy. As for the ‘negative and opposing’ attitude, academics who held this idea think the institutional strategy can have a negative influence or harm how education should be done in the university and even try their best ‘not let it affect teaching’ (Dr Dyanston), which expresses a conflicting attitude and generates tension between the academics and the leadership level who formulate and implement the institutional strategy.

According to the demographic information, there seems no significant trend of which group of people tend to have a ‘positive and supportive’ attitude, ‘indifferent’ attitude, or ‘negative and opposing’. Each group has academics who hold different attitudes.

For the academics who held the ‘positive and supportive’ attitude, one idea was that having a widely-agreed strategy is a clear sign for everyone regarding the ‘common priorities’ (Professor Krati) and it is important in ‘collecting all the strength in such a huge university like Cross University’ (Dr Matteo). It is ‘necessary for people to have an idea of the direction of such a huge institution’ (Professor Chaloun). In practice, the strategy makes the re-evaluation of assessment possible by ‘first setting the strategic thinking at the university level’ (Professor Eilas). Following this logic, some ideas that are coming into action are results of strategic planning. It means that the strategy can be the first step to changing or developing an institution.

For another, what the strategy aims at can be coherent with the career development of academics ‘I think the strategy is great… Achieving research excellence, achieving equality and diversity, and achieving excellence in teaching are the things I think as academics, we strive for’ (Dr Natava). In this case, strategy is not an extra burden for academics but is closely related to their

expectations for their academic career.

For those participants who felt 'indifferent', institutional strategy is only visionary, lacking practical value: 'whatever in the strategy is not from the practical perspective, maybe some, but I am not sure they have an actual impact on our decision process' (Dr Waxmann). Also, since junior academics' participation in the formulation and implementation of strategies is low, they felt that it is the 'business of senior management'. There must be some 'mechanisms to convey university strategy to the senior management' but 'it is not true that we all are within that network' (Dr Derya). In other words, junior academics do not feel included in the institutional strategy, neither participating in the formulation, nor being involved in the implementation.

The first reoccurring issue mentioned by academics who had the 'negative and opposing' attitude is the logic of formulating and implementing the institutional strategy from top to bottom, which increases centralisation and is not appreciated by academics who strive for academic freedom and autonomy. What one academic thought is that 'institutional strategies, if it is top-bottom, it is basically regulations, usually, not particularly helpful. If it is something organic developing from the field, the teachers, the researchers, that is ideal' (Dr Nadonnay).

Moreover, the increasing emphasis on the strategy makes academics felt less trusted:

> [Institutional strategy] suggests the academic is not trusted to teach a module without having lots of oversight. And you do get a sense that you wonder how it would work if the power were entirely given to the academic to teach a module (Dr Dyanston).

This further generates tensions between academics and the senior management of the university.

The other idea is related to the disciplinary characteristics. In other words, the institutional strategy does not consider the disciplinary differences, and the implementation can be unsuccessful when to apply the same teaching methods to different subjects.

> There is a trend to diversify the classroom teaching with fancy ways and I am sure [the institutional strategy] also has some emphasis on it, but it is not always necessary to apply all of these. For my class [mathematics-based and physics-based discipline], traditional lectures are good. I don't really need the flipped classroom or that much immersive discussion (Dr Vinnty).

This also relates to the teaching technology that was explicitly encouraged in the strategic document. Although the institutional strategy tried to promote the utilisation of innovative teaching methods with technology, for some subjects, it only caused more effort and time from academics but with a similar outcome of teaching and learning. Even for engineering studies, 'some modules [only] require a board' (Professor Penn), but academics felt they are encouraged to use more technology.

To summarise, at Cross University, some academics support the idea of having an institutional strategy to set priorities for the entire university. A similar number of academics do not care about what are institutional strategies or how they influences academic practice. academics who disagree with the increasing use of strategies feel that the organic development of academia is harmed by these regulations.

6.2.3.3 Academics' Recognition and Response to the Institutional Strategy

- **'Carrot and Stick' – Reward vs 'Punishment'**

Academics were mostly aware of the 'baseline of teaching that needs to be met' (Dr Lach) and 'teaching is necessarily governed by those regulations'. However, academics generally categorised the regulations or strategic decisions into two directions: those with punishing characteristics and those with rewarding characteristics. Academics were more aware of and tended to meet the requirements that would otherwise have a negative impact if not done, while they were much less aware of actions that can bring rewards, even though the information was listed in the strategic document and shared with the community in the same way. For example, academics would definitely avoid complaints from students for neglecting their duties of teaching, which may result in an investigation of their practice, unsuccessful promotion, or even the termination of their job. While teaching awards seem not to be motivating enough for academics to be more devoted to the teaching practice.

It is an interesting phenomenon in the higher education sector for two reasons. First, universities usually do not apply any regulations with a punitive sense due to their flexible and free nature. Second, academics realise the nature of these regulations and therefore compromise or become unwilling to cooperate. Although there can be a certain degree of exaggeration of the severity of the regulations from academics, it is a fact that academics are more regulated by the institution than they used to be.

- **Academic Mobility**

In the strategic document, recruiting and cultivating brilliant academic staff was

one of the key objectives. However, what caught my attention is that academic staff also left Cross University in more recent years. There are several reasons related to the strategic decisions of Cross University.

For one, Cross University has expanded massively in student numbers over the last two decades. Although the university has also recruited more staff in these growth years, the ratio cannot be kept as it used to be, and academic staff now have to give larger classes and have more teaching responsibilities.

Participants mostly held the idea that drastic expansion certainly causes issues of space. Although in the strategic document, the university sought to ‘explore ways of reforming the timetabling process to improve our use of learning spaces’, in practice, the interview data suggested that there seems to be no significant improvement yet. ‘Space is now a massive restriction on teaching. There just isn't enough room for all the courses and students’ (Professor Sobbin). For one, the so-called ‘learning space’ in the strategic document is not necessary for teaching. Academics confirmed that the space for students has significantly improved with the new student centre, ‘but that's not the lecture room’ (Professor Penn). For another, the logic could never be expanding the space first then the student numbers; it is always the other way around. However, construction takes much more time than recruiting more students, so there seems to always be a gap of not being able to settle the students with enough space. This situation causes more stress for academics when it comes to teaching because the conditions for teaching can be unpredictable and they need to do more administration and coordination for teaching.

Along with insufficient space, the massive number of students leads to an increasing workload for academics. Dr Norman stated that because of the massive expansion and the university is growing too quickly, academics are struggling: ‘people leave, like a lot of people, because of the overwhelming

teaching. A lot of people don't want to do teaching anymore. They don't want to be at the university anymore'.

For another, it is also the overall environment of the university: 'there's a lot of disillusionment. [Academics] feel unsettled, sometimes not being wanted, so people do leave' (Dr Dyanston). In other words, the competition inside Cross University seems relatively fierce, with job security not assured.

In addition, Brexit may also have its influence on the limited mobility of academics. By the time of this thesis, Brexit has happened. Without the reference and data on academic mobility of Cross University and the UK, I cannot say whether this means more academics have left Cross University, but what the university can pay more attention to is that a sense of belonging and welcoming can be important whether academics want to stay at the institution or not. This can become a practical approach to attracting, recruiting and retaining global talents that is emphasised in the institutional strategies.

6.2.4 Conclusion

Cross University has a long history of inclusivity and producing high-quality research outputs. The university's institutional strategy is influenced by governmental policies to enhance education and students' experiences as well as the transition of the financial structure. The tuition fee is the largest percentage of Cross University's revenue; therefore, the university's strategy primarily emphasises teaching and learning as a gesture to be responsible to students. The organisational structure is generally two-tier: institutional level and faculty level (including departments). The education committee is established at the institutional, faculty and departmental levels to support teaching and learning. In particular, the engineering faculty has a faculty tutor,

who is responsible for aligning the strategies across different levels and supporting education practice from a discipline-specific perspective. Cross University's institutional strategy is broad and visionary. The education strategy gives more information from the assessment instruction and feedback perspectives as well as teaching technology. The engineering faculty strategy uses a multidisciplinary focus as the main pedagogical and curriculum development direction, as well as enhancement of teaching practice innovation.

Overall awareness of the institution's strategy is difficult to conclude from participation because academics react differently upon hearing the term 'institutional strategy'; these differences seem unrelated to their demographics (e.g. gender, academic title, length of academic experience). Attitude is polarised. Some academics favour institutional strategy and consider it important when setting priority. Others hold negative feelings and think the institutional strategy defies the university's logic and values by imposing top-down management, hindering education from free and collegiate development (especially by neglecting differences across disciplines).

In more detail, academics recognise strategy more strongly from the punishing impact rather than the rewarding impact. In other words, academics tend to ignore the rewards or awards for teaching but are clear with the baseline of teaching responsibilities. This can be interpreted as academics primarily doing only the minimum for teaching and lacking the motivation to do more. Based on the information collected from academics, expansion and resources are the institutional strategy's most recognised key themes. Additionally, the institutional strategy influences academic mobility. The university wants to attract global talent by explicitly expressing its vision, mission and value in the strategy. However, the massive expansion and unstable environment caused in part by the strategic decisions may lead to the leave of some academics.

6.3 Case 3: Maple University (Canada)

6.3.1 University Context

6.3.1.1 Background: A Decentralised and Autonomous Institution

Maple University is located in one of the most international, financial and economic centres of the country. It is a public research university established in the 1900s, and it is one of the oldest universities in Canada. It has a renowned, worldwide reputation in the study of particle and nuclear physics and quantum materials. It has a wide range of disciplines emphasising multidisciplinary studies and the innovation of higher education. The demographic information is listed in the following figure.

Figure 18. Background Information of Maple University

6.3.1.2 Funding Structure: Diversified Funding Sources

The following two charts are the funding schemes from Maple University. As a key resource that the university allocates for development, the financial status and composition can illustrate the structure and emphasis of the university.

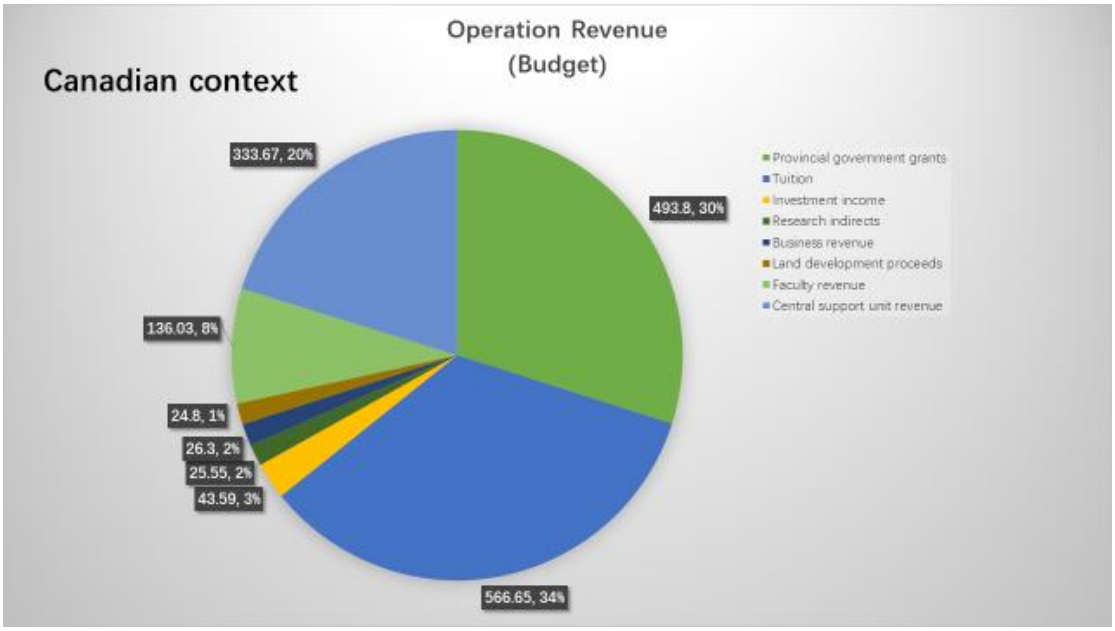

Figure 19. Operation Revenue of Maple University (2021)

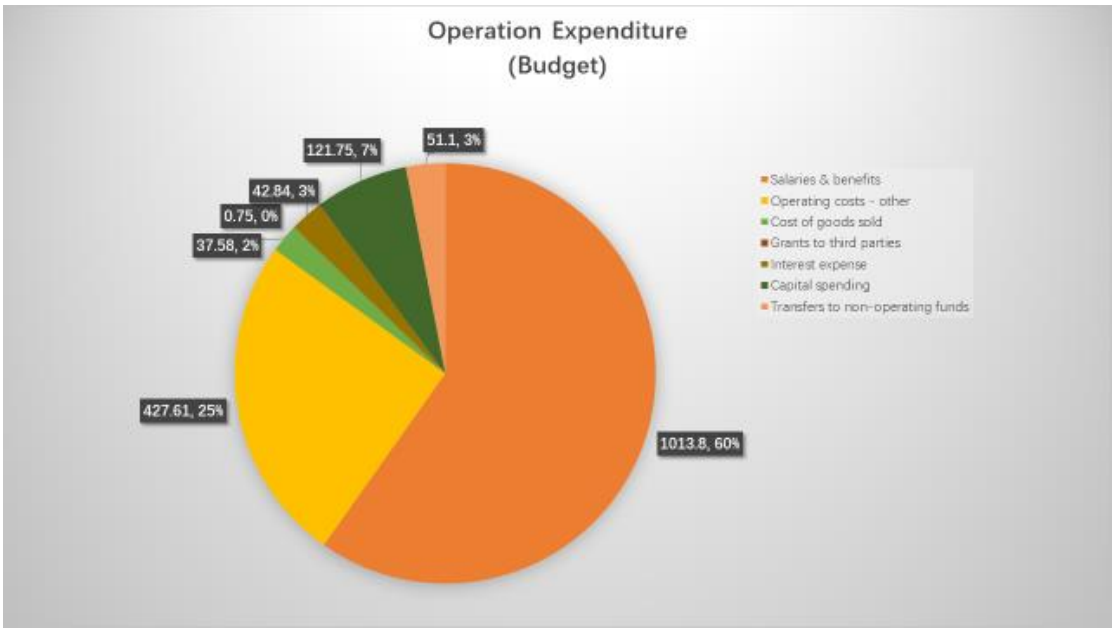

Figure 20. Operation Expenditure of Maple University (2021)

At Maple University, higher education is funded mostly through tuition (34%), followed by provincial grants (30%) and central support unit revenue (20%), which is aligned with the literature that the majority of the funding for universities in Canada usually comes from the government.

One of the main characteristics of the federal government is that the province has a high level of autonomy, and so does the funding scheme for higher education. The funding for higher education is closely related to the local economy. In other words, grants for higher education increase when the local economy is flourishing, while when the local economy is not promising, support for higher education would suffer as well. Moreover, tuition fees account for a large proportion of the revenue, making it more related to how the university would support students.

6.3.1.3 Organisational Structure: Academic Units, Professional Units, and the Ones In-Between

Most Canadian universities have a bicameral system of governance specified under their corporate charter involving an administrative board of governors and an academic senate. Boards are assigned responsibility under the charter for financial and administrative policy. Senates are responsible for academic policy, including approving programmes of study, courses and curricula, and admission requirements. The boards are superior to the senates in the nature and scope of their authority (Eastman et al., 2018).

At Maple University, there is an official chart of the university structure. However, with the consideration of anonymisation and the focus on undergraduate teaching, I adjust and make the figure with more clarity in the following figure.

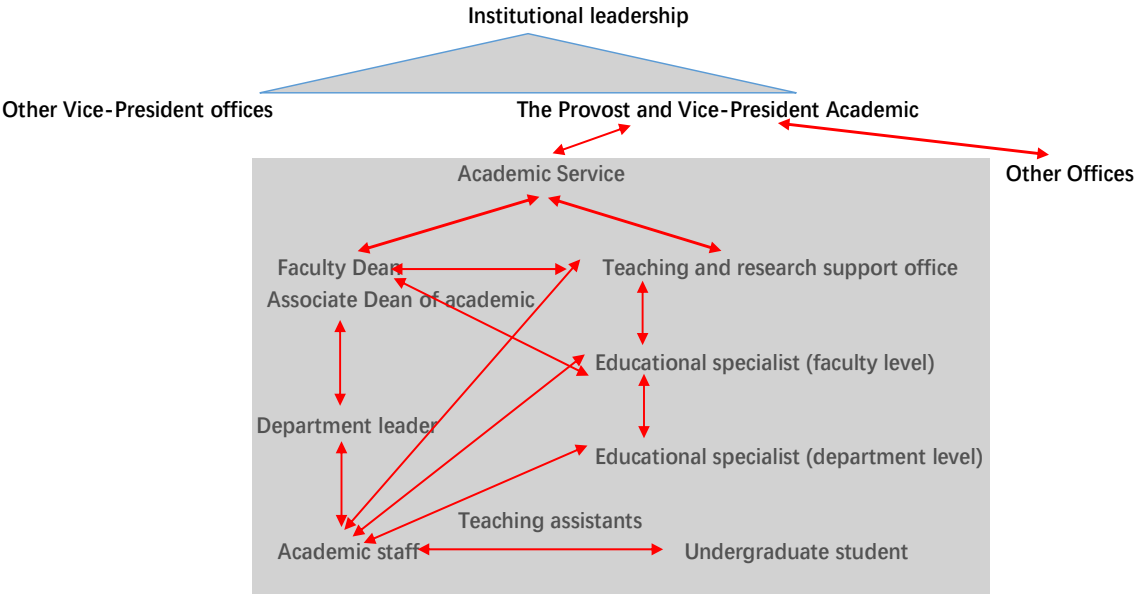

Figure 21. Organisational Structure of Maple University

The institutional leadership team of Maple University, as mandated by the *University Act*, is composed of a chancellor, convocation, board, senate and faculties of the university. The board of governors is in charge of property and revenue, while the senate is in charge of academics. The convocation, which is made up of alumni, administrators and faculty and has a quorum of twenty members, confers degrees and diplomas. The president of Maple University, who also serves as vice chancellor, is the university's main executive officer. The president of the university is in charge of overseeing the university's academic operations including making recommendations for appointments, convening faculty meetings and forming committees. For academic practices, the provost (who also serves as vice-president academic) is the most related position in the university structure.

Following that, the main practice units are passed down to the faculty and department levels. What makes Maple University unique is the presence of a strong central unit dedicated to academic assistance, particularly teaching

practice. Then there are faculty-level and department-level units with similar responsibilities.

6.3.1.4 Faculty of Engineering

The faculty of engineering at Maple University is the second-largest faculty at the university. The undergraduate degree is structured such that first-year students obtain a basic understanding of engineering fundamentals before choosing one of 14 undergraduate programs including biomedical engineering, chemical engineering, chemical and biological engineering, civil engineering, computer engineering, electrical engineering, engineering physics, environmental engineering, geological engineering, integrated engineering, material engineering, manufacturing engineering, mechanical engineering, and mining engineering.

6.3.2 Institutional Strategy of Teaching

For the next three sections, the focus is on strategic documents, including the overarching strategy for the whole university, education initiative and faculty strategy to illustrate the findings of how the university addressed undergraduate teaching from a strategic perspective at different levels.

6.3.2.1 University Strategy: For Broader Scope and Wider Participation

I found the university strategy on the official website[26]. The document of 78 pages started with vision, purpose, values, and goals of the university. It explicitly expressed its purpose to pursue excellence in research, learning and

[26] The title of the strategic document and the website address cannot be listed owing to the anonymisation and research ethics.

engagement to foster global citizenship and advance a sustainable and just society' locally, nationally and globally through the value of 'excellence, integrity, respect, academic freedom and accountability.

The institutional strategy contains main themes, including inclusion, collaboration, innovation to instruct the development of people and places, research excellence, transformative learning, and local and global engagement. In Canada, one distinguishing feature is that the university considers indigenous people as one of its main concerns and values. In addition, the strategic document has quoted feedback from faculty members and alumni to share their experiences at Maple University.

- **Human Resources**

In its institutionally-wide strategy, Maple University mentioned not only the 'people' including students, faculty, staff, alumni and residents, as well as Indigenous partners, but also included postdoctoral research fellows, medical trainees, lifelong learners, emeritus faculty members and retired staff – in addition to volunteers, philanthropic supporters, colleagues at other institutions, and those with whom work in the local, provincial and federal governments. In other words, the institutional strategy included a wide community of people who share relations with the university. The strategic plan is to attract, engage and retain a diverse global community of outstanding students, faculty and staff. Moreover, Maple University has prioritised the importance of talents in relation to academic practices.

- **Physical Resource**

One key point as the physical resource of Maple University is the 'place', which

refers to creating welcoming physical and virtual spaces to advance collaboration, innovation and community development, support the ongoing development of sustainable, healthy and connected campuses and communities, and cultivate a diverse community that creates and sustains equitable and inclusive campuses. Instead of emphasising the concrete construction of the facilities for undergraduate teaching, Maple University put more focus on building community for academic practices. In addition, the university placed a strong emphasis on technological advancement and strives to incorporate the most cutting-edge technology into academic practice.

- **Financial Resource**

There appears to be no direct information in the institutional strategy regarding how the university plans to invest its financial resources in teaching. However, this is addressed in the education initiative in the following section.

The institutional strategy is, on the whole, broad and visionary. It covers a lot of ground but does not go into great detail. It is more about expressing expectations and delegating implementation to lower-level functional units.

6.3.2.2 Education Initiative

There is no institutional-wide strategy for undergraduate education at Maple University, but there is a powerful initiative with the clear goal of improving undergraduate teaching by using a scientific method of understanding how to teach, as well as encouraging evidence-based and interactive teaching methods. It was widely recognised by academics and was considered to have ‘changed all the professors, now we have a completely different way looking at teaching’ (Professor Lloyd).

The initiative started from the faculty of science but has had a profound impact on all faculties, departments and subjects. It was funded for five years by a Nobel Prize winner in the beginning. Maple University then has been allocating its own revenue to keep the initiative running after running out of the original funds, which has a long-lasting and wider influence on the teaching practice of the university.

The university has primarily improved teaching through the creation and implementation of teaching technologies, but also through the enrichment of academic and professional positions for undergraduate teaching, with financing from this project. The details are further illustrated in the subsection, *teaching method and technology* in *Section 6.3.3.3 Academics' Recognition and Response to the Institutional Strategy* and *Section 8.2.1 The Development of the Academic Career for Teaching Faculties,* with reflections from academics.

This initiative has a significant impact on how Maple University views and implements education, particularly for undergraduate education in science subjects. It conveys a clear message from the university and the faculties that teaching is extremely important, not only with increased funding but also the time and attention that academic and administrative employees devote to it. Moreover, the transition to a scientific approach to teaching and learning has resulted in a shift in teaching practice that becomes 'evidence-based'. In addition, academics have had a greater chance of referring or being referred by other academics when they share their teaching experiences. On the one hand, it provides a venue for academics to share their teaching expertise and knowledge. On the other hand, it encourages cross-disciplinary and multidisciplinary research.

6.3.2.3 Faculty Strategy

For the faculty of engineering, the strategy regarded the disciplinary characteristics and the periodic planning regards the institutional goals. It serves as a guiding document for the departments and schools as they develop their own strategic plans and initiatives. There are six priorities including (a) university for the future (demonstrating innovation throughout the institution from new pedagogical approaches to administrative processes to providing lifelong value to students, alumni, faculty and staff), (b) future of work (equipping students, staff and faculty with the skills to thrive in a rapidly changing professional landscape), (c) inclusive leadership and respectful engagement (fostering the future's inclusive leaders and cultivating a culture grounded in respect, understanding, humility, wellness, balance and joy), (d) solutions for people (developing the health, technology and equity solutions that serve our communities and the individuals within them), (e) thriving cities and communities (improving how we move, work and connect to create healthier, safer and more productive communities), and (f) planetary health (spearheading efforts to accelerate global environmental action). These priorities have formed a framework for decision-making on the resource allocation across the faculty.

To summarise, the institutional strategy from Maple University has broadly mentioned the widening participation of higher education stakeholders and attracting global talents for academic practices. The education initiative has significantly emphasised the importance of education. In addition, it redirected teaching at Maple University to become evidence-based and cultivated a community for sharing and discussing teaching and learning. The faculty strategy has contextualised the institutional goals. In particular, it addressed the importance of teaching in equipping students with knowledge and skills in the changing professional field of engineering.

6.3.3 Interviews Analysis

The following sections go through how academics interpret the institutional strategy and connect it to themselves. The main aspects include awareness, attitude, recognition and response.

6.3.3.1 Wide Awareness

To start with, the overall awareness and attitude towards the institutional strategy of the participants are described to give an insight into how academics perceived the institutional strategy. The detailed information is listed in the following table.

	Positive			Neutral			Negative			
Aware	17	The 1950s The 1960s The 1970s The 1980s	2 5 4 6	2	The 1970s	2	0			19
		Male Female	8 9		Male Female	1 1				
		Assistant Professor Associate Professor Professor Instructor Senior Instructor Professor of Teaching	3 2 6 2 2 2		Associate Professor	2				
		Married With kids	17 9		Married With kids	2 2				
		(Previous) administrative/ leadership role	9		(Previous) administrative/ leadership role	0				
Partially aware	0			2	The 1950s The 1960s	1 1	1	The 1950s	1	3
					Male	2		Male	1	

					Female	0		Female	0	
					Senior Instructor Professor	1 1		Professor	1	
					Married With kids	2 2		Married With kids	1 1	
					(Previous) administrative/ leadership role	0		(Previous) administrative/ leadership role	0	
Not aware	1	The 1980s	1	0			0			1
		Male	1							
		Assistant Professor	1							
		Married With kids	0 0							
		(Previous) administrative/ leadership role	0							
	18			4			1			

Table 12. Academics' Awareness and Attitude towards Institutional Strategy from Maple University

There was a high level of awareness of the institutional strategy. Reading strategic documents, a wide range of consultations, broadcast emails, meetings and debates at various levels were all applied to convey institutional strategy. Academics believed that the information in the strategy is repeated on multiple occasions and the content is 'nicely constructed' and in a 'consumable manner' (Dr Parkel). The higher quality of content made it easier for academics to read, comprehend and even memorise the strategy's contents. Academics also believed they have a good understanding of the strategy thanks to a variety of resources and support, especially when 'they sometimes follow the money' (Dr Legrass). In other words, the strategy sometimes attracted more attention when there is a funding scheme or financial aid for academics. Moreover, academics acknowledged that strategy is not only about 'the written documents' but 'also embedding in different activities' (Professor Mengty). This reflects the idea that strategy can be both deliberate and emergent.

Although the awareness of institutional strategy at Maple University was relatively wide, the faculty and department strategies that were even more recognised. 'Rather than talking about the university's institutional strategy, instead, I focus on the mid-level faculty strategy. Because… at the faculty level, it is clear to me what our strategy is for' (Dr Ronaldy) and 'I am much more clear about the department's [strategic] decisions. Because they are individuals. When I ask what do you think to a particular person, they are obviously able to give me much more direct feedback' (Dr Edsan). That is to say, academics felt more related to the strategies that can influence their academic practice and have easier access to the people who are in charge of it.

Moreover, based on the interviews, the lower-level strategies of the faculty and the department seemed well aligned with the strategy of the university. 'We built our [faculty] strategic plan after the university's strategic plan. And obviously,

we make sure there is a very strong alignment between the two' (Professor Anandil).

On the contrary, if there is any misalignment, it can be difficult for academics to respond and react in a more expected way. As Dr Ronaldy said, it comes 'down to the individual professors who feel like they are being told in 50 different directions, and just always being stretched'. In other words, alignment between different levels of strategy assists academics in better understanding and incorporating the university's strategic decisions. This is also to say that the institutional strategy must be universal for all disciplines, whereas the faculty and department strategies must be more detailed and discipline-specific.

6.3.3.2 Positive Attitude

In general, academics at Maple University felt positively about the impact of the strategy. Feedback includes 'I like how the university handles it' (Dr Passiphet) and 'it's a working system' (Dr Weien). Although on a daily basis it may not have a direct impact, 'there are long term effects' (Professor Torb) and 'eventually, ultimately, yes [the institutional strategy has a good influence]' (Dr Ronaldy).

The strategy was considered as 'the kind of roadmap for what the university priorities are. So that will determine the priorities for the projects that we work on and take forward' (Professor Coyle). It is beneficial in increasing resource allocation with the widely accepted priorities and academics generally see the evidence that having strategies can better improve and support undergraduate teaching.

What matters differently among academics about the institutional strategy at Maple University may be the issue of tenure. This is also related to outside

pressures that academics felt at different stages in their lives. In the Canadian context, at least at this particular university, the status of ‘tenured’ or not can lead to different understandings and efforts in teaching.

Assistant professors, mostly born in the 1980s, either have younger children or do not yet have children. This makes a huge difference. Academics who do not have children seem to have ‘good balance’ and ‘good feeling’, and ‘have free time to perform’ (Dr Aecher). Whereas early-career academics who are parents of young children seem more panicked, especially the females. Dr Passiphet, who joined the university last year and is a mother of two young children, said that there is no such thing as a work-life balance at this certain period of her life. Although Maple University has been trying to protect early-career academics by not allocating teaching assignments, female academics still seem to have to consider their families more. And that is why, when asking for any further support from the university, two female assistant professors were asking for childcare.

As for the associate professors, they had rather different perceptions. These participants were mostly born in the 1970s or early 1980s. All the participants, both male and female, expressed a high level of pressure and imbalanced life pace, using metaphors like ‘fighting fire’ (Dr Edsan) and ‘yoga pose’ (Dr Ronaldy). For the associate professors, promotion equated to more stress. Similar to the assistant professors who have young children, female assistant professors also mentioned such situations and hoped for more support from the university.

According to full professors, who were mostly born in the 1950s or early 1960s, their work-life balance has been improved through achieving full professorship and all their years of working experience by “being more willing to say ‘no’ to

different requirements" (Professor Yemek).

In addition, with grown-up children, professors who were mostly born in the 1950s or early 1960s find they now have more flexibility. As Professor Othnirity said, when 'starting out, especially for women before you get your tenure and promotion at the same time when kids are little, it was very difficult, but since my kids have grown up, my time is my own'.

