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Adaptation of Western Pedagogy in Chinese Higher Education: A Case Study of Project-Based Learning

A thesis submitted in partial fulfilment of the requirements of Durham University for the degree of Doctor of Philosophy in Education

By Jiarui Li

March 2025

Abstract

Recent decades have witnessed increasing attempts from higher education institutions (HEIs) worldwide, including those in China, to see to cultivation of both learner hard skills like cognitive knowledge (Vogler et al., 2018) and soft skills like teamwork, effective communication and networking skills (Ragusa et al., 2022). The latter are however hard to achieve via the entrenched, didactic form of instruction (Alorda et al., 2011).

Amid the pressing need for rising beyond the long-standing, traditional teacher-centredness in Chinese higher education (HE), a set of western pedagogies have been deemed favourable by some Chinese HE scholars, for instance Project-based-learning (PjBL) (e.g., Chen & Yang, 2019; Zhang & Ma, 2023) which features learner autonomy, constructive investigations, collaboration, communication and self-directed learning within authentic practices (Kokotsaki et al., 2016) and has attracted attention in Chinese universities. The scarcity of PjBL-relevant literature domestically is justification for more empirical work to appreciate the implementation of PjBL across multiple institutional, departmental and classroom contexts in China.

This thesis presents an analysis of two qualitative case studies of two lecturers' undertaking PjBL as a