In this rather senior stage in academia, one obvious factor that influences academics' work-life balance is the workload of the service and administration, and here I am not talking about leadership but the academics whose main responsibility is teaching and research. In general, academics are expected to contribute about 20% of their contract time to administration. That, however, takes far more time and work than anticipated. Furthermore, service and administrative duties frequently appear on short notice, interrupting the initial work schedule and therefore further disrupting the balance.

In the context of Canadian academia, tenure is a major deciding element. I looked into the participants who are tenured and those who are not yet tenured separately, trying to understand both sides. On the one hand, faculty members who have already been tenured admit that attaining tenure was a major concern early in their careers, and it had a considerable impact on how they allocate their time and energy to teaching, research and service. This topic is further explored in *Section 9.1.3 What are the Implications for Teaching and Research Nexus at World-Class Universities?* The new professors, on the other hand, did not appear to be concerned about being tenured.

In addition, one voice that considers the institutional strategy with a negative impact is that it can exacerbate internal competitiveness, potentially leading to

a situation where academics focus more on what can get them promoted rather than good teaching. This certainly generates tension between academics and could potentially generate destructive competition, which is absolutely against the value of the university.

To summarise, junior and senior academics have distinct challenges, and the university's ability to differentiate and give appropriate support is crucial. Moreover, there needs to be a balance between encouraging and stressing academics in the competition.

At Maple University, in addition to being influenced by the strategy, academics 'try to influence the strategies too' (Professor Lloyd), which established a very positive and interactive attitude towards the institutional strategy. I did not come across this idea very often when I was interviewing academics, or even leaders of the university. This is extremely important both because of the collegial nature of the higher education sector and the growing conception of how to understand 'strategy'. In relation to what I have illustrated in the conceptualisation of strategy, both 'strategy as plan' and 'strategy as pattern' can be influential to the university practice, and the latter idea needs to be more recognisable.

6.3.3.3 Academics' Recognition and Response to the Institutional Strategy

- **Teaching Methods and Technology**

According to academics' reflections on the impact of institutional strategy on undergraduate teaching, one of the major influences was the diversity and creativity in terms of teaching methods, in particular, the well-fitted use of teaching technologies to engage students.

At Maple University, there was a sense that academics have both autonomy and support to design courses by using the method that they want and their choices are trusted by the university. The combination of traditional methods and modernised approaches work together to serve the effectiveness of teaching. For example, Dr Weien has retained a traditional method with a

> Handwritten note kind of teaching style, and then during class in terms of pasting and information retention [it] is most helpful if the student can be writing the same set of notes as I am writing, so they tend to be not a ton of information in one lecture, and in the process of writing, they also get to, I think, retain the information a little better (Dr Weien).

For the most advanced utilisation of technology, Dr Aecher applied an 'immersive teaching lab for virtual field teaching', which 'sets up a virtual lab with surround projectors, and maybe some mixed reality classes, to try and create the benefits of the fieldwork experience . . . in [a] controlled environment'. It essentially modernises teaching by incorporating new technology and attempting to teach students who learn in a variety of ways by removing barriers to their learning.

Professors also had a significant degree of autonomy when it comes to crafting curricula and experimenting with new teaching methods. Professor Lloyd has developed an advanced teaching method by taking the 'flipped class' to a new level by experimenting with 'just-in-time' teaching techniques. As Professor Lloyd explains, it works because:

> It has a very well-defined schedule every week that Monday afternoon and evening, and Tuesday, there is assigned reading for the student. Then on Tuesday evening, the students do a short quiz online. Then the teaching assistant goes through and reads all the quizzes and in

> Wednesday morning. They email me a summary of what were the most difficult issues for the students. Then I have just a few hours before I teach the class . . . I change my lecture to address the issues that the students had on the quiz. So then I have the class meeting on Wednesday afternoon. It is a completely flipped classroom.

This method is considered peer learning that 'for the whole class I spend asking the students questions where they form into groups to debate the answers. So they [students] help each other learn' (Professor Lloyd). The backup plan was 'if students did not get it, I give them a second chance to debate it more largely among the whole class, and if they still did not get it, then I give a little mini-lecture, a little five-minute lecture to explain the concept that they had difficulty [in understanding]' (Professor Lloyd).

At Maple University, academics can innovate and implement new ways of teaching with a minimal amount of administrative and regulatory work. By that, I refer to the reporting process and procedures by the institution on pedagogical and curricular changes. Moreover, I could feel the passion of Professor Lloyd when talking about this innovative teaching method in detail because he is the one in charge of the whole process from formation to implementation. Apart from providing necessary support and evaluation, the institution did not make any significant changes to the original concept and design of this specific teaching method.

- **The Environment and Culture**

One of the most distinguishing features of Maple University is that the institutional strategy has an impact on the creation of a widely shared environment. Rather than discussing how strategic decisions affect daily work

and teaching practice at the university, academics emphasise the importance of the supportive culture they foster. In addition, it is not about being pressure-free or completely decentralised, but rather about how academics are treated from an emotional perspective that the university cares about them.

Although it is common for world-class universities, such as Maple University, to always ‘pursue excellence’ (Dr Weien), most academics recognised and were satisfied with the university culture and environment, which gives them alignment with their personal pursuits and a sense of belonging. Moreover, academics feel they are trusted and understood by the university. The most mentioned descriptions are ‘supportive’, ‘collegial’, ‘friendly’, ‘collaborative’, ‘flexible’, ‘adaptive’, ‘providing opportunities’ and ‘having great people’. Inclusiveness and equity are also frequently mentioned by academics. As widely recognised values that are enhanced by repetition in strategy, this allows for academics who are from different backgrounds to feel more welcomed. The university also provides a ‘safe’ and ‘protective’ environment for academics ‘with the support from the strong faculty union’ (Dr Parkel). The unionisation of Canadian universities was illustrated in the literature review. In practice, it is proved to be the key support for academics to strive for benefits. Therefore, academics were intrinsically willing to understand and comply with the institutional strategy. ‘I think everyone has seen and are convinced by the purpose that . . . the university instruction is important[;] it is part of our mission’ (Professor Tesfay). When it comes to teaching and learning, Maple University was considered ‘definitely a good learning environment’ and ‘a very good environment for education’ (Dr Weien).

The overall communication among different levels seems smooth. Academics had ‘positive experiences in working with people in the upper-level administration’ (Professor Haddison). Moreover, the department environment

and culture were more critical and closely related to academics' day-to-day work, and academics mostly have a positive experience. 'It depends a lot on the chair of the department and our department is good' (Dr Edsan). Based on what I have learned from the faculty members at Maple University, the strategy provides a coherent procedure for establishing a supportive environment.

To summarise, Chapter 6 presents findings from the strategic documents and interviews at Star University, Cross University and Maple University to explain the institutional strategy for teaching and learning in different contexts. In the following chapter, I compared the three case studies for explaining the similarities and differences between the three universities based on several themes.

Chapter 7 The Comparison of Case Studies

This chapter compares the three case studies and discusses the similarities and differences in perceptions and status quo of institutional strategy in relation to teaching and learning in the Chinese, English and Canadian global research-intensive universities. The chapter compares findings from strategic decisions for developing teaching in the universities and emphasises the reasons for academics' divergent perceptions of the strategies.

7.1 The Organisational Context and Structure

In the previous chapter, I presented the organisational context and structure of Star University, Cross University, and Maple University in three separate case studies. In this section, I compare the university context, focusing on the universities' structures.

Star University, Cross University and Maple University are all public and research-intensive universities with multiple disciplines spanning medical studies, natural sciences, applied sciences, social sciences, and humanities and arts. Cross and Maple Universities were established in the 1800s, whereas Star University was established in the 1900s. The universities are considered large scale, with more than 30,000 students (student number exceeds 50,000 at Maple University) and 6,300 faculty members. All three universities are ranked in the top 100 in mainstream global rankings, including QS World Ranking (2022), THE World University Rankings (2021) and ARWU Rankings (2021).

The funding structures of the three universities differ due to government funding. At Star University, government funding (36%) is the second-highest revenue source to tuition fees (44%); these two sources provide the majority of Star

University's income. At Cross University, the revenue is primarily from tuition fees (38%) and research grants (32%). Notably, the government grant is not a major source listed in the university's financial report. At Maple University, tuition fees (34%) and provincial government grants (30%) are the largest revenue sources. Based on the operating revenue of three universities, one trend becomes clear that despite the public funding, the tuition fee is now the main source.

Star University reports the highest education expenditures (94%); however, its financial report lacks a definition and explanation of such expenditures. The only certainty is that Star University's education expenditures do not include information technology, infrastructure and research support, welfare and employment or housing expenses because these items are listed separately in their operational expenditures. At Cross University, a majority of spending supports staff costs (48%); at Maple University, staff costs are 60%. Additionally, although these universities seem to allocate most of their funding to faculty members and education-related activities, the current information offers no confirmation of how much funding is directly given to teaching and learning or undergraduate education, in particular.

The management mechanism for Star University, Cross University and Maple University consists of three levels: institution, faculty and department. In terms of undergraduate teaching, a majority of practices happen at the faculty and department levels. The central units mostly comprise strategic functions, and the three universities share similarities in their undergraduate education's central-unit structure and leadership. The vice-president/provost academic is primarily responsible for education and student affairs. However, the mechanism for undergraduate teaching differs at the faculty level. Star University has only one professional staff: the teaching secretary for

undergraduate education. Cross and Maple Universities have at least one office or committee consisting of academic staff and professional staff. In other words, the link between the central units and faculties for teaching is stronger at Cross University and Maple University than at Star University. Additionally, all three universities have a central unit for teaching and learning, including supporting academics' teaching practices. At Maple University, the faculty and department have created an office or position for teaching and learning as well. Thus, the alignment of undergraduate-teaching strategies is stronger between the university and the faculty and department. Although the functions and responsibilities are similar, the influences can differ due to the faculty member's individual differences and whether they utilise the available teaching and learning support.

7.2 Institutional Strategy and Undergraduate Teaching

This section primarily aims to address the first research question: 'How does institutional strategy address undergraduate teaching?' I examine the strategies and initiatives at the institutional, educational and faculty levels of three universities, looking at the prioritisation of corresponding resources for undergraduate teaching. I also reflect on the alignment and misalignment between 'strategy as a plan' and 'strategy as a pattern'.

7.2.1 The Perceptions and Understandings of World-Class Universities

Because this study was conducted to comprehensively conceptualise and contextualise the 'world-class university' with empirical evidence, the following sections are the definitions and critiques illustrated by participants from three universities to present a global image of a 'world-class university.

- **How World-class University is Defined by University Staff**

To begin with, I present some general perceptions of the term ‘world-class university’ from interviews with academic, leadership and administrative staff from three universities. There are several approaches to categorising whether a university is world-class or not.

The first perspective comprises teaching, research and student support, all of which were the most widely mentioned areas during the interviews. For ‘world-class’ specifically, the belief was that research should aim for three levels, including ‘academia, industry and the humanity development’ (Professor Hing – Star University). In addition, teaching was considered a primary function of the university, and in a world-class university, a key characteristic is a link between teaching and research in undergraduate teaching. An interesting phenomenon is that, although both teaching and research were mentioned as the cores of a world-class university, research is always mentioned first and given more attention.

More recently, student support has begun attracting more attention from universities and is considered a unique characteristic of the world-class university and is related to the following topics of resources. Staff at the three studied universities all agreed that the university must have enough resources, including funding and infrastructure, to support students. Opinions differed regarding whether the universities’ scales are decisive or not. Some academics considered a ‘world-class university is definitely a big university’ (Dr Waxmann – Cross University), but others argued that scale does not matter because ‘there are small universities that are really excellent in specific fields’ (Dr Passiphet – Maple University). Based on the fieldwork, the size of the university does not seem to be crucial. However, size may relate to other aspects of a university, including the diversity of disciplines and the number of staff, students

and resources, which could potentially be a determining factor in whether a university is world-class or not.

Another perspective is the environment that the university constructs. According to the interviews, the overall environment of a world-class university should be (a) international and intercultural, (b) cooperative and collegial, and (c) equitable and diverse. In detail, the first key concept is an international and intercultural environment, which is more comprehensive than the concept of higher education internationalisation. Not only is it about the interaction between people from different backgrounds, but it also constructs a new culture for the university through time.

Being cooperative and collegial refers to connections and networks. A world-class university also has strong local/regional/national networking, both inside and outside of the campus, which provides vast collaboration opportunities. Inside the campus, the most mentioned concept is ‘multi-disciplinary’ or ‘inter-disciplinary’. The external collaboration usually includes academia, industry and government. The environment should be an academic community that provides opportunities and platforms for all kinds of collaboration.

An equitable and diverse environment is not a new topic, but it is gaining more attention. There are other considerations to be world-class beyond excellence. This includes the diversity of the student group as well as how they are being treated in the system. Not only the students, the proportion of individuals with different properties and attributes in the members of the community, including faculty members and staff, is also important. Moreover, ‘the system must support better inclusivity and equity, so that more cultural diversity can be prosperous’ (Dr Parkel – Maple University).

The intercultural, collegial, and inclusive environment makes a university ‘world-class’. Such an environment also makes a university ‘desirable for people to go’ (Dr Legrass – Cross University), therefore empowering academics to focus on their academic practices rather than worry about personal relations or discrimination.

The next perspective for understanding the world-class university is the personnel of the university, including the academics and students (graduates). In the previous section, a world-class university was defined as a desirable place that people want to attend because of the overall environment, which includes staff and students. In addition, a world-class university is also constructed by global talents. For the staff, more focus is given to the academic faculty who are ‘leading in the academic field’ (Professor Chaloun – Cross University). For the students, the focus is both on the students who are recruited and the university’s graduates. Student enrolment is more about quality and diversity, whereas graduates are more about the position they have after graduation. A world-class university aims to cultivate graduates for leadership positions for all walks of life. In particular, the specific criteria ‘Nobel Prize winner’ causes debate in its value. Some academics think it is a key indicator that defines a world-class university. However, more participants think that this indicator does not prove the overall university quality or teaching quality.

Another argument is that ‘students in the world-class university should have the habit of keeping things with the things happening in their life and it can be cultivated through the learning process’ (Dr Ko – Star University). Though a very abstract description, the core idea is that students in a world-class university care more about what they can do with the things happening around them. According to academics, this is a key difference between the students at a world-class university and other universities.

Another perspective focuses on the challenges that the university deals with as well as the knowledge that the university generates. In general, there are three levels of challenges: global, national and local. There are two main arguments regarding what level of challenges a world-class university should deal with. Some academics considered that 'local needs define the areas where the university should be developing' (Professor Rodrigo – Cross University), meaning that local issues should be the primary focus of a world-class university. However, more academics thought that world-class universities should 'target the global challenges' (Dr Hernandez – Cross University). There is another concern regarding whether world-class universities should focus on global issues that have a wide impact on more people, or the latest emerging issues. This debate is increasingly important when COVID-19 Pandemic happened.

Last is the reputation and recognition through impact and history. It is widely discussed that a world-class university is usually recognised globally rather than just as a 'self-declaration' (Professor Song – Star University). Moreover, the university should also 'be recognised by the local community, academia and students' (Professor Song – Star University). Finally, it should '[have] a reputation of good quality than simply the recognition' (Professor Tesfay – Maple University). Reputation and recognition are usually constructed through time and impact. However, the reputation is more open to discussion because it is usually constructed over a very long time, namely the history of the university, which is not realistic for a newly built university.

- **How World-class University is Criticised by University Staff**

Certainly, there are some critiques about the concept of a 'world-class

university'. First and foremost, although this term is recognised by many academics, many consider it a marketing and branding idea unrelated to the 'real value of the university', and is used 'to charge more from the students' (Professor Penn – Star University). It supports the idea of Barnett (2021) that the 'world-class university' is not a concept for categorising or developing higher education development. However, with the advertisement of this idea and wide recognition, developing world-class universities seems to have become a goal or vision for research-intensive universities, and it influences the management of universities.

Rankings also play a role in this topic. Apart from the most mentioned issues of oversimplified, limited, biased, unclear, dubious, methodologically inaccurate and research favoured, ranking is also questionable in that academics usually do not pay attention to rankings or have little understanding of how they work, whereas administrators and leadership do. However, both teaching and research quality are decided by academics who are doing these work. Therefore, those who are crucial to defining ranking and those who read usually do not care about rankings, which raises the question that how can rankings be reliable if the people who are increasingly developing and referring to the rankings are those who cannot influence indicators.

From a narrower scope, although rankings now focus more on disciplines, institutions are still the main objectives of rankings. Universities usually have strong subjects and weak subjects, but those differences may be ignored for highly ranked institutions. In contrast, lower-ranked universities may have certain disciplines with high teaching and research reputations, but they may not attract much attention from the students because their overall ranking is low.

Based on the fieldwork, there was a sense that ranking systems are 'western

model favoured' as well as 'English language favoured' (Professor Ping – Star University). Interestingly, participants from three universities mentioned specific universities they felt are 'world-class universities', including the University of Oxford, the University of Cambridge, Massachusetts Institute of Technology, Harvard University, Stanford University and Princeton University. Admittedly, these universities are highly regarded worldwide. However, what makes these universities 'famous' can be different. In addition, whether should universities copy others and become similarly westernised with English as a lingua franca is also questionable.

- **Summary**

In general, the perception of 'world-class universities' is not agreed upon by university staff, and the focus and definition may change over time. More recently, 'more attention is given to the teaching than it is used to be' (Dr Passiphet – Maple University).

Although academics critiqued the term 'world-class university', stating that it has very limited academic value in higher education research, more problematic is the close relationship with the global ranking system, which should not represent each other equally. The idea of 'world-class university' was first expressed in the 1990s (see, e.g. Batty, 1992). It has indeed enhanced and spread widely after the construction of the first global ranking system—Academic Ranking of World Universities—in 2003, and the 'world-class university' concept is further strengthened by more studies from the 2000s (see, e.g. Altbach, 2003; Sadlak & Liu, 2007; Salmi, 2009). However, what 'world-class university' means should start with determining what 'university' means, both from an institutional perspective and a societal perspective.

The ultimate question, therefore, is what is the relationship between universities or world-class universities and rankings and how the relationship should be? In the beginning, the ranking systems designed their indicators regarding how good universities are, while at this point, rankings also have a certain level of influence on how universities set priorities through internal management. There is a trend where some academics felt that 'the indicators are technical, which can be made instead of gain' (Professor Hoo – Star University), and 'if you pay too much attention to the global ranking, you may just work "for" the ranking instead of becoming a truly world-class university' (Professor Vieira – Maple University). On the other hand, rankings sometimes are considered a means to motivate some academics to do a better job (Dr Micle – Maple University). Therefore, how the ranking is referred to, both from the institutional and individual levels, needs balance.

As for global rankings, my argument is not that they should be abolished completely, but that they should further justify their value. I also argue that their value should be decreased when defining and differentiating universities, especially regarding teaching quality because of its complexity that should not be represented with oversimplified numbers. Moreover, using a scoring mechanism based on the total scores is not reasonable because the reason for higher or lower total scores can vary widely, but the simplistic 'high' or 'low' rank doesn't show or explain those differences. An alternative suggestion is using a 'tier system' to categorise universities as well as having a larger variety of concerns and emphasis.

7.2.2 University Strategy

To compare the university strategy, I primarily looked into the mission, vision and value of the universities. The key points are collected in the following table.

	Star University	Cross University	Maple University
Mission	- Curriculum reform - Personnel system reform - Staff training - Student fostering - Research innovation - Management improvement - Finance management - Campus construction - Internationalisation	- Supporting student - Valuing our staff - Financing our ambitions - Excellent systems - Sustainable estate - Communication and engagement	- People and places - Research excellence - Transformative learning - Local and global engagement
Vision	- Support the national and social development - Improve the university system with Social Sciences philosophy - Improve capability of inheriting and creating culture - Establish a global reputation for developing humanity through talent fostering	- Academic leadership - Integration of research and education - Addressing global challenges - Accessible and publicly engaged - Supporting local community - Delivering global impact	- Inspiring people, ideas and actions for a better world
Value	- Discipline and honesty - Innovation and collaboration - Pursuit of excellence	- Excellence and advancement on merit - Fairness and equality - Diversity - Collegiality and community building - Inclusiveness	- Excellence - Integrity - Respect - Academic freedom - Accountability

		- Openness - Ethics - Innovation and creativity - Leadership development - Environmental sustainability	

Table 13. Mission, Vision, and Value of Star University, Cross University and Maple University

Based on the strategic documents from the three universities, research universities, especially the highly ranked ones, show significant similarity in the institutional mission. The most shared themes are related to students, staff, systems, curriculum and pedagogy, research, finance, and campus.

As for the vision, the three universities focused on the same level of vision in their institutional strategies, meaning that the universities aim to create a better world through their activities. Specifically, they aimed to meet challenges and create knowledge ultimately for humanity as a whole. Although attention is given to local communities, primarily at the city and provincial levels (Star University focuses on the national level), world-class universities give more attention to the global and international levels.

Value is more diverse than the previous two aspects. On the one hand, different cultures and political forms of government affect the university's value. Higher education institutions are organisations under the overarching context of their countries. Although it may not always be the case, universities in this research all share a certain level’s alignment with the government. On the other hand, the institutional value is a key characteristic that differentiates the universities from one to another and directs how they can achieve their goals and purposes. Their shared values include excellence, innovation, collegiality and collaboration, integrity, and equality. For Star University, the main value is Socialistic ideology with Chinese characteristics that are embedded deeply within the institutional strategy. The university aims to closely align with the Communist Party’s policies and guidelines on how to develop the country. Cross University focuses on diversity and inclusiveness, developing leadership and environmental sustainability. As for Maple University, academic freedom and accountability are explicitly expressed as institutional values.

7.2.3 Educational Strategy and Initiative

The three universities' educational strategies were presented differently in terms of the format and focus, and there were differences in the philosophical understandings regarding the function and purpose of undergraduate education.

For Star University, emphasis was given to curriculum reform and quality assurance, which were both aligned with national policies. For reforming curriculum and pedagogy, actions included creating new majors to fill vacancies in the labour market, providing greater flexibility in curriculum choice, increasing the number of small classes, enhancing the ideological and political classes, improving liberal education courses, combing online courses with offline courses, providing practical studies and innovative education, internationalising education, and compiling textbooks. As for quality considerations, the key themes were improving administration related to teaching and learning, improving the evaluation system, diversifying teaching quality assessment participants including leadership, academics and students, and adding more forms of evaluation.

For Cross University, assessment and feedback were of most importance for improving education. In addition, the guiding idea for education, including undergraduate teaching and learning, was research-led. The university acquiesced that integrating research into teaching is the solution for quality teaching, and this assumption was deeply incorporated in the strategic decisions for undergraduate education.

The core concept for education at Maple University was evidence-based with scientific approaches for analysing and improving undergraduate teaching and learning. There were three key components of the education process, and they worked in sequence with one another. First, clear learning goals are provided

to establish what students should learn. Second, what students are actually learning in relation to the learning goal, problem-solving ability, conceptual understanding and attitudes is determined. Third, student learning is improved using the data collected during the previous two steps.

Based on educational strategies and initiatives, the focuses and the corresponding approaches are very different. Star University emphasises the curriculum and pedagogy. All the measurements are on a curriculum basis. In other words, improving curriculum and pedagogy is the key to improving teaching quality. Therefore, the evaluation also focuses on assessing curriculum and pedagogy. Cross University, the guiding value for education is research-based. Students are the core of teaching and learning. All activities are instructed by students' needs and demands. Maple University's education for undergraduates is strongly evidence-driven. It emphasises the whole learning process and focuses on collecting data during the process to improve education quality.

7.3 Academics' Perception and Response to the Institutional Strategy

In this section, I first summarise the findings of academics' response to institutional strategy from three universities in China, the UK and Canada and then explain the similarities and differences between the organisational dimension and the individual dimension.

7.3.1 Academics' Responses to Institutional Strategy

In the following table, I present the collected information on academics' awareness of, attitude towards and recognition of institutional strategy from Star University, Cross University and Maple University.

	Star University	Cross University	Maple University
Awareness	Wide awareness	Differential awareness	Wide awareness
Attitude	Generally mild with some extreme cases	Polarised attitude	Generally positive
Recognition (influence of strategy on undergraduate teaching and learning)	- Talent recruitment and poaching - Resources for supporting academics - Curriculum and pedagogy reform	- Attention to the baseline of teaching and punitive regulations - Academic mobility	- Diversification of teaching methods and technology - Encouragement of a shared culture for teaching and learning

Table 14. Comparison of Academics' Awareness and Attitude towards Institutional Strategy

Concerning awareness, most of the staff at Star University and Maple University were relatively aware of their institutional strategies. However, the staff become aware of the strategy in different ways at each university. Although both universities have used numerous approaches to highlight their strategic decisions, at Star University, discussion with peers was the main reason strategies are widely recognised. At Maple University, awareness of institutional strategy resulted from the high percentage of the staff who participate in formulating or implementing institutional strategy. In contrast, at Cross University, staff's awareness of institutional strategy varied on an individual basis.

Regarding the staff's attitudes towards institutional strategies, the attitude at Star University was generally neutral, though some individuals held strong opinions opposing the institutional strategy. The main objection to the strategy

was its negative influence on academics' free choice concerning education practices. The attitude at Cross University was polarised; some academics supported the value and increasing use of the institutional strategy, while others believed it is meaningless. Academics argued that setting a shared priority is an effective approach to developing a university, but the centralisation created by the strategy is not ideal for the organic development of academia. The general attitude at Maple University was supportive. Although some staff believed there are deficiencies in formulating and implementing strategies, they thought that having an overarching idea for how the university should be developed, especially regarding teaching and learning, is reasonable.

Regardless of academics' attitude towards the strategy, the majority of the interview participants admitted that the institutional strategy influences the teaching and learning of undergraduates. The institutional strategy is closely linked to resources and resourcing through setting the priorities of academics' practice. In particular, academic mobility was a shared theme in the responses. Although universities emphasise the importance of recruiting capable faculties, these scholars are usually strong in research, which may not support better teaching. Moreover, different approaches to retaining and supporting academics after they join an institution can lead to different results. For example, overly stressful or unstable environments may cause academics to leave the institution, whereas inclusive and collegial environments can encourage academics to engage and apply more effort to their work. Therefore, the influence that institutional strategy can have on the university environment should not be ignored.

Additionally, academics recognised the diverse government involvement in the institutional strategy and teaching practice. At Star University, the central government held a relatively dominant role. As was clear from the strategic

documents and the participants' perceptions and understanding, the development and prioritisation of the university are closely aligned with national goals. The government provides instructions on what it wants to be developed through public funding. Star University is a National Key University, which traditionally prioritises achieving the national development goals of China, so academics always have a sense of collectivism and national honour. Some academics believed that teaching can improve and develop the country, which relates to their sense of responsibility for teaching. On the contrary, at Cross University and Maple University, the government's involvement was very limited. Academics from Cross University and Maple University occasionally mentioned national funding or schemes for teaching and research, but not as a dominant influential factor.

The following sections further explain the detailed reasons behind the diverse response from academics regarding the organisational dimension and individual dimension when positioning and interpreting the institutional strategy. The organisational dimension refers to the operating environment of the university, including the external and internal environments, while the individual dimension refers to individual academics' teaching philosophy.

7.3.2 The Operating Environment

- **External Environment**

Here, I apply two models to illustrate these three universities' external environments, namely, PEST (political, economic, social and technological). The summary is presented in the following table.

University	Political	Economic	Social	Technological
Star University	The higher education system is influenced significantly by the central government	The funding for higher education is still increasing from the government's perspective	Having an undergraduate degree is highly recognised by society due to the traditional Chinese value	More attention has been given to teaching technology, but there are issues with the integration into the classroom
Cross University	Higher education can be instructed to different directions under the different political parties. The overall priorities remain consistent.	The funding for higher education is primarily supported by students' tuition fees.	The value of the undergraduate degree is linked to the jobs that the students can get.	There is a certain level of technological development in higher education, and there is a trend to adopt more into practice.
Maple University	The provincial government has more influence on higher education than the federal government.	Funding for higher education is largely from students' fees.	The undergraduate degree is closely linked with the labour market.	Teaching technology has been developed for some time and it is relatively advanced and well fit in practice.

Table 15. External Environment that Universities Operate in

To summarise, the function of the universities and the societal expectations are

different in these three contexts. For the overall environment in China, in addition to the widely recognised concept of the knowledge economy, there are two main characteristics related to higher education development: a) the traditional philosophy of 'nothing is more important than studying and becoming a scholar' and b) the national strategy of 'developing the country through science and education'. The function of higher education is strongly related to the development of the society and nation as a whole. Therefore, higher education has a strong reputation and receives resources from the government. In other words, the support for developing higher education is enormous and the funding is selectively sufficient. Moreover, collectivism is dominant as a shared value, which also influences higher education development, as institutions and academics tend to respect the overall strategy and guidelines. In the English context, although there are changes in political parties, the quality of higher education is always the emphasis. Currently, the external environment is more related to and influenced by marketisation, which moves the expectations towards higher education from the stakeholders, including the students, parents and academics, to the labour market. In Canada, higher education is also influenced significantly by the market and more managerial approaches are adopted.

- **Internal Environment**

For the internal environment, I studied the university structures concerning the undergraduate in *Chapter 6 Case Study: Findings from Chinese, British and Canadian Universities*. These universities have a similar stratification of the basic units, and the functions of each unit are also similar.

In all three universities, the main difference is the human resources that are put between the university and faculty on supporting teaching. From the fieldwork,

Star University put less effort than Cross University on human resources linking the institutional level of strategic decisions to the faculty and department practice of teaching and learning. Among all, Maple University put the most human resources to support undergraduate education at each level of the university.

One key office with a very important role in undergraduate education is the central unit, which goes by different names but primarily holds similar functions, including teacher training, administrative support of students, and teaching and learning evaluation. However, the importance and influence of this office in the three universities are different.

At Star University, this office places more emphasis on administrative support for students, including admission, registration, examination, qualification and graduation. It also provides administrative support for the academics, including programme and grant application, the teaching workload and teaching evaluation. Teacher training is also provided by the office as a primary function, but the training is mostly for academics early in their careers and attracts less attention from better-established academics. Although the office has the function of regulating undergraduate education, its influence is relatively limited. On the one hand, although both academics and students have direct access to the office, the relationship is not close. According to the academics, they rarely mention the office as either support for themselves or for students. On the other hand, because the office has mostly administrative functions, it is naturally less deeply involved in the academic aspect.

At Cross University, this office's function is to train all the stakeholders who have a teaching mission. The training function is structured in the sense that it is supported by not only administrative staff but also academic staff. In addition,

the centre works closely with the education framework (details in *Section 6.2.2.3 Educational Framework for Integrating Teaching and Research*), which aims to develop research-led teaching at Cross University. With the wide recognition of this overarching framework, the office has more close relationship with academics' teaching and learning practices, which also includes more staff joining the office. During the interview, academics frequently mention the office when asked questions related to institutional support for undergraduate teaching.

At Maple University, the office is widely recognised and embedded in undergraduate education through professional development in teaching and learning, integration of technology into teaching and learning, development and delivery of distance education courses and programs and other technology-enhanced learning opportunities, through the Institute for the Scholarship of Teaching and Learning (ISoTL), and through scholarly approaches to curriculum and pedagogy. The office has both academic staff and administrative staff, and the office is headed by academic staff. Moreover, there are subunits which have similar functions at the faculty and departmental levels, which constructs a more coherent structure for providing both training and support to academics.

From the management perspective, there were two issues mentioned by academics. First, at all three universities, the academics thoughr there are too many layers of management, and the stratification makes communication less effective. Moreover, academics wanted the strategy to be 'bottom–up', which means that it is driven more by practice than by leadership and management. However, is it possible for university management and strategy to be 'bottom–up'? It is commonly understood that an organisation's management is more likely to be the formulation-and-implementation process. Although universities

are considered a special type of organisation with an emphasis on knowledge, it is still difficult to turn managerial habit upside down. What can be improved is providing more communication routes from the bottom to the top and giving more decisive power to academics when it comes to teaching.

Second, another commonality is that leaders usually do not do any undergraduate teaching anymore because of their managerial commitments. However, some academics questioned whether the leaders who no longer teach undergraduates should instruct and guide the teaching practice. This leads to other questions, for example, how much effort leaders should make in teaching practice to be able to guide undergraduate teaching from a strategic perspective. The majority of the academics did not hold a strong argument, but it would be more convincing if the leaders can involve in teaching practice than only instruct academics on how teaching should be done.

7.3.3 Teaching Philosophy

To understand the possible reason that individuals may interpret institutional strategy differently, this section interprets individual academics' subjective assumptions and choices of teaching. In this study, the main factor is academics' teaching philosophy, which is mostly related to how academics think of good teaching and good teachers.

According to the interviews at the three universities, there seemed to be no significant difference in demographic background. Academics from different national contexts shared more similarities than differences. In detail, I concluded the attitude, perception of undergraduate education's function and purpose, perception of career characteristics, and perception of teaching capability as their teaching philosophies.

Academics' attitude toward teaching is that they value teaching as important for students and teaching is the main responsibility of a university teacher. However, this result may be because the individuals who agreed to participate in this research are those who care about teaching and those who do not care did not agree to participate.

Academics from the three universities had very similar answers regarding the perception of undergraduate education's function and purpose. The core concept is to train the next generation and transmit knowledge. In detail, it is to equip undergraduate students with knowledge of the discipline, together with their interests in learning, creativity and problem-solving capability. Moreover, academics mostly hold the idea that undergraduate education is more about 'student's learning' rather than 'teaching'. The key is to engage students both in the classroom and beyond.

There are two very different ideas regarding the perception of academic career characteristics. The majority of academics considered the core difference between universities and research institutes is teaching, especially undergraduate teaching, and thus the key distinction between university teachers and researchers is teaching. However, some academics related their career in academia more to their PhD experience, which focused more on research. They held the idea that a career at a higher education institution is an extension of the PhD experience. In other words, their career is about research.

There are two perspectives for teaching capability: nature and nurture. The former idea is that the ability and capability of teaching as a profession is more about talent, and training academics to become perfect teachers is difficult. The latter idea, on the other hand, thinks that teaching capability is more about the

experience and knowledge of teaching as a profession, so every single academic staff could become good at teaching. However, whether or not they want to do so depends on whether they pay enough attention and put forth enough effort.

7.4 Summary

In this chapter, a comparison of Star University, Cross University, and Maple University is presented, including the organisational structure of universities, the institutional strategy and undergraduate teaching, with two primary focuses on the perception and understanding of world-class universities and the comparison of the institutional strategy of the university's mission, vision, and value, as well as shared themes on students, staff, management mechanism, curriculum and pedagogy, research, finance and campus. Overall, world-class universities share similar goals in their university strategies, while the objectives in the education strategies of the three universities are different, which can be the result of the different responsibilities and positioning of higher education in the three countries in terms of the relations with state authority, market and academic oligarch (details are presented in *Section 4.5 Conclusion* for *Chapter 4 Research Contexts and National Backgrounds*). In detail, Star University emphasises curriculum and pedagogy, whereas Cross University's primary focus is on students, and Maple University's educational endeavour is heavily evidence-based and cultivates the community for various engagements.

Moreover, this chapter compares the perspectives and responses of academics from three universities regarding institutional strategies. I begin by analysing the awareness and attitude towards the university strategy. Overall, the majority of the staff at both Star University and Maple University were aware of their institutional strategies for diverse reasons. At Cross University, however, there

was no group consciousness; rather, each faculty member has unique opinions.

In addition, faculty members' attitudes towards institutional strategies were quite different. At Star University, some individual scholars had strong ideas opposing the university's strategy, despite the fact that disagreement at Star University was normally minor. The attitude at Cross University was polarised; some academics supported the value and increasing use of the institutional strategy while others considered that the formulation and implementation of strategies for the university are meaningless. Regarding Maple University, although some staff felt the institution still has flaws, the general sentiment was positive.

Regardless of the attitude towards the strategy, the majority of the interview participants admitted that the institutional strategy influences the teaching and learning of the undergraduates. To categorise the influential factors on how academics perceive the institutional strategy when it comes to undergraduate education, I categorised the findings into organisational dimension (referring to the operating environment) and individual dimension (referring to teaching philosophy). The operating environment consists of the external environment, which refers to the national context including cultural, political, and economic factors, and the internal environment, which refers to the organisational and managerial structure of universities.

As for the teaching philosophy, there are more commonalities amongst academics from diverse national backgrounds than differences. In general, academics emphasise the importance of teaching and consider undergraduate education to be more about 'student learning' than 'teaching'. One debate concerns whether teaching skill is innate or developed. Therefore, academics with opposing views have different opinions on the effect and impact of teacher

training and institutional support for education.

Following the findings on how the institutional strategy addresses undergraduate education and how strategic decisions are perceived by academics, the next chapter groups the findings and further discusses the empirical evidence through the framework of the community of practice (Lave and Wenger, 1991), which assumes the institutional strategy is cultivating a shared community for faculty members to interact, share, and learn from each other in terms of knowledge and experiences of undergraduate teaching.

Chapter 8 Community of Practice: Institutional Strategy and Undergraduate Teaching

In this chapter, I group the findings from case studies and then discuss the undergraduate teaching quality using the community of practice theory as an analytical framework. In *Chapter 3 Research Questions and Analytical Framework*, I explained why and how this theory is applied in the analytical framework. Wenger and Lave defined the initial concept, saying that learning is 'increasing participation in communities of practice' (Lave & Wenger, 1991, p. 49). Wenger's approach provided a framework where subtle and tacit types of knowledge can be cultivated, shared and sustained (Hildreth & Kimble, 2004). Tacit knowledge is considered highly personal. It includes skills, ideas and experiences that are possessed by people but are not easily verbalised (Chugh, 2015). It is the kind of knowledge that successful, experienced supervisors use in their everyday practice; however, it is hard to formalise and therefore difficult to communicate to others because it is unspoken. Against this backdrop, communities of practice provide an opportunity to share and articulate tacit knowledge. The community of practice approach of sharing practice and building domain knowledge creates an environment in which tacit knowledge can be made explicit (Wenger, 1999). Wenger built on this concept of community of practice by describing how social resources like experiences, stories, and tools, influence people's learning paths and professional identities.

In higher education, professional identity for academics is the academic identity, and it generally relates to teaching and research activities that are subject- or discipline-based (Deem, 2006, p. 204). Discipline-based cultures are the primary source of faculty members' identity and expertise. These cultures include assumptions about what is to be known and how tasks are performed, standards for effective performance, patterns of publication, professional interaction, and social and political status (Becher, 1989). Teaching identity,

however, is not a stable entity. It is an ongoing process of interpretation and reinterpretation of experiences (Kerby 1991; Day et al., 1999; Beijaard et al., 2004). Goodson and Cole (1994) argued that the broader institutional context played an important role in facilitating the realisation of teachers' personal and professional potential. To summarise, teaching identity can be described as values, beliefs, perceptions and experiences regarding teaching that academics hold.

A community of practice directs its members' attention through the ongoing negotiation of meaning that occurs within it (Wenger, 1999). In the higher education context, members can create such a community of practice to improve teaching quality by motivating the interactions and communications among members for this shared goal (Laksov et al., 2008; Patton & Parker, 2017). As a result, my primary argument is that enhancing undergraduate teaching quality is a shared mission for academic and professional staff at the research-intensive university, and this is the domain of the community of practice. Additionally, university staff, especially academics, learn from others' experiences and knowledge of teaching through practices in such a community of practice.

In this study, I investigated how communities of practice are utilised by world-class universities to enhance undergraduate teaching through institutional strategies in China, the UK and Canada. I first analysed strategic documents to present how universities implicitly and explicitly address communities of practice for undergraduate education and then analysed the interviews on how academic and professional staff interpret the strategic decisions in practice.

The chapter comprises the following sections: student-centred learning as the guiding value for improving undergraduate education, diversification and

enhancement of academic and professional positions as sub-communities for improving undergraduate teaching, practices for improving undergraduate teaching, including teacher training and collaboration, implications for teaching and research in world-class universities, and conclusion of this chapter.

8.1 Student-Centred Learning: The Guiding Value of Improving Undergraduate Teaching

In communities of practice, shared value is the key (Wenger et al., 2002). This section discusses how strategies seek to contribute to the idea of student-centred learning as an underlying value of undergraduate education. It is a direction that establishes and develops communities of practice for improving teaching practice, which is widely shared in all three universities from the fieldwork.

The quality of teaching garners considerable attention from researchers in higher education studies, university management and administration, and national and local governments. Teaching continues to be essential to higher education as a means of cultivating and preparing students for the labour market. Moreover, with the globalisation and internationalisation of higher education, students now have a broader range of choices of where to study. Therefore, universities compete with each other for students by emphasising education and student support.

One mainstream trend to improve teaching is transforming teacher-centred teaching to student-centred learning. This idea is commonly acknowledged as a favourable way to improve learning and link teaching and learning with modernisation and socioeconomic progress (Koedinger et al., 2012). Student-centred learning is not a new concept in higher education, which dates back to

Hayward (1905, in O'Sullivan, 2004) and Dewey (1956, in O'Sullivan, 2004). It is also associated with the study of O'Neill and McMahon (2005) that some researchers viewed student-centred learning as either the concept of the student's choice in their education or described as being about the student doing more than the lecturer (active versus passive learning). 'While other researchers have a much broader definition which includes both of these concepts but, in addition, describes the shift in the power relationship between the student and the teacher' (O'Neill and McMahon, 2005, p. 29).

The term *student-centred* is loosely applied and encompasses a range of approaches such as flexible learning, experiential learning, and self-directed learning (O'Neill & McMahon, 2005). In addition, the defining characteristic seems to contrast student-centredness with teacher-centredness (Rogers & Freiberg, 1994). In policy documents and quality assurance statements, student-centred learning is often viewed as a solution to a range of problems (Damşa and de Lange, 2019), for example, student engagement and student satisfaction. However, two factors have not yet attracted enough attention. First, the understanding of student-centred learning ignores the national settings and educational traditions of undergraduates. While this concept is widely recognised and used at universities, it can be interpreted differently in different nations and disciplines. In 1990, Bernstein (1990) argued that scant attention was paid to pedagogic discourse itself, which confirmed a seemingly blind spot in the literature on student-centred approaches. Instead, most empirical research has been focused on applying the pedagogical strategy of classroom activity or students' cognitive development. As Maton (2000a, 2000b) explained, the pedagogic discourse of each discipline or academic field has its intrinsic features. However, student-centred learning, in its singular focus on students' needs, fails to sufficiently consider what the discipline 'needs' or, more precisely, the discipline's knowledge and known structures and how are these legitimated

(Maton, 2000a). Second, while numerous studies have been conducted on how students and academics perceive student-centred learning, few have examined how these perceptions may influence teaching practice. In addition, empirical studies focusing on the influence of institutional strategy seem absent.

Therefore, this study focuses more on the strategic perspective to determine how the concept of student-centred learning is addressed via strategy and is applied in practice. Therefore, this section aims to present the research from Star University in China, Cross University in the UK, and Maple University in Canada to show how student-centredness is addressed at world-class universities in different contexts.

I begin by examining the strategic documents and then elucidating the subject using data gathered from academics, leadership, and administrative staff. I explore the perspectives of the institutional strategy's impact, the student's position as a customer or consumer, the use of student feedback and evaluation, the changing power dynamics between teachers and students, and the practical challenges associated with implementing student-centred learning.

8.1.1 The Institutional Strategy and Student-centred Learning

In this section, I briefly introduce how universities address student-centred learning from strategic documents and perceptions and reflections from the participants through interviews.

The strategic documents from all three universities placed students at the core of teaching practice. Universities are proactively providing support to improve students' learning experiences. In the strategic document, although the term, 'student-centred' is not written down, institutional strategies have a clear

intention of supporting students as the main object. In general, the strategy serves as a strong recommendation and sets the priority for academics. Additionally, based on the interviews, the intention of both paying more attention to students and enhancing student-centred learning becomes influential in the practice. For example, academics mostly felt that their preparation for courses is instructed by ‘what students want to learn’ (Professor Rodrigo – Cross University) than what they want to teach. Additionally, academics compromised more on the assessment results by ‘giving higher scores’ to students because that is ‘what they (students) care [aabout]’ (Professor Hoo – Star University).

The concept of ‘student-centred’ has its guiding value in higher education (Clewes, 2003; O’Neill & McMahon, 2005). However, the actual influence of the institutional strategy on enhancing student-centred learning is under-researched. On the one hand, there seems no research that has yet sought the influence of the institutional strategy on student-centred learning with the deconstruction of the practical meaning in the real context. On the other hand, current research focuses exclusively on classroom practices dis-embedded from the institutional context. Therefore, the theories and empirical studies that can be referred to are very limited and not well-contextualised for higher education.

Then, the first question to ask is: why enhance student-centeredness? The following section explains the possible reasons for the institution’s strengthening of student-centred learning that emerged from the fieldwork. For one, more studies are now applied to the higher education field with a more scientific approach or following evidence-based principles. In other words, the importance of studying higher education itself is becoming more crucial and student-centred learning is considered by universities as a strategy for achieving the desired educational outcomes. As mentioned by respondents in

the two western universities, another reason is the rising student fees in some universities that drives the university to place more priority on student learning, as mentioned by respondents in the two Western universities.

- **Scholarship of Teaching and Learning**

The first reason that institutions feel compelled to pay close attention to student learning arises from the perspective that teaching in higher education is largely considered a profession that academics must pursue in addition to disciplinary knowledge. In other words, the idea of scholarship of teaching and learning (SoTL) is increasingly recognised in academia. Fanghanel et al (2016) discussed using SoTL to identify teaching excellence and engagement as a means of professional development. SoTL primarily comprises practice and curriculum enhancement, and it emphasises the students' role in contributing to learning development. Whereas there emerges a trend of 'new SoTL', which seeks to focus on more institutional strategy and national policy foci to harness SoTL and develop competence and excellence frameworks than individual practices (Fanghanel et al., 2016, p. 5).

SoTL can be analysed at individual and interpersonal, as well as institutional (classroom, study programme, entire higher education institutions or their subunits) and systemic (national higher education systems or international and comparative approaches) levels. SoTL has been commonly viewed as pedagogic research: at the core of SoTL is a perspective that teachers design lessons for active and deep learning, and the students embrace autonomy and responsibility for learning (O'Neill & McMahon, 2005; Arman, 2018). This particular view is popular with institutional management, who use it as promotion criteria for teaching capabilities as a substitute for focusing on disciplinary research achievements.

In higher education, SoTL is sometimes problematised because of conceptual misassumptions, teachers' pedagogical preferences, and the practical feasibility of transitioning to a SoTL environment (Tierney, 2016). Some academics have questioned whether this pedagogical practice truly enhances students' involvement in education, given that it assumes learners are motivated and engaged (Harju & Åkerblom, 2017). In addition, although empirical studies have proven that both students and teachers talk about the positive benefits of SoTL, academics have sought a balance between teacher-directed and student-centred approaches because students feel anxious about pedagogical approaches that lack structure and support (Trinidad, 2020). Additionally, resources may be unavailable for SoTL's effective implementation (Lea et al., 2003).

From the perspective of instructing teaching, SoTL uses evidence-based approaches. Such evidence is collected from the practice or reflections on the practice. Another characteristic of SoTL is that it transforms educational development from institutional-based (Gosling, 1996; Knapper, 1997) to discipline- or department-based (Healey, 1998, 2000; Jenkins, Healey & Zetter, 2008). This trend is also further confirmed by the fieldwork.

All three universities in this study mentioned SoTL in their strategic documents. Although the wording and phrasing differed, the core concept is to improve teaching in a way that could be referred to and evaluated with increasing participation of students during the education process. However, the strategic documents lacked a clear definition or detailed description of SoTL, which is more likely a visionary idea instead of an instructive guide. The only related content includes evidence-based teaching and student engagement. Therefore, unsurprisingly, university faculties might perceive this concept differently.

In practice, widely recognised SoTL as the direction that they were or would be implementing in their practice. However, not all academics were clear about what this concept meant for their teaching. Interpretation was varied from the broad perspective of ‘doing any sort of scholarly research on teaching and learning in general’ (Dr Dearo – Maple University) to ‘the way of teaching that improves student engagement’ (Dr Somerster – Maple University).

Additionally, disciplinary characteristics need to be considered in SoTL. For example,

> … [there’re] discipline-specific nuances in that as well. So I guess there’s a sort of general educational framework we can use by referring to the scholarship of teaching and learning. But each discipline also has its own cultures and norms (Dr Legrass – Maple University).

In practice, the concept of SoTL is usually not further elaborated from a discipline’s level.

In summary, the application of student-centred learning in higher education varies because institutions lack a clear interpretation of SoTL and academics’ understanding is vague. Thus, it appears that space is available to further elevate the overall recognition of student-centred learning with a theoretical underpinning of SoTL; however, institutions have not yet accomplished this.

- **Rising Tuition Fees**

Apart from the wide recognition of SoTL in academia, findings from Cross University and Maple University offer another reason behind the enhanced idea of student-centred learning: rising tuition fees. Such fees have driven universities to focus their awareness on student needs. As one participant

expressed, ‘you can’t get away from the influence of needing the students, needing the money that the students bring in’ (Dr Menet – Maple University).

According to the interviewees, tuition fee was a frequently mentioned issue, but references to that in the strategic documents were absent. Typically, academics believed positing students as the centre of teaching is reasonable because students are paying for it. From the perspective of sustaining a functioning university, one participant explained,

> So in terms of financial support for us, public universities, I think a lot of the universities’ income comes from student tuition. So students are very important to us in that sense. And then, in a way, our teaching is supporting the university’s finances (Dr Weien – Maple University).

For students, ‘it’s really expensive whether you’re a home student or an overseas student. If you are charging people thousands and thousands of pounds to come here to learn, then you need to give them something decent in return for that’ (Dr Kenna – Cross University). The emphasis on recognising the implications of growing student fees can increase the understanding of the situation. ‘Since the government doesn’t give public money to the university, the university has to raise money by charging fees, so they have to please the students in order to keep them happy and be willing to pay fees’ (Dr Risso – Cross University).

Some academics exhibited a sense of restraint and frustration regarding comfort with their teaching when discussing making students happy or keeping them satisfied. The philosophy behind this not only applies to students paying more and the university’s wish to retain them by being more attentive to their learning but also shifts the traditional roles of students and teachers. With tuition fees involved, academics now feel that education is more likely to become a

certain type of service with students as the customers or consumers. This idea is further explained in the following section.

8.1.2 Student as ‘Customer’ or ‘Consumer’

The previous section mentioned that one key influence behind a student-centred approach to teaching and learning is rising tuition fees in the UK. This influence also corresponds with the concept of ‘student as customer’ (Dearing Report, 1997) or ‘student as consumer’ (Consumer Rights Act, 2015). In Cross University’s strategic document, the student is referred to as a ‘sophisticated consumer’, which lays the foundation of how the university views students and the corresponding attitudes and expectations it adopts.

In practice, academics from all three universities widely recognised this idea. However, academics voiced less approbation of such a concept but acknowledged its presence. ‘Instead of having a mentoring-mentee relationship with students, what we have is a transactional relationship of client, [and] provider. It is upset[ting]’ (Professor Rodrigo – Cross University). ‘I don’t like the model of [students] being a customer, but I think one has to realise that they are paying for the education’ (Professor Mengty – Maple University).

Academics, in general, did not see the difference between ‘customer’ and ‘consumer’ and used these terms interchangeably without much explanation. ‘Students are consumers, or they say it’s customers. I don’t really know the difference’ (Dr Kang – Star University). Another interviewee explained it does not ‘make much difference in teaching and learning to differentiate these two concepts’ (Professor Young – Star University). Some academics chose the term ‘customer’ instead of ‘consumer’ and considered themselves the ‘service-provider’ (Professor Rodrigo – Cross University). This perspective generates

an attitude about the tuition fee that ‘education is not an object on the self’ (Professor Rodrigo – Cross University) but maintains the assumption of the importance of students’ satisfaction.

Under the assumption of the student as a consumer (or customer), students hold higher expectations for their academic achievement. These expectations have influenced how universities issue degree certifications, in other words, the increasing proportion of ‘first degrees’.

> They [students] are now more like customers, and we have more than 80% with first 2-1, first honour or two to one honour. It’s the degree inflation. You read all this education news, see people complain that [the] employer thinks the first class honour [of] the students are not really first class (Dr Vinnty – Cross University).

This issue not only implies the possible decrease in education standards at Cross University but may influence the value and competitiveness of degree certificates for the job market.

This notion is further strengthened by the institutional strategy by explicitly using these terms in the strategic document. For example, in Cross University’s education strategy, although higher education is ‘not a conventional commodity, students commit more than time and effort in a programme, and they are sophisticated consumers who want to feel that they are being rewarded for their financial and personal investment’.

This trend is closely related to the fact that universities now highly rely on the student’s tuition as a large amount of revenue to keep the university running. However, would it be appropriate that the university deliberately strengthen this concept? Students are encouraged to see universities in a certain way and shape them in that image from within. It appears that there is a paradox here,

in that neoliberal discourses focus on the financial value of a degree and, importantly, place the onus on individuals to actively make themselves employable (Walkerdine & Bansel, 2010), but at the same time, this may be leading to a fall in engagement with the means of achieving those ends. In other words, choices are being actively made for instrumental gains, but some of those gains may be diluted if students do not seek to develop in the process.

Although academics would mostly more or less be interested in their students' satisfaction, ‘satisfaction’ becomes a key indicator in the higher education systems. This factor leads to the increasing need to know students’ satisfaction of teaching and learning. The discussion of student feedback and evaluation as the main approach for them to share their voice is mostly discussed.

8.1.3 Student Voice: Feedback and Evaluation

Based on the interviews, one approach to enhancing student-centred learning and engaging students in the educational process is to have student voice through receiving feedback and evaluation on teaching from them.

The two most commonly cited purposes of student-voice projects in higher education are quality enhancement and assurance (see, e.g. Shah & Nair, 2006; Williams & Cappuccino-Ansfield, 2007) and staff or professional development (see, e.g. Dinsdale, 2002; Campbell, 2011; Hall, 2017). These two broad purposes of students’ voice in higher education tend to align with higher education policy or practice agendas such as feedback and evaluation (see, e.g. Symons, 2006; Briscoe et al., 2008).

The student’s voice was mentioned in the strategy documents that ‘students’ opinions are important for teaching and learning’ (University strategy from Star

University). Students can communicate their views to people who are in the position to influence change, and treat students as equal partners in teaching and learning evaluation by empowering them to take more active roles in shaping their education (Faux et al., 2006; Walker & Logan, 2008).

The feedback and evaluation systems consist of listening to and valuing the views that students express regarding their learning experiences. In this study, I differentiate feedback and evaluation by considering feedback as comments or communication made directly to academics, while evaluation as systematic reports of students' experiences with courses from the national and the institutional levels.

- **Student's Feedback**

In general, academics welcomed students' feedback – especially younger lecturers at the early stages of their academic careers, who found feedback 'very helpful in the process of establishing myself as a lecturer' (Dr Derya – Cross University). 'I found that they are useful and effective. At least for the first five years when I am relatively new at teaching, I really value feedback' (Dr Weien – Maple University). 'This kind of feedback is more informative and useful when you're younger and less experienced as a teacher. But after you have taught for this many years, you see the same kind of pattern' (Professor Hing – Star University).

New academics expressed they were 'overly concerned about the evaluation at the very first year I was teaching' (Dr Ronaldy – Maple University). However, with the time spent and experience accumulated, 'you get[ting] to know what to do in order to get good evaluations, meaning you know more of what the students are looking for' (Professor Othnirity – Maple University). 'I've learned

over the years that you can't overreact to students' feedback' (Dr Edsan – Maple University). In other words, teaching is an ongoing process, and with the time spent and experience accumulated, academics usually identify a pattern from students indicating their expectations of the teaching.

- **Student's Evaluation**

Student evaluations allow a systematic approach to collecting feedback on the national and institutional levels. Star University and Maple University did not offer much information regarding the national level of systematic evaluation. Cross University mentioned the National Student Survey (NSS) several times in both the institutional strategy and education strategy documents to improve students' satisfaction. Academics held a less supportive attitude towards NSS in terms of improving teaching. On the one hand, the quantitative survey provided very limited guidance on what aspects could be improved or how to improve. On the other hand, the terms 'interesting' and 'satisfaction' from the NSS further generated a gap in understanding between academics and students in how teaching should be performed. Thus, the question remains whether meeting students' interests and gaining their satisfaction can be considered good teaching and how much these aspects should be valued.

At the institutional and course level, students usually submit evaluations at the end of their course/module. The format primarily encompasses surveys and descriptive comments. In practice, the descriptive feedback can be 'very important' (Dr Nadonnay – Cross University), while 'the quantitative ones are usually not useful [because] it doesn't tell you the problem' (Professor Yemek – Maple University). Meanwhile, a phenomenon has been emerging with universities creating more evaluations during the education process. 'Students get fatigued with too many surveys' and 'communicating the importance to

students of these things is very challenging. Sometimes the response rates can be considerably low' (Dr Donalt – Cross University).

Some researchers argued that teaching quality should be measured by learning outcomes (see, e.g. Brew & Boud, 1995; Elton, 2001). However, in practice, measuring learning outcomes according to the instruction that students receive proves challenging. As a result, higher education institutions are limited to relying on evaluation systems.

Evaluation is oversimplified as the recognition of effective or poor teaching. Academics have generated critiques from three perspectives: theoretical, psychometric and methodological. Theoretically, little agreement has emerged regarding the nature and number of dimensions that represent teaching (see, e.g. Swartz et al., 1990; Patrick & Smart, 1998). Therefore, defining 'what should be evaluated' is difficult (Professor Hing – Star University). In terms of the evaluation instruments' psychometric properties, the primary issue of concern is validity: too many variables influence how students feel about teaching, which cannot be determined via evaluations. Methodologically, one common critique of the evaluation is that 'there are lots of debate over the effectiveness of those surveys with a set of standardised questions and calculated as scores for students to evaluate teaching' (Dr Weien – Maple University).

The student's evaluation is applied because 'it is an essential tool in the absence of more appropriate tools for understanding how teaching is going on' (Professor Torb – Maple University). Although all participants recognised the importance of communicating with and receiving opinions from students, academics did not primarily recognise standardised evaluations. In other words, the overall recognition from academics was not as high as intended. 'I cannot

comment on this because I don't know the details' (Dr Hernandez – Cross University). 'Maybe it is useful, but I don't have time to read' (Dr Whei – Star University). 'I heard my evaluation is good. Even [if] it is not, I don't care' (Professor Wei – Star University). 'They don't really impact me at all. I don't really follow them' (Professor Sobbin – Cross University).

Overall, evaluations, as one of the important vehicles for students to express their feelings and comments about teaching and learning, have not attracted the anticipated attention from academics. Although some academics believed a student's evaluation might influence their 'passion for teaching' (Professor Young – Star University) and that it 'gives new perspectives on improving teaching' (Professor Hon – Star University), academics mostly held the idea that a student's evaluation had a very limited influence on their teaching.

Whether on a national or institutional level, academics primarily found that student evaluations could be limited and biased. 'Student[s] can be biased, and there is not much statistical value of the evaluation' (Professor Shang – Star University). Additionally, the evaluation 'amplifies negativity'. For instance, 'a negative student will write a page; a positive student write[s] two sentences' (Professor Sliderin – Cross University). This perception generates a certain level of tension between academics and students when it comes to teaching practice' (Professor Sliderin – Cross University).

Furthermore, numerous extraneous variables have been examined that may confound students' evaluation of teaching, including the course, student characteristics, lecturer behaviours and course administration (d'Apollonia & Abrami, 1997; Wachtel, 1998). This study generated more variables from the fieldwork, providing new perspectives on the study of student evaluations relative to teaching and teaching quality. One academic staff from Maple

University explained that

> Student evaluations are very imprecise of good teaching. [One example is that] we have the same instructor, teaching the same material at two times, one time in the morning at 10:00, and the other time in the afternoon at 14:00. They can get very different evaluations. Partly because the students who take the class at 10:00 or 14:00, they are a different mixture. Some are the top students [who] tend to go in the morning. And then, the students were not so interested all bunched together in later [classes]. It quite often happens (Professor Othnirity – Maple University).

This variable has not been studied via well-designed research but through academics' reflections. However, it strongly implies that student evaluations constitute influential factors not yet detected.

Furthermore, bias seemed evident on both a personal and a collective level. According to Maple University's previous department head, 'sometimes students take it personally and give the harsh evaluation with bad [scores]' (Professor Franciso – Maple University). Additionally, 'those particular surveys can be very biased in terms [of certain] things like women will have different feedback than men, people of colour or different ethnicity will also have different feedback; culture impacts these biases' (Professor Tesfay – Maple University).

Academics also seemed to lack trust in students' starting points of giving feedback. Academics felt that feedback might not address teaching and learning quality but instead reflects an appreciation for those instructors who assign less work and studying. In other words, 'students sometimes like professors for the wrong reasons: that you're funny and entertaining, but you really didn't teach much' (Professor Franciso – Maple University).

> The teacher tells jokes in class, and then everyone gives a high score.

> Does it mean that the teaching quality is high? If you are very strict in class and add all the knowledge points, the curriculum is difficult to set up, and the requirements for students are very high. Then the students' evaluation is not good. Does it mean that you are not good at teaching (Professor Kim – Star University)?

This idea was further confirmed by academics who felt frustrated that 'now I'm teaching more conscientiously with more effort, but students are less happy with me. So they give me worse evaluations than when I was more focused on maybe keeping them happy' (Professor Torb – Maple University). 'I would say I am now a much better teacher than I was when I started. But my teaching evaluations [have] decreased' (Dr Beope – Maple University). A certain degree of misunderstanding or a gap about what constitutes good teaching or a good teacher seemed evident when academics and students perceived the evaluations. Two examples illustrate such a gap:

> A younger colleague was being promoted, and there's a huge amount of critique from students being made out of his teaching evaluation in one course. And then I was asked to actually attend one class of his course, and he taught very well (Professor Torb – Maple University).

As for the perception of what makes a good teacher, a vague line separates the makings of a popular and effective teacher from the student's perspective: 'I think not all good teachers are popular. Myself, I had some teachers who were very unpopular, but with time spent, you realised that they actually gave you a lot' (Professor Othnirity – Maple University).

Academics struggled to place value on students' evaluations. Although academics more or less found student evaluations did not have the value they were intended to have, it did influence how academics thought about the

teaching practice. ‘I think there is a [feeling of] sympathy towards the pedagogical independence of academics. But I think ultimately, [NSS] scores are decisive’ (Professor Sliderin – Cross University). With the increasing spread of the utilisation of student evaluations, academics also felt ‘forced to fulfil students’ requirements’ (Professor Kang – Star University). Sometimes, ‘they just want us to lower the standard of learning’ (Professor Mon – Star University). The university also encourages this expectation by weighing students’ opinions more than academics’ feedback. Academics asserted that ‘the university should think more from academics’ perspective[s] in terms of teaching practice by trusting their academic capability and experience than overvaluing [the] student’s opinion’ (Professor Young – Star University).

Some studies found that student ratings are somewhat higher if the stated purpose is for promotion and tenure (Feldman, 1979; Aleamoni & Hexner, 1980). However, Frankhouser (1984) concluded that the stated purpose of the evaluation had no significant effect on ratings. In fact,

> For someone who is an untenured faculty, negative [evaluation] can be fatal. As one gets to the point of being tenured, that impact is perhaps not fatal to one’s career but still has significant influence. (Dr Shishu – Maple University).

Moreover, students’ attitudes toward teaching and learning can change over time. ‘They [students] do not always realise or recognise the good teaching right after the course but after they graduate and start to work. Because they will see [how] their knowledge is applied into practice’ (Professor Wei – Star University). However, there seems no longitudinal system for monitoring students’ evaluation after their graduation. In addition, the result of the evaluation usually reflects on academics’ work or promotion within a short time.

Additionally, the evaluation is usually anonymised to encourage students' honesty and protect their identity. However, sometimes, academics have found it challenging to match the feedback to the situation. Although not a common occurrence, 'students can be a bit more dramatic when they cannot be identified' (Professor Othnirity – Maple University). Therefore, the evaluation could be more accurate if the students were identified. However, not all surveys and evaluations should lack anonymity; instead, both types of surveys could be combined as an additional reference.

Therefore, a certain level of tension has emerged between academics and students regarding student evaluations. On the one hand, the nature of these evaluations is not conducive to comprehensively or accurately providing a picture of how teaching is delivered to students. Moreover, another key question is what academics look for in student evaluations: 'likability of my [course] or [student's] enthusiasm in learning' (Dr Nadonnay – Cross University) and how it relates to the design of teaching. On the other hand, the evaluation's level of importance was unclear when applied to teaching and academics' career development.

The evaluation might not influence the teaching quality, but it certainly affects the relationship between academics and students. 'Healthy and appropriate relationship[s] between the academics and students can definitely benefit the teaching practice' (Professor Mon – Star University). However, student evaluations appear to have had the opposite influence.

To nurture a more positive and communicative relationship with students, one academic explained that he must 'make sure that expectations on both sides of what they can expect from me and what I expect from them are very clear from the get go' (Dr Ronaldy – Maple University). However, in this study, evaluation

was more likely to be the approach of enhancing student-centred teaching from a strategic perspective, and, therefore, it influenced the misalignment between academics' and students' understanding surrounding undergraduate teaching.

Nowadays, apart from the traditional or commonly used feedback or evaluation methods, academics have adopted their own approaches to gathering students' opinions.

> The other method that I've used for gathering student feedback was 'stop/start/continue'. So just [at the] end of class, a piece of paper, students tell me one thing they wish I would stop doing, tell me one thing they wish I would start doing and tell me one thing that they wish I would continue doing or do more of. I did that in a smaller class, and that also gave me some good feedback on how to improve the course. (Dr Weien – Maple University)

To summarise, there has been considerable focus on strengthening the student voice in university governance in the last decade (Shenstone, 2019). The conversation between academics and students is a key aspect of smooth delivery in education. The promotion of students' voices, on the one hand, has given students more opportunities to share their feelings and demands for the educational experience. On the other hand, the student's voice has changed the relationship between teachers and students because of the different expectations regarding the importance of feedback and evaluation in teaching practice. The main disagreements are over whether student choice should drive the shape of teaching and learning (Ashwin et al., 2015). The next section further explains this transition of power or authority and reflections on teaching.

8.1.4 Relationship and Power Dynamics Between Academics and Students

- **Relationship Between Academics and Students**

In the previous section, I addressed theoretical and empirical evidence of how universities promote student-centred learning primarily through considering students as customers or consumers and elevating the student's voice through feedback and evaluation. These findings reflect the recognition that power inhabits all processes of social communication and that different social groups have differential access to and, in some cases, privileged access to forms of communicative and institutional power. In the following paragraphs, I present how to understand the power relations between academics and students in the context of institutional strategies that strengthen the overarching concepts of student-centredness in teaching. To begin with, I present the understanding of the relationship between teachers and students in higher education. Then I explain how the power is understood and transited between academics and students.

Much of the literature focused on teacher-student (or faculty-student) interactions are not describing the quality of such interactions. In several studies, the frequency of interactions was the main focus of investigation (Lamport, 1993). In addition, the relationship between teachers and students can be nationally different. In Asia, students' cultural expectations of teachers as experts and submission to elders are of paramount importance (Yasmin et al., 2019). Hsieh (2012) demonstrated that the Chinese aphorism, 'honour the teacher and respect his/her teaching' (*zūn shī zhòng dào* *尊师重道*), reflects traditional cultural values and expectations about students' attitudes towards teachers. Within the hierarchical teacher-student relationship (*shàng zūn xià bēi* *上尊下卑*), teachers are superiors due to their high status and honour,

whereas students are subordinates, expected to be humble and obedient.

In examining the literature on the teacher-student relationship in higher education, two main dimensions can be differentiated (Hagenauer & Volet, 2014), the affective dimension describes the bond built between students and teachers, forming the basis for secure, effective and positively experienced relationships; the support dimension describes the support that must be provided through the teacher-student relationship for students' success at university (e.g. teachers setting clear expectations, answering emails promptly). These two dimensions broadly categorise and structure what students may expect from academics. In practice, these two dimensions can be interpreted from academics' role in the teaching and learning process.

Academics' roles mainly include that of researcher, teacher and leader or administrator. Among these roles, the role of a teacher is most closely related to students. In more detail, academics used words like 'facilitator', 'guide' and 'coach' to describe their roles: 'I am not there as an authority figure. I'm there as a facilitator. I am there to guide them towards learning' (Dr Norman – Cross University). Professor Francisco elaborated:

> I always feel as a teacher is more of a coach. It's really enabling the students to learn… our role is to create materials presented and make sure [to] filter through all the information and present as much as possible a coherent message. But the students have to work with it, and they have to process it, and they have to learn it. (Professor Franciso – Maple University)

However, one question arose. How close should academics be with students outside of the classroom? This query led to two sub-questions: one addresses student career development, which is not entirely an academic perspective but

is still linked to their studies. Usually, academics would like to converse with students about this type of topic. The other refers to students' personal lives and their personal relationships with academics. This issue was interpreted very differently by each individual because there is no standard from institutional strategies. Various examples are given as follows.

> I'm not their best friend. I'm not like that 'yo, let's hang out in the student quad' type of professor. Although [with] some distance, they can come and ask me questions about long-term career plans and what my thoughts are [and] that they're comfortable with that. I guess actually I would say that applies … [to] professional [aspects]. Good teaching is developing that professional but [not] personal connection with students (Dr Ronaldy – Maple University).

Professor Vieira explained the following:

> I used to drink beer with my students. Now you are not allowed to socialise with the students anymore because the university tries to fire me [because of this] (Professor Vieira – Maple University).

Professor Mon shared the following experience:

> What surprise[d] me is that student[s] sometimes told me something sensitive, including personal privacy. For example, if he fails the exam, he will email you that he is not ready because of a broken relationship. The information is pretty [private] (Professor Mon – Star University).

According to academics, developing a clearer sense of how close they should be with students and how much non-pedagogical support they should provide has proven challenging. Academics could be unhappy with both scenarios in which relationships are either too close or too distant when the institution or department lacks guidance. Certainly, the choice is personal, but the

misalignment arises from mismatching expectations, which then become disappointments for academics with their departments or other levels of management leadership.

In summary, the teacher-student relationship at a university is characterised as an adult-adult relationship (Halx, 2010). The differing expectations for this adult–adult relationship mainly depend on the degree of expected dependency or independence. The dependency of younger learners on their teachers is much higher in schools than in universities, an accepted feature of the relationship, fostering teachers' urges to 'care for' or 'take care of' the still dependent learner. In the university context, independent (adult-like) behaviour is expected from students (e.g. self-organisation, independent studying). This expectation raises various questions: given the assumption of independence, do university teachers have an obligation to display caring behaviour? If so, how is 'care' defined in this adult–adult teaching and learning context?

- **Power Dynamics Between Academics and Students**

The power transition when deciding teaching practices has evolved in higher education: students are now empowered that they have more influence on bargaining how teaching and learning should be conducted. The view of students as consumers empowered students to demand higher quality services that they were now paying for, was coupled with the sense that institutions wanted to keep their customers happy and so wanted to be seen to be responsive to their demands (Appleton & Abernethy, 2013; Bols, 2022).

However, not all academics are comfortable or have already adjusted to the transition. Some academics (from all three universities) felt the transition was passive, and not all believed that teaching was going in the right direction.

When the institutional strategy further strengthens student empowerment through, for example, having more evaluations from students and emphasising the result of student evaluation by reviewing, and discussing how teaching can be done from students' opinions, academics may feel that the university trusts and supports the students more than academics in terms of the teaching practice, while academics consider themselves are more of the 'authority'.

In the following sections, I shift the emphasis from relationships to empowerment to further explain how institutional strategy impacts the teaching practice. Power can be defined in a variety of ways. Parsons, a functionalist, defined power as 'generalised capacity' (1963, p. 237), whereas Weber, using the conflict theory, defined it as the probability that an actor will 'carry out his [or her] own will despite resistance' (1978, p. 53). The former highlighted the legitimacy of exercising power that is based on one's hierarchical role, position and authority (power-to). The latter conceptualised power in terms of conflict and resistance (power-over). In contrast, Foucault, from an interpretive theory standpoint, suggested viewing power relationships (including those between teachers and students) in terms of micro-level human relations and argued that power 'only exists in action' (1980, p. 89). Foucault further emphasised that 'there are no relations of power without resistances' (1980, p. 142). When power is perceived as legitimate, it can be seen as an authority. Weber (1978, p. 212) distinguished between power and domination, noting that domination 'does not include every mode of exercising "power"'. He outlined three types of authority (legal, traditional and charismatic), each with varying degrees of legitimacy (1978, p. 215). Bernstein (2000, p. 19) emphasised the differences between power and control, noting that 'power establishes legitimate relations of order' but that control 'establishes legitimate forms of communication'.

Empirically, power affects relations between categories of groups/agents, but

control socialises people within given forms of interaction. Thus, power can be seen as more than authority, domination or control and may exercise within micro-level human relationships or at a macro level. Foucault's concept of power has been widely adopted to analyse micro-level power relations between or among students, teachers and school social workers (Liang, 1999; To, 2006).

In a more practical way for analysis, Freire argued that his analysis of power is based on binary oppositions: either a person has power or does not. However, under the influence of postmodernism, power has become recognised for its diversity, subtlety and complexity, for having rhizomatic and horizontal as well as vertical dimensions, not as a 'thing' to be possessed or given away but as a mode or relation that inhabits all social processes, and, importantly, not of itself a negative force. For this reason, Lankshear (cited in Bland and Atweh, 2004, p. 8) preferred to use the phrase 'coming to power' rather than 'empowerment' to discuss a 'process of participation and mastery of other discourses including the ability to criticize these discourses' (Robinson and Taylor, 2007).

Hampton and Blythman (2006) were almost unique in their attempt to link their student-voice work to Freire's ideas and conceptualisations of power and oppression. They argued that 'it is important to give voice to the experience of the least powerful' (2006, p. 1). Hampton and Blythman made their comments in the context of widening participation, academic failure, retention and student support mechanisms. Their links to Freire's (1990) notion of oppressing students at risk of being excluded from educational opportunities appear both obvious and meaningful.

In this research, interviews with some academics suggest that students were apparently 'coming to power' in teaching and learning because the institutional strategies enhance student-centred approaches and they were adopted by

academics. This idea is established to provide better education to students, but in reality, a gap arises between what students think they can do and what academics think should be done to improve teaching.

From the academics' perspective, they are more qualified to determine what should be taught to achieve the academic goal, because the nature of education is that teachers have more knowledge of the discipline. However, 'students now think that they can tell me what's good for them without recognising that the reason why they came here is so that I can set the bar [make criteria for studying and learning outcomes]' (Professor Rodrigo – Cross University).

These misaligned expectations have led to the misunderstanding of how teaching and learning should unfold between academics' perspectives and students' perspectives. As I addressed in the previous section, one issue is how decisive the student's opinions are in teaching. Academics nowadays feel that students are overly empowered in deciding teaching content and examination procedures. 'The concept of student-centred is widely accepted, but it can be problematic if we think we should do everything for the students. Students now have too much power in deciding what to teach and how to teach' (Professor Young – Star University). Regarding teaching content, academics believed that students tended to want less difficult material and wished the courses could be easier and more interesting.

> They say, oh, this is so difficult… Or they always say it is boring. But here in the [classroom], I'm not an entertainer. [As] a lecturer, I tell you what you [students]need to learn, and you [students] go over and learn it. I'm not here to make it entertaining. So I think something is not quite right (Dr Vinnty – Cross University).

Moreover, students focused overwhelmingly on examination grading and marking. ‘Many students these days simply hope that the test can be easy to pass’ (Professor Mon – Star University). ‘Unlike the traditional relationship between teacher and student, I think students now have more power in bargaining with teachers on how to teach and how to test, especially the way of giving scores’ (Mr Zi – Star University).

The struggle that emerged from the transition of power includes whether academics trust students’ study habits and approaches. According to participant responses, some academics considered undergraduates as ‘big kids’ or ‘not mature’, so ‘they are sometimes lazy in studying’ (Professor Torb – Maple University). Moreover, academics also lacked confidence in undergraduate students’ academic capabilities and experiences in the discipline or programme they are teaching. In other words, although academics thought students sometimes had very good insights or questions that inspired academics to further think and do the research, in most cases, ‘what students wanted for their study, from a knowledge perspective, might neither fit how the discipline is structured nor the job market’s criteria’ (Dr Kang – Star University). In other words, empowering students in teaching and learning so that they can obtain what they want does not mean that students are better equipped with knowledge and skills.

From an institutional perspective, academics felt that ‘students were getting more support than I was, so that was a little bit frustrating. After I spoke with others in the department, I think others share my feelings’ (Dr Menet – Maple University). The academics expressed their dissatisfaction with the current situation and that university is neglecting academics’ authority in teaching and learning but taking students more important. Thus, this transition sometimes frustrated them.

To summarise, enhancing student-centred learning and emphasising the student's voice from the institutional perspective were intended to improve undergraduate teaching. However, based on the interpretation of strategic documents and the fieldwork gathering academics' perceptions, the ideas surrounding the meaning of student-centredness have grown misaligned with the purpose of providing quality education, and the transition of power in teaching has led to different expectations from academics and students in education practice. In this case, the key is to set clear boundaries distinguishing teachers' authority and students' power in teaching; moreover, better communication with all the stakeholders is essential.

8.1.5 Practical Issues of Adopting Student-Centred Learning: Massification and Change of Generations of Students

Apart from the change in the relationship and power dynamics between academics and students that are exacerbated by vague and oversimplified instructions around institutional strategy, there are also practical barriers that hinder student-centred learning from being well implemented.

The first issue is the massive expansion of the number of students, which is happening in all three universities. Professor Young (Star University) argued that 'it is too difficult to give enough attention to individual students because of the large student body, and this seems to be the opposite of the concept of "student-centred"'.

Moreover, according to the responses from academics, especially the ones who have more than 20 years of teaching experience, 'there is a prevailing opinion that students are getting worse. So over the decades, over the years, if you

discuss with colleagues, there's a widespread impression that the quality [of students is decreasing]' (Professor Torb – Maple University). Such a decrease in quality is considered to be related to the 'expansion and massification' (Professor Lio – Star University).

More specifically, the quality among students is polarised. 'There are very good students who not only have great academic capabilities but also very motivated and diligent' (Professor Kang – Star University). However, there also exists a large proportion of students that 'have relatively lower learning skills or very low expectation and demand of learning. They are mostly hard to motivate' (Dr Lou – Star University). Moreover, students are more self-conscious and individualistic, and there is 'an increasing number of international student' (Dr Lach – Cross University). This belief in the phenomenon of dropping and polarised quality of students leads to the question of whether the standard of teaching should be altered to fit more students or the standard should be kept the same knowing that more students would struggle and possibly feel that professors, departments, or the university 'don't 'listen to them' (Professor Mon – Star University).

Furthermore, although massification and preferential policies[27] give more opportunities to students from disadvantaged backgrounds – 'for example, rural area[s]' (Dr Yamin – Star University) – the gap between students' academic abilities is because 'their access to the information and knowledge before going to the university is still very different' (Professor Mon – Star University). 'For the disciplines like engineering, it creates a huge gap among students in terms of the basic understanding of the tools and material for the study' (Professor Kang

[27]Since the 1950s, China has implemented a policy of awarding extra points in the college entrance examination. It actively fulfils the social responsibility to promote fair access and further increase the admission rate in the central and western regions (usually considered as remote and less developed regions in China) (Ministry of Education of People's Republic of China, 2018) http://www.moe.gov.cn/srcsite/A15/moe_776/s3258/201803/t20180320_330717.html

– Star University). In other words, although students are in the same programme, their initial studying abilities can be different. The good news is, according to Dr Nadonnay (Cross University) and Professor Torb (Maple University), the difference among students in terms of academic basics and ability is getting smaller after a certain time of study, especially ‘after the first two years [of undergraduate education]’ (Dr Nadonnay – Cross University).

In addition, students are different from one generation to another. In particular, the levels of self-consciousness and individualism among students have been increasing every decade.

> Students from the 1970s and the 1980s are relatively obedient. They are more willing to learn, and they may be willing to communicate more with teachers. Students from the 1990s are more of their own personalities and usually make their own decisions(Professor Mon – Star University).

This change in the mindset of students becoming more individualised not only emerged in the Chinese context but was also evident at Star University and Maple University.

Furthermore, young undergraduate students have different lifestyles from academics who are mostly over 40 years old. Therefore, academics have ‘been trying to stay abreast of changes and student’s needs, and particularly [for] young students [who] are addicted to smartphones and computers, [we are] trying to modify our teaching style to suit the students’ lifestyle’ (Professor Lloyd – Maple University).

The last issue is the increasing number of international students. Star University has recruited more international students than in the past because of the strategic decision on promoting internationalisation. However, academics felt that ‘the quality of international students we recruited is not good’ (Professor

Mon – Star University). This situation relates to the developing status of higher education in China, which is not ‘the first choice for most of the international students’ (Professor Mon – Star University). Therefore, academics felt the quality of international students is lower than the local students, which makes the teaching practice more difficult.

Cross University and Star University have a longer history of having a large proportion of international students. Even though they are more experienced in supporting students who come from different cultures, academics still found ‘the classroom [teaching is] more challenging’ (Dr Kenna – Cross University).

8.2 ‘Financial Resources for Research While Human Resources for Teaching’ (Dr Tinasol – Maple University) – Sub-communities of University Staff for the Undergraduate Teaching

While universities are committed to improving undergraduate education, both in their strategic plans and in their faculty members' statements, 'there is a sense that much of the funding ends up going to research' (Professor Fang – Star University), for example, research labs, associated equipment, and funding for recruiting the team to conduct the research. However, 'I believe that in terms of human support, it is an area where a great deal of support is invested in education ... I believe that more human support, which is not free, is being directed the teaching ' (Dr Tinasol – Maple University). As a result, the question is how research-intensive universities integrate human resources into teaching practice.

If a community is large, it is a good idea to structure it in layers, as a ‘fractal’ of embedded sub-communities (Wenger, 2000, p. 243). Members who belong to such sub-communities also belong to the broader. Each sub-community can

then act to bring together the sub-communities into a larger whole. Sub-communities can be defined with different layers, for example, ‘local chapters of a global community’ (Wenger, 2000, p. 243). In higher education institutions, it can be interpreted as the management structure of institutional level faculty level, and department level. In addition, sub-communities can also be defined by ‘subspecialties’ (Wenger, 2000, p. 243) based on their roles and positions. In higher education, the institution is structured into various sub-communities (Jongbloed et al., 2008).

In this research, I have interviewed not only academic but professional staff including administrative and leadership staff who are involved in undergraduate education. Therefore, I apply the categorisation of subspecialties and refer to the different positions with diverse responsibilities in terms of undergraduate teaching. In addition, this section is to present and explain the perceptions, decisions, and activities that are related to teaching by academic, professional, administrative and leadership staff of the selected universities.

Referring briefly to the conclusion of the preceding *Chapter 6 Case Studies: Findings from Chinese, British and Canadian Universities,* there is a tendency toward increasing the importance of degrees and post-doctoral experiences as prerequisites for academic posts. At Star University, there is also an increasing tendency toward accepting international degrees, which represents the advancement of higher education's internationalisation. This is the beginning point for human resources to promote academic recruitment standards. Having a doctorate or post-doctoral experience, on the other hand, does not have an explicit or direct impact on one's ability to teach.

More specific decisions have been made by the institution to develop additional posts to support undergraduate teaching. The teaching position, or the teaching

faculty, whose primary responsibility is to provide education for students, particularly undergraduates, was founded and rapidly developed as an academic path over the last decade. Cross University and Maple University demonstrated that there are more professional positions that support undergraduate education. At the institutional level, there are academic staff typically who possess expertise in teaching and learning and curriculum and pedagogy development and serve as consultants and planners for academics. At the faculty or department level, there are those who have a greater depth of knowledge in specific areas to support academics. These positions contribute to the enhancement of undergraduate teaching by assisting academics and offering more opportunities for faculty members to discuss and learn about teaching techniques.

Furthermore, as part of the traditional strategy to improve teaching skills, institutions are providing standardised training for academics who have varying needs for their teaching practice. Apart from the training, collaborations amongst academics are elaborated to tell more details of how faculty members share the teaching experience with each other and further develop the community for promoting teaching.

8.2.1 The Development of the Academic Career for Teaching Faculties

The teaching-only academic position is a comparatively newly emerging phenomenon in the higher education field. It has been studied by scholars in various contexts, primarily in the UK (see, e.g. Tierney, 2016; Nyamapfene, 2018), Canada (see, e.g. Vajoczki et al., 2011; Wormald, 2013), and Australia (see, e.g. Probert & Sachs, 2015; Flavell et al., 2018), from various perspectives, including job security (see, e.g. Kurbatova & Donova, 2019), in relations to the scholarship of teaching and learning (see, e.g. Flavell et al.,

2018), and influence of national education scheme (see, e.g. Tierney, 2016).

However, although this type of academic career path is now increasingly used in higher education institutions, the job description, reasons for its use, as well as the career design and development of such a position, differ depending on the national context (Nyamapfene, 2018) and the institutional culture (Flavell et al., 2018). Given that it is a relatively new field of study, both theoretical and empirical studies are limited in scope. Furthermore, there have been few studies conducted on the impact of the formation of this role on the nexus between teaching and research in higher education, in particular, in research-intensive universities.

This section focuses on the creation and development of the teaching-only career path from both institutional and individual perspectives. I start with the working definition to clarify the research objects and give the contextualised findings from three universities in China, the UK, and Canada. I then categorise and elaborate on the relationship between teaching-only academics and teaching-and-research academics. The last section is to share issues and challenges that are currently occurring or that may occur in the future in the field of higher education.

8.2.1.1 Working Definition

To begin with, a working definition is provided for this academic post, which is primarily responsible for teaching, especially undergraduate teaching. At different universities, the job title is referred to as ‘teaching-only teacher’, ‘teaching fellow’, ‘teaching academics’, ‘instructor’ or ‘teaching faculty’. In the following content, the term 'teaching faculty' is applied to refer to the academic position that has more or most teaching assignments as the job responsibilities

than doing disciplinary research. This characteristic is defined by the university through reflection in the job title and job description, as well as acknowledged by faculty members in their everyday work. Three universities describe the post differently, with varying prerequisites and emphasise, as indicated in the following paragraphs.

8.2.1.2 The Contextualised Function of Teaching Faculty

All three universities have academics who hold positions that focus on teaching. However, the initial reasons that drive the teaching-focus positions differ because of the national background of higher education development and the strategic decisions of the institutions.

At Star University, teaching faculty is not a newly designed position but is more likely to be the ‘compromised option’ for academics who are unable to meet university standards on research output and achievements. ‘There is no recruitment on teaching faculty. I can’t say it never happens but not to my knowledge’ (Dr Lou – Star University).

In China, higher education has developed rapidly in past decades, transitioning from traditional to more scientific research-oriented teaching, especially for the research-intensive universities. As a result, some senior staff, who have only taught for the majority of their career and are unaccustomed to conducting disciplinary research, have felt overwhelmed and challenged by the institution’s requirements regarding research achievements. Star University responded to these academics by advising them to transfer their contracts to teaching-only positions, thus eliminating the research-output requirement. In most cases, teaching faculties at the university are responsible for fundamental courses, and usually, the classes are relatively large, with hundreds of students.

According to the teaching faculty at Star University, returning to a teaching-and-research position is difficult or even impossible ‘if you choose to go for the teaching-only position’ (Dr Ko – Star University). Because the teaching workload is massive, it is ‘highly unlikely to have time for doing research and meet the criteria [of the teaching-and-research position]’ (Dr Ko – Star University). Moreover, at the time of writing this thesis, I have not witnessed an academic-career promotion of teaching faculty on this track. In other words, no teaching faculty from the faculty of engineering has been promoted to full professorship. Consequently, at Star University, the teaching faculty was neither widely recognised nor appreciated, owing to the fact this track was not created intentionally as an academic career.

However, an improvement to the evaluation and reward system has been implemented to support teaching-only academics. Star University has set teaching awards regardless of their position (teaching-only or teaching-and-research track). However, teaching-and-research academics always won the awards because the selection criteria not only included the teaching workload, performance and student feedback and evaluations but also research output and research impact. These criteria proved unfavourable to the teaching faculties ‘because the assessment is mainly about research and funding. If you only attend a lot of classes, then the evaluation index is very low’ (Mr Tong – Star University). Thus, teaching-only positions were incomparable to teaching-and-research positions, allowing the teaching-and-research academics to outrun the teaching-only academics significantly with their research achievements. However, in 2018, the award-selection method changed. Now, academics who are on the teaching-only track just compete with other teaching faculties instead of with teaching-and-research staff. The criteria are appropriate, and winners are chosen ‘depending on the teaching skills’ (Mr Tong

– Star University). Therefore, teaching-only staff now win a certain quota of teaching awards, which to some extent, motivates them because their work receives more recognition across the university.

At Cross University, an emerging career stream is evident for teaching faculty. Although the strategic documents contained no details (university strategy or education strategy), academics widely recognised this track. The teaching track has been around ‘for the last five years, at least in the faculty of engineering (Professor Welch – Cross University)’ and designed as a full-time position to better support the teaching practice. It adopted the perspective of ‘hav[ing] more personnel on teaching without the requirements on research output or achievements’ (Professor Welch – Cross University).

At Cross University, the boundary between the traditional track with a focus on research and the emerging teaching track is relatively clear. According to the teaching faculty I interviewed, no strict restriction on transferring between the tracks is evident. However, ‘switching tracks is not what the university wants’ (Dr Nadonnay – Cross University).

Some universities are experiencing an emerging trend of departments retaining more teaching fellows. This trend can be observed, ‘particularly in the more research-intensive universities’ (Professor Lingo – Cross University). The overall attitude from academics towards having more teaching fellows was positive in terms of supporting teaching. ‘They help because they come in with professional knowledge about how to teach better’ (Dr Waxmann – Cross University). Furthermore, ‘students really appreciate that the teaching fellows are excellent when they take that role extremely seriously’ (Professor Ferguson – Cross University).

I queried whether the teaching fellows at Cross University were asked to conduct research. ‘They’re not paid for doing research. So if they do it, they do it on their own time. Some of them do some teaching-related research’ (Dr Matteo – Cross University). I learned from the engineering faculty that although the teaching faculties’ main job is teaching classes, they still primarily conducted research for their discipline. Although research may not be considered a critical criterion for promotion, some teaching faculties continued to actively join research groups and conduct research. In other words, the situation can differ on an individual basis. Furthermore, teaching faculties at Cross University adopted particular approaches to sharing their professional teaching experiences with academics inside the department. It encourages communication between the academic staff of various positions.

At Maple University, the teaching-faculty track was established more than a decade ago. The teaching academics are responsible for taking more teaching assignments and ‘invest[ing] in developing novel curriculum or developing curriculum and developing course material or novel teaching methods’ (Dr Weien – Maple University).

> I’m studying design pedagogy mostly... that was one main focus that the department wanted me to have… I’m also developing open educational resources for students. And a lot of that is happening with students too. So a lot of these grants, when I get them, most of that money goes to hire students to work with me over the summer to develop some of these things (Dr Legrass – Maple University).

According to the information I gathered, the research on the teaching of disciplines is well-developed in the Canadian higher education context. Engineering studies hold academic conferences and publish in journals for topics on teaching engineering. These approaches differ from engineering and

focus more on pedagogical theories and practices. In other words, teaching faculties have their own academic communities to share and improve their teaching and research skills. For teaching faculties, their research primarily addresses the pedagogical perspective of how to teach the disciplines.

At Maple University, teaching faculties were widely recognised and appreciated in their departments and within the university. They were considered ‘excellent’, ‘great’, ‘valuable’, and ‘helpful’. Holding such a position benefits the individual that ‘some people prefer a focus on teaching anyway, so it’s a good career opportunity. So it lets some people pursue their interest in teaching more fully’ (Dr Aecher – Maple University). Furthermore, these positions also support the teaching-and-research academics with less experience and expertise in teaching the discipline:

> They [teaching faculties] figure out all the best methods of teaching, and then they explain to us dummy research professors how to do that in our courses instead of just sort of classic chalk and talk or PowerPoint-type approaches, so that’s educational-wise (Dr Ronaldy – Maple University).

From a financial perspective, teaching academics also benefit the university because the logic is that

> The university’s budget has shifted somewhat that dollars are very much tied to the number of students taught. And so, having dedicated [academics] in teaching enables our department to potentially create more courses, which would then improve the financial flow from central to our department of funding (Dr Ronaldy – Maple University).

According to the faculty I interviewed, students have seemingly benefited from the increasing number of teaching faculties who have more time, energy and expertise in teaching and supporting students. Additionally, because the

‘teaching academics have great ability and [are] professional’ (Professor Franciso – Maple University) about meeting the position’s criteria and expectations, the university is

> Asking a lot from those teaching stream people: that they come in and quickly are expected to start doing innovative things, and they don’t just deliver the same course year after year that they’re all continually adding, expanding, and changing their materials (Dr Ronaldy – Maple University).

Moreover, at Maple University,

> We have more and more people applying for these roles, and applicants’ profiles keep increasing. So they are becoming more and more competitive in their CVs. Then you look at their CVs and all it shows. It shows clearly that these people are doing it because they want to do it. It’s not like they couldn’t get into research; that’s why they have this, nothing like that. They want to teach. (Dr Somerster – Maple University)

This perspective indicates that the position is becoming more popular with stronger candidates, which can further benefit the teaching practice.

Typically, the teaching-faculty and teaching-and-research faculty tracks are ‘pretty hard to cross over [transfer between two streams]’ (Dr Shishu – Maple University). The career-path design is relatively fixed. In terms of the number of faculty on each track, a balance exists between the two and

> I don’t think it’s necessarily that you’ll have equal amounts of people on both tracks. Our university certainly is a research-intensive university. So, for example, in our department, we have about 1/5 or 1/6 of our full-time equivalents are teaching faculty. And that seems to be a good ratio for us. (Dr Legrass – Maple University)

In terms of equal rights, ‘the voting rights that the teaching academics have

when it comes to departmental decisions are equal to the research colleagues and the same process for applying for a sabbatical or a study leave as any other research colleagues as well' (Professor Coyle – Maple University). Additionally, the salary of teaching faculty has increased, although 'it is not equal to the research professors yet' (Dr Sindy – Maple University).

More recently, a career-development improvement has been implemented over the years. In July 2020, Maple University changed the title of 'instructor' to 'professor of teaching' to parallel the traditional 'professor of research'. Each position comprises three levels: assistant professor, associate professor and professor.

Teaching faculties are highly expected from Maple University. They are required to research the curriculum and pedagogy because 'there is an expectation that we do research, that we develop policy, that we developed kind of courses and educational materials' (Dr Micle – Maple University). 'They [instructors] attend conferences, they write papers, but those papers are now in journals like chemical engineering education. And then also, they are expected to have a leadership role in the department' (Dr Ronaldy – Maple University).

Moreover, teaching faculties at Maple University holds another responsibility called 'educational leadership'. In other words, they are required to 'influence/impact through the conference, pedagogy, inside and outside the department and university' (Dr Beope – Maple University), meaning they need 'to show that [they] either design[ed] new courses or influence[ed] teaching of others in some way or brought in new technology or perhaps published about the success of educational technologies or whatever' (Professor Othnirity – Maple University). The participants' descriptions alluded to the idea that innovation and influence are the two key aspects of the educational leadership.

In terms of the workload allocation, ‘the educational leadership faculty should be, in our case, spending some 60%, maybe a bit more on instruction, and then maybe 20% of their time on what we call this educational leadership’ (Professor Franciso – Maple University).

Although the term ‘teaching faculty’ is used at all three universities, the career design differs. Additionally, the reasons that individuals choose or become teaching faculty also vary. At Star University, most of the teaching faculties have chosen this track passively because of the hard-to-reach criteria and requirements of a research-oriented position. In the other two universities, the teaching-faculty position was not always the first choice, but the percentage of academics indicating as such was relatively lower. At Cross University, some teaching faculties only took the position because a research position was not available at the time, or the available positions were not competitive enough. ‘I know people who are very passionate about research, but there just aren’t opportunities for them to pursue that type of career in academia. So they end up going into the teaching stream because there is availability (Dr Tinasol – Cross University). While some teaching faculty are ‘particularly interested in pedagogical research’ (Dr Nadonnay – Cross University).

A similar situation has unfolded at Maple University. Some academics originally intended to become research faculties, but no opportunities were available. However, additional teaching faculty members, especially the ones who have joined the university more recently, are interested in pedagogy and curriculum and prefer teaching.

To understand transferring from the teaching stream to the research stream at Star, Cross, and Maple Universities, I first checked their institutional strategies. None provided clear information on transfer opportunities, but at least

transferring was not forbidden. However, in the fieldwork, participants from both the teaching stream and the traditional academic track said that teaching streams transferring to research streams are highly unlikely. At Star University, the ‘teaching faculty can apply for transferring to research stream every three years’ (Dr Ko – Star University). However, because the research stream is too demanding for them to maintain research achievements, they become teaching faculty. Producing more research output while managing additional teaching assignments proves difficult. At Maple and Cross Universities, although no official regulation has denied academics from transferring from the teaching to research stream, transferring is ‘not what the university is planned’ (Dr Nadonnay – Cross University). Apart from having more teaching assignments and different requirements, some academics have chosen the teaching track because they love teaching; thus, teaching is their first choice, and the career path seems relatively fixed.

The career development for teaching faculty at these three universities differs according to their initial purposes. At Star University, because the position feels like a ‘compromise’, the development of this career path is not well-designed for the long-term development or new academics. Although the university has improved teaching awards by separating the two tracks, the parallel status of the two streams is still lagging. At Cross University, the teaching faculty has been emerging and developing quickly, especially in numbers. Although current information is lacking to illustrate how this track is developed in a more standardised way, the position has gained more attention and appreciation inside the university. At Maple University, the teaching stream has been developed for a relatively long time and parallels the teaching-and-research stream more closely in terms of payment and promotion. The requirements for teaching faculty are not only limited to the teaching practice but also their impact on the academic field of engineering studies and leadership inside the university.

Creating such an academic position does raise awareness about the institutional commitment to undergraduate education. What is essential, though, is how this perspective is understood in practice.

On the one hand, this requirement for the teaching faculty improves the overall teaching-faculty recruitment standards from the perspective of not only the capability and ability of disciplinary knowledge and the discipline's curriculum design but also the long-term influence on the academic field. On the other hand, this position is structured in a way that enables sustainable development. In other words, the position attracts more candidates because the position's potential can be better developed via more competitive candidates. These conditions can be considered a virtuous circle that improves teaching quality in the long term.

8.2.1.3 Relationship between Teaching Faculty and Teaching-and-Research Faculty

In the previous sections, I introduced teaching faculty as a sub-community within the broad community of practice of enhancing undergraduate teaching. Additionally, sub-communities can interact with one another, and members can belong to multiple sub-communities. In particular, I have elaborated on the context of universities' approach to constructing and developing the academic position for teaching faculty.

Lave and Wenger (1991) developed the framework of legitimate peripheral participation to explain the different forms and levels of participation by members of a community of practice, which constructs 'newcomers' to a community as learners on a trajectory towards full participation, as they both absorb and are absorbed in the 'talk' of the 'old-timers' (those experienced in

the ways of working in the community). However, in this research, it is unclear who constitutes newcomers' and who represents 'old-timer'. From the perspective of recruitment, teaching faculty is the newly created position at the university (for Cross University and Maple University). Nonetheless, teaching faculties are more familiar with and participated in the teaching practice, while for some teaching-and-research faculties, they are not at the core of the community of practice for teaching. Therefore, this section is not closely referring to the concept of legitimate peripheral participation by discussing who are 'newcomers' or 'old timers', but rather interpreting the interactions between these two sub-communities. Additionally, how the position of teaching faculty and the interactions between the teaching stream and the research stream of academics further influence the community of practice for teaching at research-intensive universities.

As an emerging academic career path, the teaching faculty mainly differs from traditional academics who have research-dominant responsibilities or make an equal effort at both teaching and research on the basis that this position is teaching-dominant with respect to both time and effort. Teaching faculties have their own community of practice, which is distinct from that of their research-focused colleagues (Tierney, 2016). In different contexts, there are different perceptions towards such a position which also leads to different relationships between teaching-and-research faculties and teaching faculties. No matter the university, the size of its teaching faculty is far smaller than that of the teaching-and-research faculty due to the research-intensive nature of universities. There are three main three types of relationships: the irrelevant or distant relationship, contempt as 'second-class', and cooperation and mutual learning.

- The Irrelevant or Distant Relationship

At Star University, the main strategy for improving and engaging more

professors in undergraduate teaching is requiring all academics to give lessons to students. Therefore, the position of teaching faculty does not attract significant attention as an approach to improving teaching. As a result, an indifferent attitude mostly appears in this context that research academics do not know much about what teaching faculties are doing, let alone work together.

It also appears as so at Cross university. Like Dr Lach said, 'I'm not close to any of the teaching faculties'. From the participating academics who gave this reaction, I found that they usually put substantial emphasis on research themselves. In other words, they cared little about teaching in general – for them, it is rational to have a minor motivation to know and communicate with the teaching faculty. The main responsibilities and advantages of the teaching faculty relate to teaching and learning, which are not original priorities for research faculties.

Some experienced and senior academics who have been in institutions for decades are not familiar with teaching faculty positions because such positions were recently created (especially at Cross University and Maple University), and they are less active or interested in learning their functions and the potential for cooperation with them. However, this idea varies greatly with individuals – not all senior academics hold it. The reason why I conclude that this is a potential reason is that in the data collection, none of the early career academics (working in academia less than five years after graduating with a doctoral degree) held this idea.

- Contempt as 'Second-Class'

The second opinion is more likely to be the reason why there is tension between research-oriented academics and teaching faculty. Although none of my participants expressed this as their personal assumption, some of them feel

some colleagues are not friendly to the teaching faculty due to their judgment of their academic ability and capability; these colleagues also hold the idea that this position is for candidates who do not meet the threshold of disciplinary research achievements.

At Star University, although neither the teaching faculty nor the teaching-and-research faculty expressed this contemptuous view during the interview, there was an inexplicit sense that some members of the teaching faculty more or less lack confidence when asked the question of their cooperation with the research faculty. As an interviewer, I had the feeling that sometimes the participants were not as direct or comfortable when facing questions about the two career tracks as they were when answering other questions, which is also why it is difficult to probe the reasons behind it (considering the research ethics of caring about the reaction of participants).

Based on a reflection of the academics, although there seems to be an improvement in the equalisation of the two tracks, Professor Franciso of Maple University said:

> There's still a sense that they are second-class professors. And I think both research faculty, some research faculty, and some of our teaching faculties, feel that way, which leads to the sentiment that the two streams don't support each other very well yet (Professor Franciso – Maple University).

> So they're definitely viewed as two different career paths. And I think, realistically, it would be much better if we could integrate aspects of the teaching stream into our perspectives on research and aspects of research into the teaching stream even more. But that's actually happening naturally as slowly. So right now there's a little bit of a two-

> tier system where the researchers, generally think that they are somehow better professors than the teaching professors (Professor Yemek – Maple University).

In practice, there are ‘some really kick-ass teaching professors who are kicking the ass of research professors all the time now. They are really good at teaching’ (Professor Penn – Cross University). Therefore, there is an expectation that ‘this [the assumption that teaching faculties are second-class] will be coming to an end, and such tension and misunderstanding of the teaching faculty will be decreased with time’ (Professor Yemek – Maple University).

More specifically, at Maple University, because of the design of the teaching faculty with its focus on educational leadership, Dr Beope (Maple University) said:

> The understanding of educational leadership and the respect, I think, within the department, increased. Only, now, this is interesting. I would say that there still is a feeling in some sense, is [sic] that the educational leadership stream is not on the same level as the research faculty. So it is considered slightly, kind of lower in the hierarchy (Dr Beope – Maple University).

To summarise, although it is ‘unfortunate’, as Professor Yemek (Maple University) said, that there are some research-focused academics who either don’t understand the effort that teaching faculty make towards teaching and learning or simply consider themselves ‘better academics’, there seems to be hope in the trend that the two tracks can become more ‘synchronous and harmonious’ (Professor Yemek – Maple University).

- Cooperation and Mutual Learning

The third relationship is cooperation and mutual learning between teaching and teaching-and-research faculties, and it is most preferable in view of promoting undergraduate education.

At Cross University, a member of the teaching faculty mentioned that he has experience cooperating with a research academic in ‘giving suggestions on the course design’ (Dr Nadonnay – Cross University). However, there is not much information from the side of teaching-and-research academics about their experience cooperating with the teaching faculty.

At Maple University, the relationship between a ‘professor of teaching’ and a ‘professor of research’ seems to be mutually beneficial. In the faculty of engineering, there tends to be a partnership between them in their different focus on their specialities of professional discipline and the profession of teaching. The ‘professors of research’ are willing to learn from the ‘professors of teaching’ on teaching methods and other theories of teaching because the most important research that the ‘professors of teaching’ do is pedagogy-related and they have more accumulated experience and scholarship on teaching. This may lead to a rather effective way of improving teaching in general if the partnership can be long-lasting and mutually beneficial. Based on interviews with both types of professors, there is apparently a sense of appreciation from the research academics who find the teaching faculties extremely helpful in that ‘they figure out all the best methods of teaching, and then they explain to us dummy research professors how to do that in our courses instead of just sort of classic chalk-and-talk or PowerPoint-type approaches, so that's education-wise’ (Dr Ronaldy – Maple University). Professor Anandil (Maple University) said,

> I think having instructors in our faculty and at the university has been a tremendous impact on the quality of the courses that we teach and the

> quality of the experience we are able to provide'. And 'I think it's great. I think that's wonderful. And the teaching faculty is really excellent. Their degrading [sic] structures, their amazing sources of knowledge – I think they're really valuable' (Professor Anandil – Maple University).

Maple University is advanced in that 'those professors of teaching now occupy senior academic leadership roles. So our associate deans for academic [affairs], and this position in the faculty of science, arts, and applied science are all professors of teaching. The professor of teaching is the chair of our senior appointments committee, which is the committee that advises the president on promotion and tenure cases. So I think we're really seeing these individuals as they advance through the ranks [and] rise up to genuine positions of academic leadership', said Professor Coyle of Maple University on leadership at the university level. This approach to promoting teaching faculty aligns with what Wenger, McDermott and Snyder (2002) illustrated that 'giving members a voice in decisions and legitimacy in influencing operating units, and developing internal processes for managing the value they create' (p. 12). In other words, promoting teaching faculties with more decisive power in teaching practice from a strategic perspective can not only enhance their influence on the teaching practice of academics but also promote the value of emphasising teaching in such a community of practice.

According to academics who had experience working with teaching faculty, the experience is usually positive and beneficial. 'There's a cooperation between us, [and] it's been great. I've had at least one of them come with my courses while I was teaching them to get a sense of what I could improve on' (Dr Passiphet – Maple University).

This situation can differ by department.

> ‘In my department, it's very good. I don't know whether other departments do nearly as well. My department puts a lot of emphasis on teaching that we have research professors that care deeply about teaching and spend a lot of time and effort on their teaching. [They] really respect the expertise that we have as people that teach more and spend more time reading the literature. So when I'm working with a research professor, [it] very much feels like a collaboration where we both might have different areas of expertise, rather than, I’ve heard colleagues say in other departments that the research professors always lead and…the educational leadership track person is just meant to kind of follow along (Ms Folham – Maple University).

In general, the relationship between the teaching and research faculties at Maple University is conducive to collaboration and improvement of teaching. Therefore, it has a positive impact on teaching quality. There is evidence that this approach of a two-stream system can work with support from the institution.

From the theoretical perspective of the community of practice, there is the concept of ‘new members’ joining the community of practice. In this research, a community of practice for teaching is not created when the position of teaching faculty is established nor is it established by the teaching faculty that other academics are joining such a community of practice. It was already in place when the university was established and was responsible for education. In other words, the result from this research does not lead to consider teaching faculties to have built their community of practice for teaching, nor are teaching faculties the ‘new members’ of the community of practice for improving teaching. What the universities have done through institutional strategies is promote such a community of practice by increasing more teaching-related activities, whereas all members can share and learn more about teaching through social interaction.

The role of the teaching faculty, therefore, is to foster such a community of practice for teaching by disseminating the value and experience of teaching practice. As a result, the relationship between teaching faculty and teaching-and-research faculties is fundamental for how such a position can be beneficial for promoting the community of practice for improving teaching, and this is the question the universities need to answer after the recruitment and standardisation of academic career of the teaching stream.

8.2.1.4 Potential Issues

In general, having more teaching faculty is positive for teaching. Teaching faculties can bring more experience in teaching and researching pedagogy. In addition, they have more time and attention for students inside and outside of the classroom based on their job descriptions. However, some potential issues need attention, including the unstable quality of candidates, marginalisation of teaching faculty, equity and equal rights related to career development, and the separation of teaching and research in research-intensive universities.

- **Unstable Quality of Candidates**

The creation and formalisation of the teaching faculty position is still relatively new, and some issues have emerged from the practice. The first concern is the unstable quality of the recruitment of candidates. In practice, some academics would deliberately choose this career track because they ‘love teaching’ (Dr Nadonnay – Cross University) and are interested in pedagogical research, or perhaps they intended to have the traditional research track or lectureship but found no availability at the point of job searching. According to one academic who is conducting the selection of candidates for this type of position, it can ‘get very few applications’. In addition, ‘usually, the quality is very bad, the

applicants' (Dr Risso – Cross University), which does not mean 'we have bad teaching fellows, but it is hard to find good teaching fellows' (Dr Risso – Cross University).

To summarise, the quality and influence of the teaching position can be very different from one individual to another. This is considered one outcome showing that the structure of the career path is not mature or well-organised to present a clear professional development plan for academics.

- **Marginalities and Marginalisation of Teaching Faculty**

According to the participants at Star University, it has been a very long period since any new teaching faculty were recruited, and the promotion process for the teaching-only contract is much more difficult than the process for teachers with both teaching and research responsibilities.

Moreover, teaching faculties are marginalised in terms of both academic ability and personnel. According to Wenger (1998: 216), marginalities can be categorised as marginalities of competence (certain members are not full participants) and marginalities of experience (certain experiences are not fully accountable to the regime of competence). For teaching faculties, they are marginalised because of the components that research-intensive universities focus on, namely, research capabilities. On the one hand, most of the teaching-only contract faculty teach general education lessons, which are mostly basic and repetitive courses. This does not require teachers to learn the latest or the most advanced knowledge in the academic field, because the pressure of preparing the course or conducting the discipline research is much lower. Moreover, there are many lessons assigned to teaching faculties, so they have less time to improve their academic ability through reading papers or studying

new knowledge. Therefore, from a knowledge perspective, it may be possible that teaching-only contract teachers are less closely engaged with the knowledge in their academic field. On the other hand, it is common for teachers at research-intensive universities to construct or join research teams to better create research achievements. However, for teaching faculties, without the requirements and pressure of conducting research and less close relationships with the research field, they are less likely to join research teams. Therefore, they also have less interaction with their colleagues, and this may also potentially influence their interactions with other academics. In conclusion, teaching-only teachers are marginalised from both the perspective of knowledge and personal relationships.

- **Equity and Equal Rights for Career Development**

The third issue relates to the equity and equal rights between the two streams of academic positions. In general, there is still a different treatment or gap between the two academic tracks, and it can vary in degrees in different contexts and universities.

At Star University, there was no evidence from either the strategic document or fieldwork that teaching faculty are treated differently, but there is a difference in career development in terms of promotion. As explained previously, the teaching stream is not a track for academics to prosper in academia but a compromised choice. Therefore, there seems to be no chance for teaching faculties to be promoted to full professors.

At Cross University,

> ‘A couple of years ago, the university had a new creative element framework that allowed teaching staff to go all the way from junior

> teaching fellow to professoriate fellow, and I think that was a real bonus for the whole educational mission. Recently the teaching fellows have started to take on some sort of administrative duties as well, that would normally be academic [research] staff' (Professor Lingo – Cross University).

The teaching stream has developed quite recently at Cross University and has become more equal to the teaching-and-research stream by having the professoriate. This is considered a big step because teaching faculties feel 'more appreciated and this position is a serious track and there is something I can expect if I am doing a good job' (Dr Nadonnay – Cross University). The fact is, at the time of this writing, there is no professor of teaching in the faculty of engineering, according to the faculty website.

At Maple University, academics who are from the research stream feel that 'both streams are valued equally' (Professor Lloyd – Maple University). However, when it comes to the details, for example, teaching faculties from different departments or colleges discuss unequal treatment with each other, and sometimes they may be 'not treated equally in terms of respect, source, or status' (Professor Copenhane – Maple University) because of the incomprehension or misunderstanding of the role and responsibility of teaching faculty. I was told that 'teaching stream salaries are increasing and almost [the same]' (Professor Lloyd – Maple University), and 'it [the difference of salaries between research faculties and teaching faculties] starts when you're hired. If it's lower to begin with, you move up, but you never make the same' (Professor Copenhane – Maple University). 'Legally, it's possible to just give everybody a lump sum to make them equal but don't see that happening. It starts from the beginning when you're hired at whatever the hiring salary is and that's negotiable by the department' (Professor Eugeo – Maple University). Although

a review of job descriptions showed no differences in salaries, ‘definitely, there are differences in salary. I’m pretty sure that’s been clearly documented’ (Professor Copenhane – Maple University).

The good news is that there is a concern related to the equalisation of the two tracks, and Maple University is making efforts to formalise and standardise the career path for teaching faculty by creating the track to professorship, equalisation in the job title, and providing leadership positions to teaching faculties. In addition, more academics from the research track are sharing their experiences with colleagues that teaching faculties are being helpful and doing a great job.

- **The Separation of Teaching and Research in Research-intensive Universities**

Previous sections focused more on the development of teaching faculty as a legitimate career path in academia. The last issue, however, is to explain the situation that having more teaching faculties may be contradictory to the main goal of the research-intensive university to integrate teaching and research.

The strategic, competitive, or organisational needs of institutions have led to a new differentiation of teaching and research in Canadian and English academic career paths. At both Cross University and Maple University, there are research academics who think what exactly other professors are worried about, that is, having too many teaching faculties without explaining their role and function can lead to misunderstandings. For example, Dr Passiphet (Maple University) said that having teaching faculties ‘allows the research faculty to ‘have a lighter load, which then means that they can put more effort into the teaching of those more specialised classes’.

This assumption can lead to a misunderstanding from research faculties that they can dodge teaching. Additionally, this goes against the intention of the university to strengthen the relationship between teaching and research.

This issue is further explained in *Section 8.4 Implications for Teaching and Research in World-class Universities* with details on the teaching and research nexus and the debates on teaching and research academics in world-class universities.

8.2.2 The Development of Professional Staff for Teaching

Apart from teaching faculty, each university (Star, Cross and Maple) has incorporated additional supporting positions related to teaching. These positions, however, strongly depend on the individual institution. I begin this section by discussing the perceptions of teaching assistants, technical employees, and administrative staff, all of whom are highly comparable across the three universities. Then, I discuss the curriculum consultant at the institutional level and the educational specialist at the faculty and department levels who are closer to the core of the community of practice for teaching and learning. All three universities utilised a curriculum consultant, whereas Maple University exclusively created the educational specialist's position.

- **Teaching Assistant**

Teaching at all three universities partially relies on support from teaching assistants – a position that is sorely understaffed. 'We are always short of teaching assistants. If they can help us with some administration or marking, we can have more time for preparation' (Professor Hoo – Star University). The

number of teaching assistants is determined by the faculty or department's funding allocation; however, spending money on teaching assistants is typically a low priority. Likewise, 'the faculty cannot afford to have more [teaching assistants], but [it is] also difficult to find those with high capability' (Professor Hoo – Star University).

Consequently, teaching assistants' strengths do not always fit what lecturers want in terms of specialities and expertise. 'For example, my teaching assistant is not directly associated [with] my course. That teaching assistant is not the person who can mark my quizzes or laboratory demonstration' (Dr Nadonnay – Cross University). This misalignment is attributed to the fact that selecting teaching assistants for undergraduate teaching does not depend on individual lecturers. When academics express their requirements for teaching assistants for undergraduates, the 'graduate school is [often] recruiting and mak[ing] the decision' (Dr Nadonnay – Cross University). In other words, academics who want teaching assistants for their courses have limited input.

- **Technical Staff**

All three universities also expressed concern about a technical staff shortage, particularly for engineering programmes. 'We do have some technical staff for the lab, but they usually have short-term contracts because they are expensive' (Professor Shang – Star University). Technical staff can be helpful 'in the laboratory greatly' (Professor Lloyd – Maple), and if '[we] have more technical staff, our students can have more attention and close instruction in the lab session' (Dr Dyanston – Cross University).

- **Administrator**

Regarding administration, academics believed it would be beneficial if the department and faculty had additional administrators dedicated to undergraduate education. ‘We have a lot of administrative responsibilities. If we have more people taking care of these administration work, we will have more time for students’ (Professor Hoo - Star University). From an administrator’s perspective, ‘we are very short of people in the undergraduate administration because of the complexity of this work. It is indeed very busy from the start of the [academic] year to the end. It’s already very challenging for me to meet all the deadlines, let alone doing anything else’ (Ms Jann – administrator of undergraduate education of Faculty of Engineering at Star University) which prevented them from offering academics more support.

To summarise, academics shared a common opinion that supporting staff for undergraduate teaching is insufficient, which closely relates to inadequate funding allocations. Moreover, the capabilities of supporting staff did not always match academic expectations.

- **Curriculum Consultant**

To illustrate the curriculum consultant’s role at the university level, I first have to explain the central unit that functions to support teaching and learning affairs. This unit assumes various names but usually comprises the same fundamental functions, including managing student affairs, developing pedagogy and curriculum, and providing more personalised support to academics regarding pedagogy and curriculum. The structure can differ in terms of the relationship between the vice president’s (education) office and the management hierarchy. Most times, this central unit is the subordinate unit under the umbrella of the vice president’s (education) office. In the following paragraphs, I review the

details of the personalised support for academics on pedagogy and curriculum from the central unit under the different contexts.

At Star University, the academic committee under the central unit mainly undertakes the role of supporting academics and simultaneously conducting evaluations. The committee consists of academic staff from different faculties with diverse disciplinary expertise. However, instead of providing systematic service, the support more often occurs on an individual level and goes widely unrecognised. ‘I’m not sure what the academic support the university is providing. Maybe there are some, but I’m not sure’ (Professor Young – Star University).

At Cross University, the central unit has the role of ‘focusing on developing our staff capacity. So it’s about professional development, about celebrating great practice and disseminating that and so on’ (Ms Cadderton – Cross University). The support for academics often comes in the form of training and workshops.

> We run workshops for all colleagues to come to the centre to learn more about our work, our initiatives, and also pedagogical approaches. We also have the department- and faculty-facing initiatives, so we go to faculty education committees, and we also work directly with colleagues in leadership within departments and faculties. We meet them every year to decide what sorts of support they would want from us. So it’s fully collaborative. (Dr Lou – Cross University)

At Maple University, the central unit has the function of ‘supporting teaching, learning, and technology’ (Dr Beope – Maple University) and works more actively and proactively.

> We help to run the course websites and various kinds of learning technology tools that people use in teaching. Another area is

> professional development workshops for faculties. And then we work with departments or programmes on their whole curriculum, so for the whole four years of their undergraduate degree or their graduate degree, help them look through the courses they have. We also support online courses. We help people create online courses and continue to revise those over time (Professor Copenhane – Maple University).

I was given detailed examples of the function of the centre to provide evidence on how academics think about this unit.

> They help us with course design and curriculum development. They also help with the funding of projects. They don't give the money. The money would come from a different pool. But they actually help me by reviewing my proposals, and they sit on the evaluation committees of the funding. So they know what the evaluate as are looking for. And they provide me with guidance to improve my proposals for funding to make sure that I can be competitive in previous funding (Dr Beope – Maple University).

The centre consists of both academic and administrative staff, and the head of the centre is always an academic staff. The curriculum consultant is a part of the university's central unit. The position was designed for candidates holding a doctorate but who are not involved with conventional teaching and research in their disciplines (usually education-related subjects). They offer suggestions from a pedagogical perspective for academics to improve teaching skills.

- **Educational Specialist**

Apart from the central unit's support, Maple University created a full-time position – the educational specialist – to further support teaching and innovation. The educational specialist is primarily positioned at the faculty and

departmental levels and is described as a ‘discipline-based educational research faculty member’ (Dr Beope – Maple University). People holding this position all have PhDs. They offer consultations from pedagogical, technical and disciplinary perspectives to help faculty members improve course design. Educational specialists do not directly teach students but provide professional aid for academics to improve their teaching.

The educational specialists that I interviewed considered their work as:

> Basically, I help the instructors [teaching faculties] to engage their students. So I can do that by either helping them with transforming their course, doing surveys to get feedback from the students, evaluating the assessments, observing their course and giving them feedback on how things are going (Dr Sindy – Maple University).

According to the teaching-and-research faculties, ‘this job is to help new faculty and even the experienced faculty to develop their course. So they are acknowledged instructional experts, who are expected to keep up with the literature and techniques [of education]’ (Professor Franciso – Maple University). Regarding the technology perspective, ‘[When]I’m trying to do this with my lab, [and] I’m not sure how to do it, you can talk to one of the education specialists, and they all spend whatever it takes to help you out’ (Professor Franciso). In addition, academic staff held the idea that educational specialists were not only helpful in supporting the course design but also in coordinating the communication at different levels of the university in terms of teaching.

One educational specialist explained that ‘people who come to us, faculty members and instructors, are predominantly in the teaching stream’ (Dr Tinasol – Maple University). However, the issue remains that faculty members are not yet fully aware of the educational specialist’s existence and value; these

individuals can significantly support teaching if their role is fully recognised.

Moreover, this position was created as one approach following Maple University's education initiative and is maintained based on the funding allocation. However, the position's stability is not guaranteed because it primarily relies on additional funding, indicating that personnel changes are more likely. The educational specialist position at Maple University is neither secure nor permanent. Department or faculty may stop employing educational specialists if the funding allocations change. Therefore, the position may not reach its full potential in supporting undergraduate education. However, these additional positions and supports have no negative impact on the teaching practice; instead, they require additional time to determine how they can be more effective.

To summarise, these various supporting staff – from teaching assistants, technology staff, administrators and curriculum consultants to educational specialists – help improve teaching inside and outside the classroom. Nevertheless, room for improvement is evident. On the one hand, the importance of supporting staff remains unrecognised by the institution, which is reflected in the funding allocation and numbers of supporting staff. On the other hand, although academics can access resources to improve teaching, not all faculty members are aware or make an effort to utilise them. Therefore, informing academics about available support is vital.

8.2.3 Leaders as Facilitators of the Community of Practice for Undergraduate Teaching

Communities of practice emerged as non-hierarchical structures within higher education, which attempt to re-engage academics in academic collegiality

when given appropriate leadership, resources and activities (McDonald et al., 2012). Buckley and Giannakopoulos (2012) provided a model for higher education that highlights the active role of management in creating communities of practice in the academic environment.

However, what was missing from the literature is a focus on the leadership role within the community of practice – the challenges of the community of practice leadership and how to build the leadership capacity of those who facilitate communities of practice. Leadership was identified as important given the challenging but strategic position of the community of practice leaders, which lies between academic teachers at the 'coalface' and the hierarchy of formal institutions, including senior leaders (McDonald et al., 2012).

Traced back to the original idea of the community of practice, Lave and Wenger (1991) illustrated that a community of practice is not as an entity to be led, but as a process in which learning is 'distributed (p. 98) among the members. McDonald et al (2012) confirmed that there are no claims concerning how community of practices might be led, managed or facilitated. However, Wenger's later writing was contradictory. Wenger (1999) continuously stressed the essential informality, pervasiveness and self-management of a community of practice, while argued that a community of practice must be 'cultivated' by managers (Wenger et al., 2002). Therefore, the question is how can a community of practice be both a spontaneous process and an entity that requires management support and leadership that is 'highly invisible and visible "as appropriate"' (Yaghoubi et al., 2014)? In 2006, Wenger addressed this question by proposing that an alternative ontology of leadership within the community of practice – leadership as stewardship – needs to be developed. McDonald et al. (2012) suggested that although communities of practice differ from other formal organisation structures, they are also capable of similar tasks.

Ramsden (1998, p. 353) described academic leadership as '. . . a practical and everyday process of supporting, managing, developing and inspiring academic colleagues'. Thus, leadership in learning and teaching is situated, grounded in practice and transformational. From an analytical perspective, leadership can be either formal or informal. Formal leaders are those with a specific role in management, while informal leaders may comprise anyone from any level of hierarchy (Jameson, 2008, p. 10).

More recently, the role of leadership in a community of practice and its success have been acknowledged (Wenger et al., 2002; Li et al., 2009). In the community of practice, leadership may administrate and facilitate by focusing on discussions and supporting the development of individual members and maintaining relationships (Wenger et al., 2002). The community leadership evolved over time, taking on roles from facilitation to advocacy on behalf of the network's members, forming a group identity and sense of purpose (King and Cattlin, 2017). Wenger, McDermott and Snyder (2002) proposed three levels of the community of practice participation – core, active and peripheral membership – with members having the potential to move between levels over time (p. 56). Borzillo, Aznar and Schmitt (2011) expanded on this, identifying 'community leaders' and 'facilitators and subject matter experts' as playing key roles in supporting the integration of peripheral members (p. 28).

In this research, the community of practice for improving undergraduate teaching is neither an institutionally 'imposed structure' (Nagy & Burch, 2009, p. 240) nor a spontaneously emergent community of practice. It is a combination of 'top-down' – guided and instructed by the institution and 'bottom-up' – initiated by the community members' practices. In the following section, I use the concept of 'formal leadership' to interpret how leadership is perceived in different contexts and to explain the responsibility and role of university

leaders at different levels and leaders' influence on teaching.

At Star University, the managerial system consists of two broad systems: The Party system and the administrative or academic system (details in *Section 6.1.1.3 Organisational Structure* of *Chapter 6 Case studies: Findings from Chinese, British and Canadian Universities*). In particular, the responsibilities of student affairs and teaching belong to the vice principal of education.

Most academics considered institutional leaders do not understand their disciplinary knowledge or teaching for the disciplines. Moreover, leaders have not conducted any teaching practice for a very long time, and in some cases, the institutional leaders may have never done any teaching. Therefore, one critique about the position of the institution's leadership is that 'the principal and vice principal [including vice principal of education] who don't do undergraduate teaching should have less control of the teaching practice' (Professor Lio – Star University). Overall, academics expected institutional leaders to be 'not only managing but also serving' (Professor Lio – Star University). Therefore, the wanted function of leaders is more about supporting academics than instructing. Academics hope that institutional leaders can trust them and give them enough space to develop their teaching.

Then, what are the institutional leaders' roles and functions? Leaders are symbols that represent the university, functioning as part of the university 'brand'. Because they are considered 'symbols', 'the personal characteristics [are] not critical' (Professor Shang – Star University). Therefore, the academic and political backgrounds of the institutional leaders in the leading universities in China are mostly strong, representing the influences of both academia and government.

The political background, in particular, points to a more visible position: Secretary of the Party Committee. In the context of China's Mainland, the position of the Secretary of the Party Committee is unique. The leadership of the higher education system in China is defined as 'the principal accountability under the leadership of the Party Committee', and it is often not clear what the role and responsibility of the Secretary of the Party Committee are. This position can be defined diversely in different universities and the relationship with the university principal.

In summary, the principal and the Secretary of the Party Committee are two leaders of the university. The principal has more professionalism in the academic field and develops the teaching and research missions of the university, while the Secretary of the Party Committee has more management work and is responsible for detecting access to different kinds of resources, especially those resulting from the university's relationship with the government.

Differing from institutional leaders, faculty and departmental leaders have a much closer relationship with academics, and their influence on teaching can be massive. Their academic capability, teaching philosophy and personality are of critical importance in improving and developing education. On the one hand, unlike institutional leaders, most faculty and departmental leaders still have teaching missions, even for undergraduate courses. Therefore, they have a direct influence on teaching. More importantly, faculty and departmental leaders are the ones who decide how the priorities of the faculty and department aligned with the institutional strategy: 'The leader of the faculty determines the developmental direction of our department and even the discipline' (Professor Wei – Star University). Furthermore, they influence academics at an individual level by sharing their personal experiences and attitudes towards teaching:

> Faculty and departmental leaders can be really important. I was very

> inspired by our previous dean, who is bold, innovative and dares to reform; then, it was possible to actually do something. More importantly, he really understood education, and I was motivated and inspired. We made lots of improvements (Professor Leo, Star University).

On the contrary, if 'the faculty leaders only pay attention to research, then the subordinate teachers will definitely only pay attention to research' (Mr Zi – Star University).

According to the interview, faculty/departmental leaders were very influential, and the influence can be better or worse for enhancing teaching. Therefore, faculty and departmental leaders ought to consider more elements, especially how they think about education and how much effort and resources they are willing to invest.

In terms of management, there are two voices regarding whether there should be more layers of management. One holds the idea that 'it is necessary to have layers of management so the university works in a better structure' (Professor Young – Star University), while the others think 'too many layers make academics feel that there is a distance between [them and] leadership and may make communication even harder' (Professor Hoo – Star University). The communication between the management and academics is generally smooth, and the channel by which to approach leadership is open and clear. But 'there is currently no feedback or explanation if the suggestion from academics is not accepted' (Professor Young – Star University).

To summarise, at Star University, leaders are perceived differently, from the institutional level to the faculty and departmental levels. Although the university (vice) principals (and party leaders in Chinese universities) are critical to decisions about the vision and priorities of the university and resource allocation,

faculty and departmental leaders influence daily teaching practices by influencing academics with their own educational philosophy and directing and redirecting resources to teaching.

At Cross University, the leaders do not have a direct influence on undergraduates as they do not teach at the undergraduate level. However, they have decisive power in directing development and resource allocation, from the institution level to the faculty and departmental levels. According to the strategic document, leadership has the main impact on research and funding. They are also the first to link different levels of the university and to make ensure smooth communication.

In practice, university leaders have a significant impact on how academics perceive teaching. On the one hand, they can emphasise teaching through resource allocation and the recognition of teaching achievements at each level of management. Dr Norman (Cross University) said, when ‘our provost or dean does not care about the quality of the teaching, I can feel there is not much we can do because the focus and resources won’t go to teaching’. On the other hand, a leader can be considered a ‘role model’. If the leader personally pays great attention to teaching practice, academics can become inspired, putting more effort into teaching. When academics were asked to decide which leader can be most inspiring when it comes to improving teaching, they mentioned the provost and vice-provost the most. For example, I was told that the provost of Cross University has achieved the highest level of the fellowship of the Higher Education Academy, which ‘inspires me and makes me feel that even the provost [who] has a lot of work all the time can achieve that’ (Dr Felnados – Cross University).

Academics felt that the development of the university is very much influenced

by the senior management that ‘every time you change the provost, or a deputy provost, the whole institutional strategy changes’ (Professor Rodrigo – Cross University). Therefore, ‘[if] get the right provost, you have a university completely changing its direction. And [if] you get the wrong one, you get a very problematic situation. You can literally go from one side to the other’ (Professor Rodrigo – Cross University).

Some academics certainly felt that leadership at the faculty and departmental levels are more important. ‘I worry more about particularly the two levels below because I think they have a more direct influence on the day-to-day [work]. And they can either support or impede progression’ (Professor Welch – Cross University).

Communication between different groups and levels of management in the university sometimes confuses academics because of misinterpretation.

> I’m fairly sure there must have been communication, but the university [level of leaders are] not very [clear] what is actually happening in the [department]. I never know whether it’s me who’s missing things in emails or if it’s an actually common station that we are [shred] with different [information] (Dr Dyanston – Cross University).

To summarise, on the one hand, leaders at the institutional level (provost and vice-provost) are vital for the development of Cross University. On the other hand, academics are not close to these leaders because of the hierarchical system. In other words, leaders at Cross University could be more influential if more communication occurred without these many layers.

At Maple University, institutional leaders include a president and vice presidents. In a short interview, the vice president academic told me about his role and

responsibilities that ‘my role is a portfolio role that directly supports teaching and learning enterprises at the university across all levels, so, whether that is undergraduate, postgraduate doctoral learning, career and lifelong learning as well’ (Professor Coyle – Maple University). Professor Coyle perceived that collaboration and communication with the deans are excellent. ‘We have regular, twice-weekly meetings with our deans. The academic culture in [different] faculties is quite different. But it’s a very collaborative process working with them’ (Professor Coyle – Maple University). Moreover, the office of the vice president academic has a tight-knit relationship with the director of the centre of teaching and learning, whose function and responsibility is to support academics in their teaching. Academics relate that they usually do not have any communication with the president or vice presidents.

At the faculty and departmental levels, the faculty dean ‘essentially look[s] after the resources’ and maintains more of an ‘HR function’ (Professor Tesfay – Maple University). In other words, this position does not have a close relationship with educational practice. Rather, the vice dean academic is in charge of teaching and learning:

> My portfolio includes anything that has to do with the students’ academic experience. So that would be a curriculum. So any curriculum changes, any introductions of new programmes, or new courses, or changes to programmes and courses, that’s something, that process I would oversee. I also oversee some programmes, special programmes that are housed outside of departments (Professor Haddison – Maple University).

Department heads are concerned with what and how academics may make a difference in their teaching practices. The department head is responsible for ‘assign[ing] teaching to our faculty [members]. And that’s a matter of balancing

skills and needs. So you know someone's good at this and here's the course' (Professor Franciso – Maple University). Moreover, the department head is in charge of students' feedback and course evaluations and usually has a comprehensive understanding of teaching inside the department, providing targeted support from a managerial perspective. However, the responsibilities of the department head are not always the same, but they are 'very much defined by the head himself. So there's not a list of jobs that I must do but more like a general description of the role' (Dr Beope – Maple University).

In most cases, academics have good relationships with department heads and faculty deans, particularly department heads. Academics think they are 'supportive, and they welcome new ideas. So when I want to do something new for my course, I can go to our department head' (Dr Passiphet – Maple University).

In summary, at Maple University, the president, the vice president and the deans are close to teaching, learning and resource allocation from a strategic perspective, rather than a practical perspective. Department heads closely interact with academics on a daily basis regarding teaching affairs.

Referring to previous theoretical and empirical studies, this research partially proves that leadership is crucial in a community of practice, in particular, by impacting how teaching practice is perceived and improved. Overall, the university principal, provost or president, and the vice principal, vice provost or vice president in charge of teaching and learning, are not considered influential to teaching in most cases; they direct the university's priorities and allocate resources. Moreover, the personal experiences of university leaders with regard to teaching can be very inspiring for academics. If leaders show that they care about teaching and make (or made) an effort to either teach students

or study how to teach, academics are more likely to believe that teaching is recognised and appreciated.

At the faculty level, leaders are one step closer to academics, particularly regarding strategic influence. The department head can be decisive in teaching practices. As instructional and faculty leaders, they not only have strategic power to establish priorities and allocate resources but are also deeply involved in the detailed practice, from evaluating course design to considering student feedback after the delivery of the course. Moreover, they not only 'supervise' academics' teaching, but are also involved during the process by providing support or finding targeted support for academics. In summary, formal leadership can affect the cultivation of a community of practice for teaching. It can be both positive and negative, and it relies heavily on leaders' individual capabilities and philosophies of education.

To summarise, in *Section 8.2 'Financial Resource for Research While Human Resource for Teaching' (Dr Tinasol – Maple University) – Sub-communities for the Undergraduate Teaching,* I elaborate on the human capital that is applied to improve undergraduate teaching. Three universities share the similarities of having teaching faculties as one of the main approaches with different expectations. The key to the effectiveness and efficiencies of promoting a community of practice of improving teaching heavily relies on the relationship between teaching faculties and teaching-and-research faculties.

Other professional positions for supporting undergraduate teaching include teaching assistants, administrators for undergraduate affairs, technical staff, curriculum experts, and education specialists. These positions are valuable in creating a supportive environment for undergraduate teaching. However, both quantity and quality can be improved to meet the expectations from academics

for teaching practices.

8.3 Practices for Improving Undergraduate Teaching

For a community of practice, practices are utilised for achieving its common goals (Wenger et al., 2002). From the fieldwork, standardised training for teaching and collaboration between academics are two main practices for improving undergraduate teaching.

8.3.1 Standardised Training for Teaching

Teacher training is viewed as a vital strategy for strengthening teachers' content knowledge and developing their teaching practices so that they can teach to high standards (Feiman-Nemser, 2001). There used to be an assumption that ‘academics with strong research backgrounds make better teachers, but in practice, this is not always the case’ (Professor Young – Star University). Therefore, even though academics usually have a strong research background from world-class universities, they are still required to take training either inside or outside of the institution in the form of lectures and workshops, a part-time degree, or certification in pedagogy. These standardised and developing approaches for teacher training further strengthen the idea that teaching is a profession that can be learnt.

In this section, I categorise teacher training into three levels. First is the part-time master’s degree in pedagogy and curriculum, which is the least utilised approach for teacher training. Second is the training certification provided by either the university’s education faculty or by other organisations which are offering such certifications. The third is the teacher training provided by the university, mostly from a central unit that usually has the responsibility of

teaching and learning affairs. This is the most common teaching training for academics.

For the part-time degree, it is not commonly required or encouraged by the university. I did not have many details of this approach from the fieldwork.

For the certification, Cross University and Maple University both have adopted this standardised teacher training. Especially in the British context, the Higher Education Academy (HEA), which is the body that champions teaching quality, administers the UK Professional Standards Framework (UKPSF, 2011), to which many institutional PGCerts are aligned. HEA accreditation allows those who complete their institution's PGCert to earn a fellowship from the HE. This has become more relevant recently because it is now one of the collected statistics for universities and it is the aspiration of many institutions for their academic staff to achieve 100% HEA accreditation. In addition, a fellowship in the HEA may be required for the promotion of academics whose focus is on teaching, learning and scholarship:

> So we have to do a teaching fellowship which is a higher education academy of higher education teaching fellowship. So we all have to apply for this now. And we have to not only understand how to teach and how to respond to feedback on how to behave but also how the relationship is built and so on (Dr Hernandez – Cross University).

At Maple University, Ms Folham shared with me her experience that

> A few years ago, I took a class, it was a one-month faculty certificate program on the scholarship of educational leadership. We read an article about good teaching, scholarly teaching, and the scholarship of teaching and learning. So, when I think about teaching and research, that's often where I go (Ms Folham – Maple University).

In summary, the certification of training can be done at different levels institutionally or nationally. They both have advantages and disadvantages, and both require different focuses. A certification like the HEA Fellowship is more standardised and more widely recognised, but it may place less emphasis on the teaching and learning characteristics of the discipline. This can be compensated for by the other levels of training and the influence of the association on the disciplines. Conversely, the faculty or department level of training is more tailored to the consideration of discipline-specific expertise and experience. Therefore, for faculty or department training, it needs to be cautious not to deliver courses that are separated from the communities in which their subject matter is irrelevant (Wenger, 1999).

At the institutional level, teacher training has a long history of being applied in higher education to help academics understand how teaching is conducted at their university and to improve their teaching skills. In this study, all three universities offer training for academics through a central entity that is separate from departments. It is usually called the centre for teaching and learning. In the three universities in this study, teacher training is most often provided to the new academics via lectures and workshops.

It is instructive for academics to understand more from the pedagogy and curriculum perspective:

> I had to follow this kind of training which I felt was a part of a world-class program where some standards needed to be met, some questions need to be asked about your teaching and that made me feel that was kind of a standard. I was kind of enforced, but overall, I felt it was a good experience in a way that the idea of being asked questions and questioning yourself when you are in front of a classroom is very useful.

> I think it forced me to look at my teaching in a more critical way, trying to improve it with a high standard in mind. The content of the lectures was useful as well in terms of the questions where they were triggering (Dr Felnados – Cross University).

However, there is also the opposite opinion that academics did not seem to really care that ‘we have many training sessions and summer school for us to share teaching experience, but most of the teachers do not pay attention to this’ (Professor Hoo – Star University). Therefore, although the majority of academics thought it is reasonable to have such a centre, ‘especially for the subjects that traditionally have no training for teaching undergraduates’ (Professor Kim – Star University), others commented that ‘there is some kind of training provided by the university but I’m not sure about the effect’ (Professor Penn – Cross University) and ‘the effectiveness and efficacies is in doubt’ (Professor Ping – Star University).

Moreover, Professor Kang (Star University) argued that academics surely understand teaching, and it is just a matter of choice and priority whether they want to make effort in teaching. Professor Hing (Star University) added the idea that teaching ability is ‘nature instead of nurture’, so it can be difficult to improve dramatically through training.

Traced back to how PhD students are cultivated, doctoral students are not commonly trained to teach, despite the fact that working as teaching assistants is widely recognised during the study. In other words,

> As a scientist, when you graduate [from your doctorate], you will probably spend many years as a postdoc if you pursue a career [in] academia. And while you're [a] postdoc, usually you are not [teaching]. what you will be encouraged to do [is] to try and focus like almost one

hundred per cent on your research. (Dr Lach – Cross University).

This finding further proves that academic and professional identity in higher education is influenced by personal attributes, early socialisation experiences, and contextual factors at both doctoral and initial career levels (Clarke et al., 2013). In other words, cultivating the community of practice for teaching in research-intensive universities requires to learn more about how academics are cultivated before they join the academia. To respond to this fact, Cross University and Maple University start to 'provide PhD students training for teaching' (Dr Tinasol – Maple University). However, it is mostly provided for students who have teaching assistant roles and it 'is not compulsory' (Dr Lou – Cross University). As a result, achieving the goal of having more academics with teaching skills through training doctoral students can be limited. In addition, it requires more universities to join this scheme and the effect cannot be proved or tested in a short time.

To summarise, although the universities all have centres for teacher training and they offer similar types of training, the effect is hard to evaluate. It differs individually, for example, the stage of academic career and personal presumptions and interests of teacher training.

8.3.2 Collaboration Between Academics for Undergraduate Teaching

This section focuses on how academics collaborate with one another, rather than engaging in standardised training, to improve teaching. Primarily, there are two stories to be told. One is the 'apprenticeship'. This mode is divided into two approaches. On some occasions, new academics are assigned to learn from experienced lecturers through auditing, meaning listening to lectures given by experienced professor to undergraduate students. On other occasions, senior

academics and new or early-year academics collaborate to design and deliver the course. The ‘apprenticeship’ usually happens with encouragement or instructions from the university or faculty. The other story is that of spontaneous collaboration between academics based on research and teaching interests, which organically emerges from academics instead of being assigned by the university.

At Star University, when I asked about teacher training (referring to the university-provided training), Professor Song (Star University) shared with me his experience of learning to teach when he first joined the university in the early 2000s, when ‘teaching training was not as well-established as it is now’ (Professor Song – Star University). His experience was that ‘the university asked all the new teachers to listen to the experienced teachers’ class, but I was the only one who went there. I found it useful, so I did it—not because I was influenced by the regulations’ (Professor Song – Star University). In other words, auditing classes from senior lecturers used to be the only way to improve academics’ teaching skills, and it was not applied strictly. However, this approach can be surprisingly effective, especially when the experienced teacher is skilled in teaching.

> I listened to more than half of the whole course because I think that professor really did a good job. Especially when I prepared lectures myself and felt like I didn’t know how to tell the students about a certain detail, I would definitely listen to what he would say. Then, I would have a reference, and I would have more experience (Professor Song – Star University).

Nowadays, this approach is rarely recommended by Star university despite its great potential for sharing teaching experiences and skills with new academics. The question is this: how many new lecturers would be motivated to learn from

experienced academics by auditing their courses?

At Maple University, there is a scheme called ‘pair teaching’. It is a teaching model in which ‘one course is allocated with two instructors [no matter teaching stream or teaching-and-research stream], who jointly teach the course’ (Professor Franciso – Maple University). The scheme was developed about five years ago when “the dean and all the department heads were [wondering], ‘Should we do this, or shouldn’t we do this?’ And, we thought that [it] was a good thing to do [for improving teaching]” (Professor Franciso – Maple University). The scheme’s details are as follows:

> Whenever we hire a new person, [he or she will] teach their first course with an experienced instructor. So they’ll teach at the same time. Then they’ll see, kind of right in the nitty-gritty details, how everything is put together. How do they prepare for a classroom experience? How do they structure the course? How do they talk to students? And, after each meeting, they might have three formal meeting times a week, the instructors will talk about ‘how I did this and that’ (Professor Franciso – Maple University).

Moreover, this scheme is ‘built into our hiring. It actually appears in the contract when we hire a faculty member that their first teaching experience will be a paired teaching experience’ (Professor Franciso – Maple University). This information was further confirmed by a new lecturer that:

> I’m not teaching for the first year, and then I will [be] team-teaching courses that exist already. So, I’m paired with other instructors who are experienced at teaching a course in a certain way, and then I will team-teach it with him [or her]. And then over time, I’ll develop my own courses with them. So, there’s a long induction process in the department. And, it seems that they want to train me to teach alongside people in the way

that they're already teaching' (Dr Aecher – Maple University).

Additionally, 'it [the pair teaching scheme] costs the faculty the equivalent of one course, and the cost of the other [experienced] instructor will be covered by this funding from the university' (Professor Franciso – Maple University). In other words, this teaching scheme is financially supported by the university, and it can be developed sustainably because it does not incur additional costs from the faculty to double their budget for teaching.

Apart from the 'apprenticeship' guided or supported by the institution that new lecturers learn from the skilful teachers through auditing or pair teaching, there are occasions when academics work on one course or module together because of their personal relations and interests. At Cross University, Dr Waxmann (Cross University) told me that he was collaborating with another academic on one module that 'we wrote it together, and we teach it together'. This idea of collaborating on teaching originally came from their previous experience of collaborating as researchers that they 'do research together—a lot of it; maybe about half of our research has been together' (Dr Waxmann – Cross University). Dr Waxmann was teaching this particular course for several academic years already, and his partner lecturer joined when they had a matching schedule to teach together. 'We completely revised the whole course and spent quite a long time writing out the whole course, deciding what to do and what to put in each lecture' (Dr Waxmann – Cross University). To further validate the design, they 'sent it to various colleagues around the world who teach this subject to get their feedback' (Dr Waxmann – Cross University).

The collaboration turned out to be highly successful, and the high quality of teaching was greatly appreciated by the students. However, this emerging collaboration among academics is quite unusual. The smoothness and

efficiency of the whole process were highly dependent on the fact that Dr Waxmann (Cross University) and his co-lecturer for this course knew each other and had already collaborated on many research projects prior to starting the collaboration. The strong trust between them makes both feel comfortable when discussing the course's design: 'sometimes, you can say something stupid or make some mistakes, but it doesn't matter [for us]. We know each other – that we both have good intentions to make this work' (Dr Waxmann – Cross University). In other words, spontaneous collaboration among academics for teaching requires a strong personal relationship.

Moreover, although a collaborative preparation stage requires much more effort than preparing for a lecture on one's own, 'it is slightly less pressure for me to do this [course], and it is more relaxing because we are both doing the [lecture on what] we are good at, and we look after each other' (Dr Waxmann – Cross University). Based on Dr Waxmann's experience, the collaboration with another lecturer on teaching is enjoyable, and it is beneficial for lecturers and students. However, spontaneous collaboration is highly reliant on the personal relationship between the academics in question, and it cannot be easily pushed by an institution.

To summarise, universities are applying teacher training for improving teaching skills, especially for new academics as a standardised procedure. However, the effect remains unclear. Academics are collaborating for teaching through learning from experienced academics or initiating the innovation of certain courses. No matter the collaboration is instructed by the university or emerged spontaneously from academics, the feedback from academics is usually positive in terms of improving teaching skills and providing better learning experiences for students.

8.4 Implications for Teaching and Research in World-Class Universities

Buysse, Sparkman and Wesley (2003) suggested that communities of practice can provide ‘a framework for integrating educational research and practice’ (p. 265) because communities of practice offer educators the opportunity to work together to conduct research focused on improving their pedagogical practices.

The teaching and research nexus has attracted more attention in higher education as it is widely accepted that both are important to modern universities (Coate et al., 2001; Jenkins & Healey, 2005; Brew, 2006; Crow, 2010). The intersection between teaching and research, particularly in world-class universities that are often research-intensive, is a critical topic for the development of education, including undergraduate education.

The relationship between teaching and research can be investigated from different levels and perspectives, including those of undergraduates (see, e.g. Elsen et al. 2009) or graduates (see, e.g. Lindsay et al., 2002). Others have studied the relationship from an academic’s perspective (see, e.g. Roberson, 2007), a student’s perspective (see, e.g. Lindsay et al., 2002), or a management perspective (see, e.g. Taylor, 2007). Neumann (1992) examined teaching and research nexus from the tangible, intangible and global connections.

This section examines how institutional strategies address and influence teaching and research nexus at Star University, Cross University and Maple University. There are two recurring themes include the relocation and reorganisation of university campuses and the integration of teaching and research for undergraduates. Then academics’ preferences between teaching and research are discussed to address the overall attitude of academics. The last part reflects on the process of career development of teaching faculty to

further explain how the teaching and research nexus develops in research-intensive universities.

8.4.1 Institutional Strategy and the Teaching and Research Nexus

In this section, two practices are examined in relation to the teaching and research nexus that are influenced by the institutional strategy, namely, the move and restructure of the campuses and the integration of teaching and research for undergraduates.

- **The Relocation and Restructure of Campuses**

One issue that receives attention in discussions of institutional strategy concerning the teaching and research nexus is the moving and restructuring of the university campus. It is common these days that universities need to expand to accommodate more students, academics and facilities. Then, there emerges the issue of having more than one campus, and sometimes the campuses are far from each other. More often than not, there are unresolved tensions between core (main campuses) – where the bulk of staff, funding and teaching and research activities are located – and more peripheral campuses characterised by stronger levels of local embeddedness. Generally speaking, peripheral campuses are mostly dedicated to educational tasks or training around a sub-set of knowledge domains, often within the professions (Gopaul et al., 2016).

For example, at Star University there are two campuses that both have teaching for the Faculty of Engineering, causing inconvenience for both students and academics who need to commute between campuses. This ‘increases the cost of time’ (Dr Ko – Star University) and ‘makes it difficult for students to choose the classes because if two lessons are scheduled one after another but on two

campuses, it is just not possible for them' (Professor Kim – Star University). This situation, however, seems to have no negative impact on research but 'provides more reasonable allocation of the resources for the research' (Dr Fa – Star University).

At Cross University, this tendency is evident as well. Cross University has been planning an extension with a new campus for a long time and now has a new campus located more than ten kilometres from the original campus. Cross University is both relocating currently employed 'academics and recruiting new ones specifically for the new campus' (Professor Welch – Cross University). Based on interviews, the academics who are now commuting between two campuses have expressed positive views such as 'with the new campus, we were able to start doing that real large scale testing program just because that [space] has been made available to us' (Dr Derya – Cross University), while for teaching, 'it is still too early to say what [does this] mean because they are still doing some adjustments for the degree education but I think they are trying to have different focuses in [two campuses]' (Dr Derya – Cross University).

At Maple University, there is another campus apart from the main campus, which was an independent college that merged with Maple University decades ago. This additional campus operates 'sort of autonomously' but has collaborative programmes with the main campus. Both campuses have faculty or school of engineering, and academics 'co-supervised students' and develop 'joint programmes for undergraduates' (Professor Anandil – Maple University). In other words, at Maple University, the two campuses are relatively independent and work autonomously in their own programmes. Academics are based on either campus and collaborate through programmes.

To summarise, having more than one campus can have different impacts on

teaching and its relationship with research. In most cases, it requires academics to put more effort into teaching when it is not on the same campus. Having different campuses does not appear to have a significant influence on the teaching and research nexus.

- **The Integration of Teaching and Research for Undergraduates**

In recent times, especially in research-intensive universities, the integration of teaching and research is commonly discussed, and there are practical suggestions made and actions undertaken by the institution.

In the Chinese context, it is generally accepted that teaching is of great value and university teachers must prioritise and take responsibility for educating undergraduates. However, in the competitive environment of a world-class research-intensive university such as Star University, the teaching effort must be compromised in order to increase research output. Therefore, how academics approach the job of teaching is more likely to depend on an academic's 'conscience' or conscientiousness and moral value' (Professor Hoo – Star University), and 'it can be very different from one individual to another' (Dr Lou – Star University).

At Star University, there is a trend to explicitly encourage such a movement of integrating teaching and research. Academics generally believe that 'what helps students most is that when academics who have a strong research background can teach with the appropriate teaching methods' (Professor Young – Star University). Some professors believe that 'students sometimes have very intriguing and inspiring questions and comments, which pushes us to further reflect on our research' (Professor Hoo – Star University). However, 'it is difficult and unnecessary to apply advanced research into the lessons for the early

stage of undergraduate' (Professor Shang – Star University). Moreover, 'the lessons for the early-stage undergraduate students also cannot help academic's research' (Professor Song – Star University).

In practice, apart from encouraging academics to share with students more about their past and current research, Star University provides 'opportunities for undergraduates to participate in the lab as soon as they are qualified' (Dr Pen – Star University) as another approach to expose undergraduates to research activities.

At Cross University, the core theme to develop the relationship between teaching and research is the concept of research-led teaching (see details in *Section 6.2.2.3 Educational Framework for Integrating Teaching and Research*). The general idea is that undergraduate teaching 'should not be that is based upon black and white sterile or static textbooks, it should be reflecting the dynamics of where the field is moving, different influences today's environment' (Professor Chaloun – Cross University). Integrating teaching and research is 'critical for world-class universities' (Professor Lingo – Cross University) because students 'need to know their subjects quite inside out in order to get the leadership positions' (Professor Lingo – Cross University). This concept is accepted by most academics as a trend to further combine teaching and research. To achieve this teaching and research integration, the university attempts to 'immerse undergraduates in the research environment that built up so students work alongside research teams, they understand what the new research frontiers are' (Professor Chaloun – Cross University).

In practice, 'the operating principles should be that we expose our students to the research that is happening in the university. And students benefit from that, both in terms of opening their horizons, looking at possibilities for careers, etc.,

but also being better educated regarding what the forefront over their subject has' (Professor Eilas – Cross University). Academics believed the most common occasions that the research can be applied in teaching are 'giving the context of the field' (Dr Lach – Cross University), 'giving example, real examples in a class that we're working on, link to what they're learning about' (Dr Waxmann – Cross University), and engaging students in the 'research-oriented project', (Dr Felnados – Cross University) or 'optional modules with a research [focus]' (Dr Nadonnay – Cross University).

However, there are several issues in the implementation of these principles. First, based on the institutional documents, there is no clear definition of what the 'research' is that should be integrated with education. Therefore, this raises the question of what counts as 'research' and what doesn't.

Furthermore, a key question is whether the undergraduates, especially in the first or second year, really need that much 'research' in their education. 'It's very hard to bring what I am doing up in a teaching context, especially if it's an undergraduate level teaching' (Dr Derya – Cross University). On the one hand, in engineering, there is a large amount of fundamental knowledge and skills that undergraduates need to master to obtain accreditation in the engineering profession, which makes it difficult to add too much 'advanced research', or find sufficient time to do so. 'It's not helpful to cover, to spend a lot of time looking at very advanced niche topics if they displace fundamentals' (Professor Sliderin – Cross University). Moreover, 'I think there's a danger in research if you try to talk about research too much in your teaching that students are [going] down a rabbit hole which is coming very, very focused' (Professor Chaloun – Cross University). In addition, academic staff have the perception that 'we don't have students for too long around to be able to really connect the research into teaching' (Dr Nadonnay – Cross University). On the other hand, the percentage

of undergraduates who want to pursue an academic career is much lower than that of students who want to directly join the labour market. In other words, how much do students need the research? This question is also related to the definition of ‘research’.

At Maple University, the institutional strategy explicitly mentioned ‘research-based teaching’. Based on the fieldwork, there were two main views related to the integration of teaching and research. On the one hand, some academics believed these two activities ‘occupy different parts of the brain’ (Dr Passiphet – Maple University) and in practice, ‘it is not often there's a close relationship between someone's research and their undergraduate teaching’ (Professor Haddison – Maple University). For undergraduate teaching, it is more important to focus on the fundamentals and provide the context and background of the research field. Although some academics do not agree with the idea of research-led education for undergraduates, they appreciated this initiative for ‘sav[ing] my time for preparing different materials [for the class], [but] sharing more of my current research project [in the class]’ (Professor Torb – Maple University).

On the other hand, other academics believed teaching and research ‘definitely feed into each other’ (Dr Weien – Maple University) and ‘should be connected’ (Dr Aecher – Maple University). Academics are generally willing to ‘expose [students] to cutting edge research and open questions and give them opportunities to do that’ (Dr Aecher – Maple University). Especially when the course is related to an academic’s research field, it is more natural to combine teaching and research that

> I have taught courses where the course material is very closely related or aligned with my research interest, and that’s beneficial, gives me a chance to share my experiences with the students, which they always

> appreciate hearing sort of those, and it can help give me some thoughts. Sometimes the students ask good questions that I hadn't thought of otherwise (Dr Ronaldy – Maple University).

However, academics noticed that ‘sometimes academics can be too focused on their research, and they assumed that ‘all students want to be academics or want to eventually do a PhD and do that kind of research. And I think we have to be careful of that because not all of the undergraduate students want to go into a PhD later’ (Dr Aecher – Maple University).

To summarise, universities are strongly encouraging the intersection of teaching and research at the undergraduate level. However, a high level of flexibility and autonomy needs to be guaranteed for academics because of the complexity in practice, especially because of the disciplinary difference, students’ academic capabilities, and expected learning results for the undergraduate level.

8.4.2 Academics’ Perceptions and Response to Teaching and Research Nexus

- **Academics’ Preferences for Teaching and Research**

In a community of practice, the domain is the shared interest for developing the practices. In other words, the common goal is the core of a community of practice. In this research, even though undergraduate teaching has attracted wide attention from academics, their preferences between teaching and research imply their choices of engagement in teaching practice. From this perspective, a low preference for teaching can potentially have a negative impact on sustaining the community of practice for improving undergraduate teaching.

Referring to the interviews with academics, the vast majority of academics considered both teaching and learning are important. However, academic work is intrinsically motivated. As a result, their preference between teaching and research may reflect how academics think about these two activities and therefore influence their decisions and actions.

In the interviews, the academics were first asked about their preferences for teaching and research to determine their attitude. At Star University, slightly more than half of the participants expressed a liking for both teaching and research to a similar degree; the rest expressed that they prefer research and none of the participant favour teaching over research. Most participants can recognise the importance of teaching, but research is the primary reason they choose to work at Star University. This is either because of their interest, or the perception that research is more important and challenging, and therefore, defines them as more capable in the academic field. Moreover, it is also the research that is more decisive in their career development.

According to Professor Young (Star University), the influence and function of teaching and research are different at the social level and the individual level. Research is more valuable in presenting academic capability, while teaching is more influential for societal development. For individuals, doing research is more important at a world-class university such as Star University, which 'determine[s] how further they can achieve in their [career path]' (Professor Wei – Star University).

Among all the participants at Cross University, only one preferred teaching, and 'I go to university because I wanted to teach' (Professor Rodrigo – Cross University), while half of the rest preferred research and the other half liked both

to the same degree. For the participants who prefer research, various reasons are given: ‘research [is] the motivation for people to [pursue] the academic career because you enter academia from being a PhD student or postdoc’ (Professor Lingo – Cross University); ‘the dynamic characteristics of doing research is fascinating’ (Dr Derya – Cross University); or ‘I like the independence of research and flexibility’, (Professor Penn – Cross University). It can also be because that ‘teaching has become harder. I don't know if it's because of the system, but I think it is [also] the student numbers affect a lot of things’ (Dr Dyanston – Cross University) or ‘teaching involves a lot of administration as well’, (Dr Kenna – Cross University). Interestingly, one participant expressed the same view as Professor Rodrigo who prefers teaching to research that ‘research is the reason why I go into this job’, (Dr Lach – Cross University). These views reflect the current dominance of research at Cross University.

At Maple University, the importance of teaching was widely recognised. Academics mostly understood the value and necessity of undergraduate teaching because ‘it is share[ing] knowledge not only to students within our university but also beyond that’ (Dr Passiphet – Maple University). In addition, academics intrinsically have the idea that as university professors, they were privileged with more educational resources along with career development, and it is of great importance to providing quality teaching for society.

Interestingly, academics found their feelings for teaching change along with their career stage.

> [Teaching] is getting more important to me. It starts to mean more to me as I progress in my own career. So, when I was a younger professor, I think I gave more attention to building up my research area, my research expertise. Because as in any research university, that's the basis for a

> successful career. But as I progress further, as I achieve moderate success in my own research career, I started to appreciate more the value of teaching, or directly interacting with the young people and import on them, not only your scientific knowledge or research expertise, [but also] the ability to analyse, to view, to understand to critique, yeah, it goes beyond academics (Dr Torb – Maple University).

In other words, academics have more appreciation for teaching when they are relatively established in academia.

To summarise, the preference towards research is dominant in all three universities, which is consistent with the assumptions of a research-intensive university. Therefore, approaches to increase the interest or effort for teaching are more of a concern at the research-intensive universities.

- **The Interaction between Teaching Faculties and Teaching-and-Research Faculties**

In *Section 8.2 'Financial Resource for Research While Human Resource for Teaching' (Dr Tinasol – Maple University) – Sub-communities of University Staff for the Undergraduate Teaching,* I explained the sub-communities inside of the community of practice for undergraduate education. In addition, sub-communities are usually having overlaps and members of the community of practice can cross different sub-communities through their practices.

As has been comprehensively addressed and explained in *Section 8.2.1 The Development of the Academic Career for Teaching Faculties*, although the position of teaching faculty is unlisted in the three institutions, the reason and approaches are diverse. Moreover, the institutional culture and individual attitude towards their role and identity of being a teaching faculty are differently

constructed and perceived, which, therefore, leads to diverse influences on the teaching and research nexus from the pedagogical and institutional perspectives. Moreover, the interactions between different sub-communities can lead to a decisive impact on the community of practice, in this section, the teaching and research nexus.

One possibility is that there is very limited influence on the teaching and research nexus when the two streams are not closely related. Another possibility is that the increased utilisation of teaching fellows can lead to the separation of teaching and research. According to the academic interviewees, academics may rely too much on teaching fellows for the teaching assignments and then have fewer teaching assignments themselves, leading to the situation that more academics do not do teaching anymore. The separation of teaching and research can be troublesome for academics in terms of the value of being a teacher in higher education institutions. Moreover, students would have narrower access to academics who are influential in their research field. However, learning from the best may be an important reason why they came to such a world-class university. It can also have a negative influence on the sustainable development of the university as a comprehensive institution that has both teaching and research focuses.

In the fieldwork, some academics held the idea that having teaching faculties is to

> Give people time and space to develop good teaching ideas. As a research faculty, in my contract I'm supposed to spend 40% of my time on teaching. So, there's a limit to how much I can do. If I have other ideas for teaching. I don't necessarily have the time to really study how that could work or the best approach for that or get the resources together. So that's where it's helpful for me to have other dedicated

> teaching staff, because I can go to them and say, I have this idea. What do you think about this? How can we develop it? And they have more time available to put into things like that. So, I think it works really well to have teaching and research staff (Dr Aecher – Maple University).

Conversely, there was also a certain number of research-focused academics who have the attitude that ‘the teaching fellows take on more teaching, which has allowed me to reduce the teaching load of the academic staff. So, the academic staff are kind of happy’ (Professor Lingo – Cross University), or

> I think research professors do much better focusing on the senior undergraduate and graduate courses, where staying with the current research is important, and I don't think doing research is important for teaching the basic courses. So, I would love it if they just had teaching professors teach the basic courses and have us focus on the more advanced courses. I think they're moving in that direction. And it's good. Open up more of these teaching positions, that would be great (Dr Menet – Maple University).

This creates the concern that

> I worry that if we have too many teaching fellows, then it'll be seen as an increase in the divide between teaching and research. Teaching [fellows] help because they come in with professional knowledge about how to teach better. I don't like anything that emphasises the division [of] teaching [and] research any more than it already does. So, there's a balance. But I worried if they were teaching fellows than the researchers will be like, ‘oh, well, that [teaching] is their job, they can do the teaching and I am doing research’. And that's not a good idea (Dr Waxmann – Cross University).

According to some professors, ‘I don't think it's a good distinction. I think it's a necessary thing. I think the ideal is we don't have that. And everyone, almost everyone would just be research and teacher’ (Professor Sliderin – Cross University).

It is undeniable that teaching faculties are taking some of the teaching mission from teaching-and-research faculties, however, the details of how teaching faculties are treated and how academics collaborate are the decisive elements of the relationship between teaching and research. Among all the influential factors, expectations from university to teaching faculties are crucial. In other words, the more responsibilities the institutions are looking for from teaching faculties, the more important they are treated in the faculties and departments.

8.4.3 Summary of Teaching and Research Nexus in World-class Universities

Based on the participants’ responses from three universities, institutional strategy influences the teaching and research nexus. The closer integration of teaching and research is encouraged by the concept of research-informed/led/based education. It is considered the differentiation between world-class research universities and other types of universities. Academics mostly supported this idea based on three reasons. First, it exposes students to more advanced knowledge. Second, it provides examples in the class that relate theory to practice. Third, academics suppose that combining teaching and research can also lead to more efficiency in preparing the courses.

In addition, the starting point to encourage the creation of new courses is further realising the potential of academics and enabling their research to be widely shared through teaching. As a result, students are offered more options when

selecting courses.

In engineering studies, there are some shared characteristics between all the universities in this study, including ‘problem-based’, ‘diverse background’, ‘multidisciplinary’ and ‘more opportunities to cooperate with the industry’. Moreover, engineering is an accredited professional that requires a large amount of knowledge and skills. Therefore, it is not always practical to add additional research which can be a time-consuming task. From the perspective of the development of the discipline, there is a trend for engineering studies to become more ‘integrated’. In other words, a multidisciplinary approach to engineering studies is encouraged in this discipline. Basically, the strategy provides undergraduate students with an overall view of all the engineering fields and then teaches one specific area as the major.

Although institutional strategies intend to support the teaching and research nexus, there are challenges in practice. First, the academic ability of undergraduate students is not always sufficient to comprehend certain knowledge and ideas concerning research conducted by academics. Second, although there are encouragement and support for academics to better connect their research interests and teaching through creating courses. In practice, it is more likely that what they teach is not closely linked to their research as the research is usually in the advanced areas, while undergraduate teaching is more about the basics. Furthermore, the research is usually targeting a narrow and detailed perspective, while for undergraduates, it is more important to develop general knowledge in a broader sense. Therefore, the courses that are mostly related to academics’ research are usually optional.

For undergraduate teaching in a world-class university, the concept of ‘research-led’ teaching needs to be shared and recognised, and this is more

likely to be applicable to the integration of teaching and research in the investigated universities. However, a ‘research-led’ approach is not the priority for undergraduates. It is more important to provide opportunities than quantify how much research is referred to when teaching students.

Based on the research in three global research-intensive universities, the influence of institutional strategy on undergraduate teaching is dynamic. It usually has a long-term effect than an immediate influence. Moreover, teaching is an activity that is influenced more by academics’ individual interests and intrinsic motivation. In other words, institutional strategy certainly has an instructing influence on undergraduate teaching but it can be limited. The institutional strategy functions better as a tool for supporting, motivating and recognising teaching, which then influence individual academics to pay more attention to teaching. Because in the world-class university, academics mostly have the basic knowledge and skills of teaching. Together with the training, they are usually capable of delivering quality teaching for undergraduates. A more significant question is whether they would like to spend time and energy improving their teaching.

Furthermore, what the university can do through the institutional strategy to improve teaching is to place an emphasis on teaching when conducting the initial recruitment. At the universities studied in this research, the great majority of the academics prefer research or like teaching as much as research, which means the current population of academics does not have a fundamental preference for teaching. If the university can rebalance the teaching–research emphasis in academic recruitment, the academic staff would be comprised of more teaching-oriented academics.

Based on the accumulated information provided by the participants, there are

several recommendations for the implementation of the institutional strategy for undergraduate teaching. First, the quality of the strategic document, particularly its readability, is surprisingly important and can be the key to whether the academics fully read the documents. Second, if the institutional strategy can be more frequently emphasised in different contexts, then academics would be more aware of it. Concerning its implementation, on the one hand, it is important that there is a good alignment of the institutional strategy and the strategies at the faculty and department levels. This is because, for one, the majority of individual academics are not that familiar with the institutional strategy. Another reason is that the institutional strategy is usually not formulated at a practical level and it has less value for academics in daily practice. On the other hand, 'communication' is often mentioned. In practice, this means 'responsive' for the academics who would like to receive feedback promptly from the different levels of administration and management.

8.5 Summary

This chapter explains how the community of practice is applied to understand institutional strategies' influence on undergraduate teaching. The initial idea of adopting a community of practice originated with universities using words like 'community' and 'environment' frequently when referring to education in their strategic documents. Although no written evidence has indicated that universities are creating communities of practice for teaching and learning[28], each university has inexplicit intentions of using strategies to develop such a community for teaching. This assumption is partially proven by this study's fieldwork.

[28]By the time of completing this thesis, Cross University is using 'community of practice' in its official website for bring together staff with similar roles, experiences and needs to work together, share knowledge, and improve their practice area.

The data and findings were collected and analysed from three world-class universities: Star University in China, Cross University in the UK, and Maple University in Canada. First, all universities have constructed strong values of student-centred learning to guide undergraduate education. Although the strategies do not explicitly name the term ‘student-centred learning’, all the academic and professional staff widely recognise the idea of prioritising students for two primary reasons. On the one hand, the increasing research on higher education as a discipline has widely supported the concept of SoTL. On the other hand, universities in the UK and Canada are charging students high tuition fees. Consequently, Cross and Maple Universities use the term ‘customer’ or ‘consumer’ to describe students, and their ‘satisfaction’ is critical in defining teaching.

A transitioning teacher-student relationship is prevalent at Star, Cross and Maple Universities. Accordingly, student satisfaction has become a critical element in defining teaching, which leads to enhancing the student’s voice. Universities primarily use feedback and evaluations to collect information from students. Overall, academics admit that interacting with students and collecting students’ opinions on teaching is essential. However, empowering students without clear guidelines from the institution confuses and challenges academics regarding teaching practice. On the one hand, academics are hesitating to adopt the results of student surveys because they question how quantitative results can improve teaching. Moreover, evaluations fail to accurately capture information related to teaching quality; instead, results convey entertainment or likeability factors. On the other hand, prioritising students’ needs through evaluation feedback makes academics feel that the university mistrusts them. Thus, although the overarching value of student-centredness aims to improve student's education, in practice, misunderstandings and confusion lead to unwanted results, such as tensions between teachers and students.

In terms of practices, the three universities have adopted strategies for cultivating sub-communities of staff for supporting undergraduate teaching. The communities are presented in the following figure.

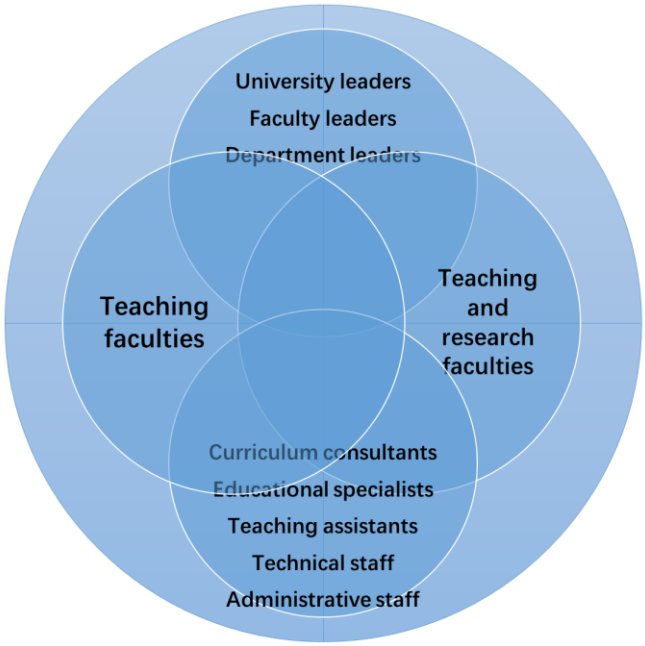

Figure 22. Sub-Communities in the Community of Practice for Enhancing Undergraduate Teaching

First, Star University, Cross University and Maple University have each created an academic track called ‘teaching faculty’, which focuses exclusively on teaching (primarily undergraduate teaching). Star University established the position in response to academics who struggle to accomplish the research achievement criteria. As a result, these instructors can transfer to this teaching stream to focus on teaching instead of research. Cross and Maple Universities have recently established the teaching faculty position to improve teaching. The academics in this position are recruited on purpose with the responsibility of focusing primarily on undergraduate education. Although Cross University and Maple University have created the position with similar intentions, they have different status quo. Owing to the longer development of the teaching track at Maple University, the system parallels the teaching-and-research stream more

closely in terms of academic titles and the tenure and promotion systems (for leadership roles).

With the establishment of a teaching faculty track at each university, one key question has emerged on how teaching faculties interact with teaching-and-research faculties. According to the fieldwork, the interactions fall into three categories: (a) the irrelevant or distant relationship, (b) contempt as ‘second-class’, and (c) cooperation and mutual learning. However, only a cooperative relationship between the two streams can lead to sharing of teaching knowledge, skills and experiences and, therefore, develop teaching as a common institutional goal.

In addition to academic staff, professional staff are vital in promoting teaching and constructing a community for sharing teaching experiences. The professional staff primarily include teaching assistants, administrators for teaching and learning, and technical staff for engineering studies. Their positions in the Figure from closer to the core of the circle to the edge of the circle represent their importance in teaching and learning. Insufficient professional staff is considered the main deficit in teaching support. Moreover. on some occasions, professional staff’s capabilities and suitability do not always fit expectations, decreasing teaching effectiveness and efficiency. However, universities employ curriculum consultants at the institutional level to provide pedagogical advice for all academics. At Maple University, educational specialists at the faculty and department levels were recruited to support the disciplines’ pedagogical development. In general, curriculum-specific support positions prove useful for developing teaching. However, these resources’ functions remain widely unrecognised inside universities.

Moreover, university leaders are considered the facilitators of the community of

practice, and all the research participants recognised the importance of such leaders. Cultivating the teaching community of practice comprises three aspects: (a) the managerial capability of research allocation, (b) the education philosophy of prioritising teaching and (c) the personal teaching efforts made for teaching through instructing students or researching pedagogy and curriculum. The leaders' importance (from greatest to least) in influencing teaching practice begins with the department head, followed by the faculty dean and ends with the principal/provost/president.

As for the practices at the individual level, teacher training remains the most applied approach to improving teaching skills and has grown more standardised and scientific. However, academics' recognition of such training is limited. Academics hold different philosophies on the usefulness of teacher training because little evidence is available to evaluate its effectiveness. In addition, collaborations between academics, both being instructed by the institution and emerging spontaneously from academics, are effectively supporting undergraduate teaching.

Last, this chapter has closely investigated how institutional strategy influences the teaching and research nexus in world-class universities. The institutional strategy can play an influential role in setting and adjusting a campus's functioning; therefore, it provides better research infrastructure but less convenience for teaching.

Each university's institutional strategy emphasises the integration of teaching and research by encouraging research-led teaching for undergraduates. However, in practice, applying research to undergraduate education does not always fit the course design or the expectation for students to develop solid fundamental knowledge.

From the individual perspective, teachers at world-class universities rarely prefer teaching to research; therefore, teaching can hold less priority among them. This observation traces back to the recruitment process where universities use research achievements as the main hiring criteria. Furthermore, the intuitional strategy of creating a teaching track has the potential to steer the teaching and research nexus in an unwanted direction: separating teaching and research faculties by asking teaching faculties to teach while ‘saving’ research academics’ time to exclusively focus on research. Therefore, a more precise explanation must be shared with all academics.

This study’s fieldwork has indicated that academics rarely mention the strategic document or specific strategy. However, the institutional strategy does play a crucial role in establishing an overarching framework for setting priorities. Accordingly, institutional strategy is significantly valuable in cultivating the community of practice for undergraduate teaching.

Chapter 9 Conclusion

Higher education has been undergoing a wide array of changes. Three of the most prominent transitions include prioritising organisational performance, applying managerial and strategic approaches, and addressing teaching quality in mass higher education.

The literature review provided a comprehensive explanation of world-class universities' links to the role and position of global rankings and concerns regarding teaching. Although the idea of a world-class university is conceptually problematic, it has an increasing impact on how universities address their priorities. When higher education's global rankings became popular and marketable, university administrators actively adopted measures to raise their institutions' status. Thus, the ranking systems' indicators have further shaped higher education because institutions have made strategic adjustments to attain and maintain higher rankings. However, whether worldwide rankings can effectively demonstrate the quality of colleges and their academic achievement remains questionable.

The literature review also discussed the adaptation of management concepts and models in higher education. New public management has grown popular in higher education studies due to the increasing importance of efficient and effective resource allocations because of the external and the internal changes. Meanwhile, the debate continues on whether managerial ideas can negatively impact higher education's academic logic, primarily pertaining to collegiality and academic freedom.

This research is a comparative study on how institutional strategy addresses undergraduate teaching in world-class universities in China, the UK and Canada. It provides empirical evidence for the interaction of managerial and

academic logic in the context of globalised higher education. The research is based on the analysis of strategic documents and interviews with academic, administrative and leadership staff at the selected universities.

This study shows that research universities intend to cultivate communities of practice as a response to enhancing undergraduate teaching. The universities included in this study have all developed student-centred learning principles as a shared value to instruct undergraduate education. A transitioning teacher-student relationship is therefore prevalent. However, without explicit guidelines from the institution, academics encounter confusion on how to empower students and conduct instructional practices.

Star University, Cross University, and Maple University have all established staff sub-communities to support undergraduate teaching, each having developed an academic track called ‘teaching faculty’ whose primary responsibility is teaching (mainly undergraduate). Nonetheless, the universities’ starting points and developmental stages are distinct, resulting in different impacts on teaching practices and relationships with teaching-and-research faculties. In addition to academic personnel, professional staff and leadership are essential for encouraging teaching and building a community to exchange teaching experiences.

As for the practices, teacher training remains the most often utilised method for enhancing teaching competencies and has become increasingly standardised and scientifically tested. However, academics’ acknowledgement of such training is relatively low. Accordingly, they hold divergent views on teacher training due to insufficient evaluation of its effectiveness. In addition, cooperation between academics – both university-directed and via academics’ own initiative – appears to successfully assist undergraduate education.

In this chapter, I have grouped the answers to the research questions, which included:

- How do institutional strategies at world-class universities address undergraduate teaching?
- How do institutional strategies affect lecturers in undergraduate teaching at world-class universities?
- What are the implications for the teaching and research nexus at world-class universities?

In addition, I have presented implications for the concept of world-class universities and their relationship to the global ranking systems, the interactions between managerial logic and academic logic in higher education, as well as implications for utilising the community of practice concept and framework in higher education. The last section shares suggestions for further research on institutional strategy and the cultivation of a community of practice for undergraduate education.

9.1 Answers to Research Questions

The objectives of this study are to explore institutional strategies and their approaches to enhancing undergraduate teaching, academics' perceptions and responses towards such strategic decisions, and implications for the teaching and research nexus at world-class universities. In the following sections, I briefly share the research questions' conclusions based on the findings from Star, Cross and Maple Universities.

9.1.1 How do Institutional Strategies at World-Class Universities Address Undergraduate Teaching?

I examined each institution's overarching university strategies and educational strategies in this research. For the university strategy, the institutional missions were quite similar. Institutional strategies all placed great emphasis on teaching. The most prevalent themes include the students, staff, system, curriculum and pedagogy, research, finance and campus. In addition, the institutional strategies of the three universities shared the same level of vision, indicating that the universities seek to improve the world via their actions. Specifically, although world-class universities pay attention to local communities, they primarily strive to address national and global concerns and provide knowledge for humankind. In addition, institutional strategies comprise the universities' unique values, which are usually nationally specific.

As for the educational strategy, the starting point and planning stances were vastly dissimilar. Star University emphasised the curriculum and pedagogy. All criteria were based on the curriculum. In other words, enhancing the curriculum and pedagogy was the key to improving the quality of education. Cross University, however, began with students at its centre, with student needs to direct and to drive the activities. Maple University's educational endeavour was primarily evidence-based. It emphasised the learning outcome as well as the process.

To summarise, institutional strategies from all three universities have recognised and formulated recommendations and regulations for undergraduate teaching. Although the strategic documents were mostly broad and visionary, they clarified the importance of undergraduate education and set directions and priorities.

9.1.2 How do Institutional Strategies Affect Lecturers' Undergraduate Teaching at World-Class Universities?

In general, the majority of staff at both Star University and Maple University were aware of their respective institutional strategies. Cross University exhibited no collective consciousness; rather, each faculty member held their distinct viewpoints. At each university, faculty members' attitudes towards institutional methods varied dramatically. Some academics at Star University opposed the university's strategy, even though dissent at Star University was often modest. Attitudes at Cross University were polarised, with some academics supporting the importance and expanding use of the institution's strategy. In contrast, others considered the university's development and execution of strategies to be nonsensical. Although some Maple University faculty believed the university still has its issues, the overall consensus was positive. Regardless of the specific strategic decisions, a majority of interviewees in this research acknowledged that institutional strategy affects teaching and learning.

I applied the categorisation of the organisational dimension (relating to the operational environment) and individual dimension (referring to teaching philosophy) to classify the significant aspects of how academics view the institutional strategy with regard to undergraduate education. The external environment refers to the national backdrop, including cultural, political and economic influences. The internal environment relates to the universities' organisational and management structure.

For the external environment, universities were influenced by the national ideology and expectations towards higher education, respectively. In China, higher education is considered the main approach to achieving national goals. Therefore, Star University is relatively centralised and significantly supported

by the government. In addition, there is a shared value that studying is the highest pursuit for individuals. As a result, students and their parents' expectations for higher education are not only for better employment because 'studying at university' per se can be considered a great achievement. As for Cross University and Maple University, the impact of the government was less dominant. Student fees were the main revenue for the universities and the value of degrees was defined by the labour market and employability. From this perspective, it explains why the idea of assuming undergraduate education as a service with an emphasis on the value of money at Cross University and Maple University was more acknowledged and recognised than at Star University by academics. The relationship between the university and the government can be dynamic in terms of the degree of centralisation. Financially, the government may use the funding scheme to leverage its impact on higher education. Moreover, it relates to the political systems and societal functions and roles of higher education.

As for the internal environment, the main units for implanting academic practices were faculty and department at three universities. There were debates on whether there should be fewer or more levels of management in the university. However, faculty members who had opposite ideas consider their approaches a means to increase organisational effectiveness and efficiency. This can be the result of unclear organisational structure that academics deem difficult to find the right person or office when it comes to teaching-related affairs. For academics, junior or senior, if they did not have any administration or leadership responsibilities, they usually did not have an overview of how the university management is structured. Therefore, instead of having either more or fewer layers of management, it would be more helpful if the university can better explain the structure and clarify the corresponding offices and personnel when it comes to teaching practices.

Teaching philosophy exhibits more similarities than differences among academics from various national origins. It was not surprising that faculty members from different countries share more in common because of their academic identity as engineering academics in research-intensive universities. In general, academics emphasised the significance of teaching and view undergraduate education as ‘student learning’ rather than ‘teaching’. One topic of contention was whether teaching ability is innate or acquired. Accordingly, scholars with opposing viewpoints held divergent ideas regarding the effect and influence of teacher training and institutional support for education.

9.1.3 What are the Implications for the Teaching and Research Nexus at World-Class Universities?

Institutional strategy impacts the teaching and research nexus to a considerable degree. First, institutional strategies have explicitly strengthened the relationship between teaching and research, particularly at the undergraduate level. This result is largely due to the widespread implementation of research-informed, research-led and research-based education. In addition, universities tend to encourage and foster the development of new courses with a stronger connection to academics’ research interests. Thus, this approach creates opportunities for academics to disseminate their findings through teaching.

In addition, the rise of teaching tracks affects the teaching and research nexus. Teaching faculties are indisputably taking a portion of teaching responsibilities for teaching-and-research faculties. Nonetheless, how teaching faculties are regarded and how academics interact are the determining factors in the teaching and research nexus. Among all the significant criteria, teaching faculties felt that universities’ expectations for them are the most important. In

other words, teaching faculties were accorded more importance in faculties and departments in proportion to the institutions' expectations.

Although institutional strategies attempt to foster the teaching and research nexus, obstacles exist in practice. First, the academic aptitude of undergraduate students is not always sufficient for understanding specific research-related knowledge. Second, although institutions encourage and support academics in creating courses that connect their research interests and teaching, academics more often teach a curriculum that is not closely related to their research. This condition arises because their research is typically advanced, whereas undergraduate education focuses on the fundamentals. In addition, research typically focuses on a limited and specific perspective, whereas acquiring general knowledge in a broader sense proves essential for undergraduates.

9.2 Implications

Referring to the discussion in the previous section, I have identified three significant implications: the discussion of the world-class university and the interactions with global ranking; interconnections of managerial logic and academic logic in terms of the utilisation of institutional strategy for academic activities; and universities' intention of cultivating communities of practice for undergraduate teaching.

9.2.1 World-Class University and Global Rankings

In *Section 2.1 World-Class University*, I explained that the term 'world-class university' is widely used in government policies and university strategies but is not part of academic terminology. Instead, the label 'world-class university' is

devoid of any conceptual substance, and it serves more as an advertising slogan and expectation for universities to become more competitive and attract students and academics in the global market. Overall, world-class universities are research dominant, which does not comprehensively represent all functions of higher education, especially the value of teaching. According to the responses from academics, leaders and administrators at Star University, Cross University and Maple University, there was a shared perception of the world-class university that such a university can provide quality teaching, impactful research and student support through sufficient resources. Another key point is the international and diverse environment that the world-class university constructs. A world-class university also has strong networking, both inside and outside of the campus, which provides vast collaboration opportunities.

As observed from the fieldwork, although the idea of world-class universities and global rankings have been promoted significantly by the Academic Ranking of World Universities (ARWU) in China since 2003 and the *Notice of the State Council on Issuing the Overall Plan for Co[-]ordinately Advancing the Construction of World First-class Universities and First-class Disciplines* issued by State Council of the People's Republic of China in 2015, faculty members from Star University mostly considered such ideas have become prosperous owing to the marketisation of higher education in western countries (Europe and North America in particular) and the dominance of the western model of higher education (research-intensive university in particular). In addition, academics, especially the senior ones, expressed that they had to get used to the transition that the university wants to be more research-intensive than it used to be. While for faculty members from Cross University and Maple University, academics tended to acknowledge the impact of the world-class university and global rankings. More of their criticism was on the

incomprehensiveness of this concept and the adaptation of metrics and indicators.

‘World-class university’ is not a fixed term with a universal agreement; rather, the focus and definition are subject to change. Moreover, the description of a world-class university is usually narrow and vague, offering limited value to academic practices. However, the most significant deficiency of such a term is its lack of sufficient focus on teaching.

Although academics critiqued the term world-class university for its low academic relevance in higher education research, its relationship with global ranking systems is more problematic. This thesis does not oppose the utilisation of global rankings but maintains that the rankings should reflect the value of developing higher education. I also contend that the significance of global rankings should be diminished when defining and differentiating colleges – particularly in terms of teaching quality, which is exceedingly complicated and should not be represented by simple figures. Using a scoring mechanism to rank universities based on the totals is illogical. The reasons for higher or lower ratings can vary greatly, and the basic ‘high’ or ‘low’ rank does not demonstrate nor explain these variances.

This thesis proposes that universities using the term ‘world-class university’ should provide clearer descriptions of what they can offer to all stakeholders. Students and their parents need more contextualised explanations from the university to determine if the institution’s emphasis and values meet their expectations. Academics also must comprehend the university’s goals and expectations for their career development. Conversely, a greater emphasis on teaching is required when defining a world-class university. As global rankings would strengthen research dominance, one approach is to separate what

constitutes world-class universities and the areas the rankings evaluate. Governments and universities can define their own world-class status in relation to the global and national demand for higher education instead of referring closely to the established ranking systems.

This thesis addresses various issues with global rankings. As stated before, global rankings are valuable for presenting prestigious universities in different countries and regions. They provide students, parents and academics with accessible information for a quick overview of the universities, especially useful for those considering studying and working abroad. However, rankings can generate unnecessary and irrational competition among universities, owing to their nature of limited focus and biased methodology. The question is how to validate the rankings is more of an emerging question than criticism.

Suggestions were given by research participants and sorted out by me that the ranking system can be improved by giving up the ranks: namely, the numerical arrangement. Instead, rankings should categorise universities based on their type (for example, research-intensive) and then apply a system that places universities into several tiers instead of numbers. Moreover, rankings need to include more descriptions in their methodologies, especially to highlight each university's advantages and specialities, thus providing more valuable information about academic practices. Likewise, ranking the university as a whole is not as reference-worthy as rating individual disciplines. Understandably, university leaders and governments are more focused on the institution's ranking. However, for students and parents, academics, and the labour markets, learning the differences between the same disciplines at various universities leads to understanding what they can expect from each programme and the department.

9.2.2 Management in Higher Education – Not Always the Bad Guy

In *Section 2.2. Managerial Logic and Academic Logic of Higher Education*, I presented the literature on managerial logic and academic logic in higher education studies, focusing on adopting new public management and teaching concepts and approaches that concern learning and research. The trend of referring to management in private sectors has become prevalent. However, scholars provided numerous critiques of the negative impact of adopting management instruments in higher education, primarily on collegiality and academic freedom.

This thesis, as a research output in the academic field of managerial logic and academic logic interconnection, recommends that higher education employs more concepts from new public management: for example, accountabilities, resource allocation, and performance and evaluation. Nonetheless, this research demonstrates that higher education management is not necessarily detrimental to teaching and learning. University staff dislike when managerial tactics are employed to restrict academics' behaviour or establish rigid performance benchmarks. However, a greater number of academic and administrative personnel appreciate it when universities offer clear explanations of their resource-distribution demands.

This argument may be contested by scholars who believed that using such management approaches interferes with academics' academic autonomy. However, according to field research, administrative personnel and leaders from all three case study universities strongly recognise university management, and they support the management mechanism by creating and implementing strategic university decisions. In other words, managerial logic is not only strengthened by adopting management concepts and approaches but also by adhering to managerial responsibilities. Additionally, the fieldwork revealed that

more early-career academics recognised this tendency that universities are more managed; they viewed this as the status quo of higher education's evolution, with fewer critiqued regarding the negative influence on their academic practices. This perspective can relate to their experience of achieving their PhD degrees in such an environment. Most grew accustomed to it and felt comfortable with the universities' approaches.

Therefore, the argument arises that university management does not necessarily impede academic success. A balance between university control and support is essential for varied academic attitudes and responses towards the university's management. In *Section 2.2.1 New Public Management in Higher Education*, I differentiated hard management and soft management, as well as active management and passive management. In this way, universities can diminish hard management and active management at a certain level by being softer and more passive. In addition, universities are expected to show more support to academics when applying strategies that the staff appreciate. For example, rather than imposing modern teaching techniques on all disciplines and courses, universities can support the academics' design of courses by providing the technology that the academics feel is appropriate and suitable. Moreover, universities can encourage faculty members to devote more attention to teaching by providing platforms for innovation and collaboration instead of overemphasising the significance of metrics or indicators including but not limited to student survey results.

This idea leads to the next implication, namely, why and how universities might adopt the community of practice concept and framework to enhance academic practices.

9.2.3 Cultivating Communities of Practice – What Universities Should and Should Not Do

In this study, although academics rarely referred to the strategic document or specific approach for teaching and learning, the strategy played a critical function in defining an overall prioritisation. In addition, institutional strategy can contribute greatly to developing communities of practice for undergraduate teaching. This thesis addresses how universities may improve their education by developing communities of practice. Based on the strategic documents and interviews with staff from all three universities, these institutions intended to provide a supportive environment and cultivate a community for education, either tacitly or overtly. This section further discusses the interactions of various sub-communities in world-class universities for enhancing undergraduate education. In addition, I explain what universities can do to foster such a community of practice and the potential issues that can drive the unwanted direction. For example, utilising communities of practice as another managing tool instead of organic communication and cooperation among university staff can lead to further centralisation and limitation of academics' choices in education.

To start, the research findings suggest that a sub-community consisting of teaching fellows is crucial for providing teaching skills and exchanging teaching experiences within the community of practice for enhancing undergraduate education. However, teaching faculties are generally not perceived as equal to teaching-and-research faculties in status yet, which means their potential and value for enhancing teaching remains unacknowledged. Therefore, universities need to put more effort into developing and formalising this newly emerging academic track.

This fieldwork implied that teaching faculties as an academic position with

career progression lacks a clear formulation. Even at Maple University, which has made a great effort to formalise the teaching-faculty position, some faculty members did not understand the teaching track's responsibilities and importance. In general, a teaching fellow is at an early stage of formalisation as an academic position. Universities do not recognise the position for long-term development but rather compensate for the shortage of academic staff to educate undergraduates (due to higher education's massification). In contrast, the teaching track is not comparable to the teaching-and-research position in terms of salary and academic status.

Nevertheless, this study has also revealed that with more teaching faculties recruited, more collaboration between teaching faculties and teaching-and-research faculties emerges. Wenger (1999: 105) illustrated 'boundary objects' (artefacts, documents, terms, concepts, and other forms of reification around which communities of practice can organise their interconnections) and 'brokerage' (connections provided by people who can introduce elements of one practice into another) as two forms of connections among communities of practice. In this study, teaching faculties and teaching-and-research faculties are two sub-communities. Although the boundary between the two sub-communities is vague because teaching is widely recognised as the primary responsibility that the vast majority of academic staff share, some members from each sub-community can be considered the 'brokers' who encourage the interactions between the sub-communities of teaching faculties and teaching-and-research faculties.

Wenger (1999) also illustrated the idea of core membership and peripheral membership in communities of practice. Even though this research is investigating teaching, it does not mean that teaching-and-research academics are necessarily the peripheral members of such a community of practice. On

the contrary, according to the current status of teaching faculty in academia, which has less legitimacy in directing academic practices, teaching-and-research faculties may be more influential and at the core of such a community of practice for enhancing undergraduate education.

This research aims to provide suggestions for enhancing undergraduate teaching, so brokering towards research is not discussed here. In practice, teaching faculties that actively seek opportunities to share their teaching skills and experiences are brokers trying to extend the teaching sub-community boundary. In addition, teaching-and-research faculties that appreciate, collaborate, and take the initiative to learn from teaching academics are brokering the boundary and providing a participative connection. These individuals have the experience of multi-membership in both sub-communities, potentially exerting more influence regarding the importance of teaching faculties in cultivating the community of practice to enhance undergraduate education.

To summarise, universities must make clear expectations for teaching faculties and formalise their associated treatment, including but not limited to salaries and respect. Furthermore, universities must establish a consensus among all university staff that teaching faculties are beneficial to the university, particularly teaching.

This thesis also aims to convey that undergraduate teaching is not solely the responsibility of academics but also of professional staff, including administrative staff, educational experts, and university leaders from departments, faculties and central units. All these staff positions are involved in undergraduate education from a strategic perspective to daily practice. Universities must recognise that cultivating a community of practice for

undergraduate teaching is the responsibility of all university personnel. The process of cultivating a community of practice is continual, and it may take a considerable amount of time to notice progress. Therefore, universities must consistently develop such communities of practice to promote undergraduate education in a sustainable manner.

Apart from the practical deficiencies, there are potential issues with how universities perceive communities of practice and the risk of misusing this framework. In general, one of the guiding principles of the community of practice is voluntariness, and it is preferable to encourage participants to be voluntary so that communities of practice can thrive and grow by producing excitement, relevance, and value to attract and engage members (Wenger, McDermott and Snyder, 2002). Because participation in the community of practice is voluntary, individuals of this group are independently willing to share tactic knowledge and experiences. In contrast, compulsory participation carries the risk of diminishing the value of such communities to merely survive going to another meeting, which is likely to deflate the very social energy that makes healthy communities of practice places of meaningful learning. In addition, the community of practice is described as a bottom-up approach emerging from the field and reflecting communication and collaboration among members.

However, despite a few university faculties wishing to communicate and collaborate with their peers, the majority of practices are directed by university strategies that include standard regulations. For example, at Star University, faculty members, no matter what job titles they have, were requested by the university to provide undergraduate courses. While the strict regulation was successfully implemented, the vast majority of the academics were participating in undergraduate teaching. However, such mandatory requirements have not proved to be effective in improving the quality but are more about an indicator

to fill a certain amount of time. As for Cross University and Maple University, the issue was the emphasis on students' evaluations that academics felt were being pushed to meet students' expectations instead of sustaining their professional judgement and experiences for the courses.

The previous section has highlighted that teaching is essentially attracting more attention to practice, whereas institutional strategies have focused on guiding and instructing – not creating an environment for members to voluntarily enhance undergraduate teaching.

Maple University has shown signs of constructing a community of practice voluntarily, after practising for a certain number of years, as the institutional strategy directs. However, the transition remains in the early stages and most of the activities are significantly instructed by the strategic decisions of the university. At Cross University, the whole idea of enhancing teaching for undergraduates emerged in a relatively short period of time. Numerous actions and plans have been implemented but still without a specific structure or pattern. Star University's approach to a community of practice for improving undergraduate teaching primarily relies on the traditional concept of cultivating students as the main purpose of education. In addition, the institutional strategy has set certain regulations for academics to participate in undergraduate teaching and raise awareness of the importance of undergraduate teaching.

Research is typically dominant at world-class universities – especially due to the pull of global rankings. Therefore, the intention of having a voluntary community of practice to improve teaching quality has a different starting point. As the fieldwork data in the previous sections have illustrated, the key to developing a community of practice should be bottom-up. In addition, the intention to develop a community of practice can reinforce academic freedom

and decision-making autonomy of academics in the teaching practice.

Moreover, when the data on institutional strategy and interviews were collected (approximately from 2018 to 2020), the term ‘community of practice’ did not appear in any official documents from the university, nor was it mentioned by participants from three universities. Universities were more likely to implicitly express the intention of creating a wider environment to encourage academics to pay more attention to undergraduate education. In more recent times, universities started to use this particular term on their websites. For example, Star University uses this idea in its students’ union for postgraduates; Cross University applies it to professional staff who share similar practice areas; and Maple University illustrates this concept in its centre for teaching, learning and technology, and refers to Wenger’s (1999) study as the core value in particular. In other words, although there are different stages and areas that universities are referring to as the community of practice, it is apparent that universities are becoming more conscious and proactive in adopting this framework into their practices.

According to Wenger, McDermott and Snyder (2002), the stages of community development are divided into potential, coalescing, maturing, stewardship and transformation. This is illustrated as follows in Figure 23.

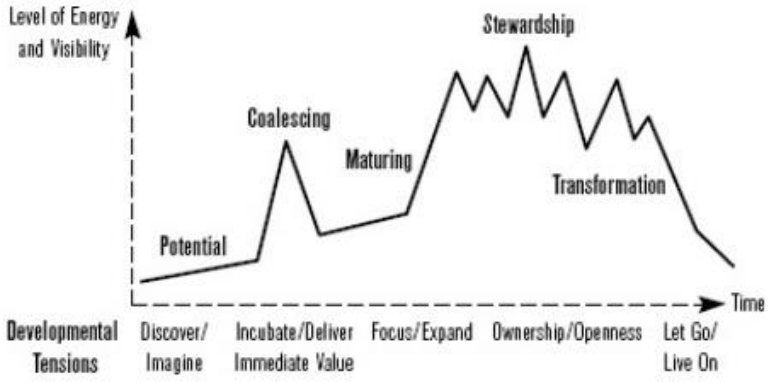

Figure 23. Stages of Community Development (Wenger, McDermott and Snyder, 2002: 69)

At the moment, Star University is more at the potential stage that already comprises some basic elements of a developed community and has the full potential of becoming one (Wenger et al., 2002). There are both institutional strategies and loose networks that direct academics' attention to undergraduate teaching. The wide recognition of the importance of education is the common ground for cultivating such a community of practice. At this stage, the community coordinator holds onto a critical role, which refers to a community member who helps the community focus on its domain, maintain relationships, and develop its practice (Wenger et al., 2002). In other words, the community coordinator undertakes the responsibility of demanding the vitality of its leadership.

Cross University is at the stage of coalescing. It means that the university has a good understanding of what already exists with a vision of where it can go (Wenger et al., 2002), which is proved by the strategic decisions of having the teaching stream and using the framework for developing other aspects of the university other than teaching and learning. At this stage, the university needs to endeavour to encourage members to find value in participating in such a community of practice. In other words, convincing academics to acknowledge the importance of education and be willing to spontaneously work towards the goal of enhancing undergraduate teaching. In addition, Cross University is recruiting more teaching faculties, which can be considered as the expansion happens in the maturing stage. However, the value of such a community of practice for undergraduate teaching through having more teaching faculties at Cross University is not entirely clear yet. Therefore, it is not at the maturing stage.

Maple University seems to be the one that is in the maturing stage owing to a

long time of development. The university has achieved more progress due to the formalisation of the teaching track and the wide appreciation of such an academic position for enhancing undergraduate teaching. In the maturation stage, the community of practice faces shifts from establishing value to clarifying the community's focus, role and boundaries (Wenger, McDermott and Snyder, 2002). According to the fieldwork, Maple University has made efforts to enhance the influences of the sub-community of teaching faculties through broadening the boundary and interacting with other sub-communities, including teaching-and-research faculties and professional staff. Teaching faculties are promoted to senior management positions to develop a stronger presence in undergraduate education.

However, by combining the principles of communities of practice being voluntary and organic, the question arises as to whether universities are employing this framework while ignoring the core value and utilising the same management tactics as in the past. In other words, universities' understanding of the function and value of communities of practice in enhancing teaching and relevant academic practices is not yet convincing. From a structural standpoint, there may be a middle ground where universities can encourage their staff to construct academic committees. All of the universities in this study have one or more academic committees, but their positions in governance and responsibilities in decision-making are not explicitly defined. Furthermore, rather than developing organically from the bottom up, they are either constructed following national policies (Star University) or under the guidance of university administration (Cross University and Maple University). Still, committees are usually comprised of people from different positions and disciplines. This can be seen as a potential model for how communities of practice could work in higher education.

Improving undergraduate teaching through institutional strategy and cultivating the community of practice for teaching each provides an ideal context for developing, sharing and stewarding knowledge in organisations (Chua, 2006). In addition, communities of practice provide value through their abilities to develop new strategies as well as implement existing ones (Wenger et al., 2002, p. 17). Wenger, McDermott and Snyder (2002, p. 2) offered seven principles to cultivate communities of practice:

- Design for evolution
- Open a dialogue between inside and outside perspectives
- Invite different levels of participation
- Develop both public and private community spaces
- Focus on value
- Combine familiarity and excitement
- Create a rhythm for the community

These principles acknowledge that communities of practice are composed of human beings who change and evolve. They create a space where different points of view can be heard and discussed in various situations. The focus on value is critical because the teaching value that academics bring to their institution is often overshadowed by research and researchers. Finally, the familiarity and rhythm of a mature community of practice allow for candid discussions, as well as the establishment of enduring relationships between members of that community (Wenger and Wenger-Trayner, 2015). Although these principles can appear vague and unclear when applying them, they also convey a clear message that the overall culture aims to achieve the institutional goals. Therefore, institutional strategy needs to focus on these principles.

Moreover, discipline and institution both play an essential role in developing the academic identity (Clark 1987; Austin 1990; Henkel 2000; Becher & Trowler

2001; Neumann 2001). The discipline is regarded as the central organising vehicle within higher education and belongs to a 'disciplinary community [that] involves a sense of identity and personal commitment' (Becher & Trowler 2001, p. 47). The discipline is the central context within which 'academics construct their identities, values, the knowledge base of their work, their modes of working and their self-esteem' (Henkel 2000, p. 22) and the place where 'a sense of academic identity flourishes' (Kogan 2000, p. 209). The relationship between teaching and research within the discipline also influences the nature of academic work and, consequently, academic identity (Clark 1987; Shulman & Hutchings, 1994; Jenkins 2000; Neumann 2001; Jenkins et al. 2003). In most disciplines, teaching is viewed as a generic activity that lies 'on top of' the 'real academic work', namely research, and is 'unconnected with the disciplinary community at the heart of being an academic' (Neumann 2001, p. 144). Whereas research usually involves engagement with an academic community, teaching has been characterised as an individual private affair (Clark 1987; Shulman & Hutchings, 1994). In other words, the institutional strategy can either consider disciplinary differences or encourage emerging practices from the department and discipline levels.

9.3 Limitation and Recommendations for Further Studies

Research on institutional strategy and undergraduate teaching remains ripe for further investigation. Three perspectives require further studies, including theoretical, methodological and empirical.

Theoretically, the framework of community practice has an emphasis on the identity and identification of members (Wenger, 1999). However, this research only has a light touch but not deeply investigated how academic identity is formed for the community of practice for undergraduate education because this research was designed in an inductive manner and the concept of communities

of practice emerged after data analysis. Therefore, further studies can use a deductive approach by applying the concept of identity in communities of practice to provide more theoretical value to the formation of academic identity in relation to institutional strategy.

Methodologically, as a qualitative study, this research successfully details how academics perceive institutional strategy, as well as categorising their various attitudes. However, quantitative methods can be used to obtain and analyse data from participants' responses (for example, a Likert scale). In addition, quantitative data can be analysed concerning participants' demographic backgrounds. Such data can provide additional information by comparing various groups based on gender, age, marital status, educational background, job title, mobility experience and teaching experience. Moreover, cultivating communities of practice takes time (Wenger, 1999). In other words, longitudinal methods can be applied to better investigate the development of communities of practices.

Empirically, this comparative study was undertaken in Chinese, British and Canadian contexts because their higher education systems are representative of their respective regions. However, higher education has a variety of responsibilities and functions, which can vary significantly in different national contexts. To comprehend the institutional strategy and undergraduate education in the context of internationalisation and globalisation in higher education, researchers should explore cases from other nations and regions.

In addition, this study addressed the research topic of institutional strategy and undergraduate education at world-class universities, which are usually research-dominant. Future research approaches can be modified and applied to different types of universities: for example, community colleges and

institutions with an emphasis on teaching and learning. Understanding how different types of universities approach undergraduate education and how academics perceive and react to these strategic decisions can also be instructive and provide a comprehensive picture of the development of higher education systems.

Moreover, this study investigated the engineering disciplines at all three universities and has provided a valuable reference for this academic field. However, teaching and learning in various disciplines differ significantly. Therefore, additional research is required to demonstrate how academic and administrative personnel perceive this research topic from other disciplinary viewpoints.

Additionally, this thesis presented how undergraduate teaching is perceived in world-class universities in three countries. Because of the limitation of time, I did not investigate the diversity in the classroom, which is one of the characteristics of world-class universities that are influenced by and strive for internationalisation. Therefore, it can be an important area for further investigation because the quality of teaching is also related to the level of diversity of the class and the according strategy for different students' demands.

Finally, the COVID-19 pandemic has significantly changed the pattern of higher education. For example, online learning and hybrid learning. However, this research was conducted before and at the very early stage of COVID-19, therefore, there is no empirical data on how the pandemic impacted undergraduate teaching. It is not clear yet whether the pandemic would permanently change the teaching method to hybrid and what implications can be for defining quality teaching for undergraduates. In addition, further investigation is needed on how universities remain the communication and

collaboration centres among university staff to keep the cultivation of the community of practice for undergraduate teaching through online platforms, in particular the alignment and gap between how the institutional strategies address and what happens in the practice.

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Appendix

Appendix 1. Interview Guide for Academic staff (lecturers including faculty/departmental leader)

Section 1. Demographic information

1. Name:
2. Birth year:
3. Gender:
4. Job title:
5. Contract type:
6. Family situation:

Section 2. Academic background and career journey

1. Could you please briefly introduce your academic background?
2. Have you worked at other organisations except universities?
3. How long have you been teaching in university?
4. Is the current university the only one you worked at as a lecturer? If not, please introduce your previous working experience.

Section 3. World-class university and institutional strategy

1. What is your understanding towards the concept of World-class University?

Section 4. Teaching belief

1. Could you please briefly introduce your job and role?
2. What does teaching mean to you?
3. What is your understanding of a good teaching and good teacher?
4. How do student's opinions influence your teaching?
5. How do you think about the student survey?
6. Do you have any obstacle that hinders you from applying your design of the class?

Section 5. Institutional strategy and teaching

1. Do you know any institutional strategies?

2. What is your understanding and attitude towards the institutional strategy?
3. To what extent do you participate in the process of formulating or implementing strategy?
4. What's your approaches of knowing the institutional strategy?
5. To what extent do you think there are difference between what the strategic documents say and what actually happens? Why?
6. The influence of institutional strategy on undergraduate teaching
    6.1 Do you know any actions or decisions that the university takes to support and improve undergraduate teaching?
    6.2 Do you know how the university utilise resources to support and improve undergraduate teaching? (physical/financial/human resource)
    6.3 Do you think the institutional strategy may influence your teaching?
    6.4 Do you think there are any important elements that make the strategy effective?
7. University specific
    7.1 How do you think about the culture and environment of the university?
    7.2 How do you think about the collaboration with external partners and alumni?
    7.3 How do you think about the relationship between two campuses?

Section 6. Teaching and research

1. Do you personally prefer teaching or research?
2. How do you perceive the relationship between teaching and research?
3. Have you experienced any conflicts between research and teaching? What decisions you may make when you experience the conflicts?
4. What elements do you think may influence your decisions and practices when there may be conflicts between teaching and research? How?

Section 7. In-campus activities and out-campus activities

1. How do you allocate your time and energy on teaching, research, and administration/management?
2. Do you have any academic work apart from that inside the campus?

Appendix 2. Interview Guide for Administrative Staff

Section 1. Demographic information

1. Name (anonymised):
2. Gender:
3. Job title:

Section 2. Job and office description

1. Please describe the function and structure of the office you are in.
2. Please describe your position and responsibilities.

Section 3. World-class university and institutional strategy

1. Do you know any institutional strategies?
2. What is your understanding and attitude towards the institutional strategy?
3. To what extent do you participate in the process of formulating or implementing strategy?
4. What's your approaches of knowing the institutional strategy?
5. To what extent do you think there are difference between what the strategic documents say and what actually happens? Why?
6. To what extent do you think the institutional strategy may influence your daily work?
7. To what extent do you think the institutional strategy may influence your communication or cooperation with faculty members?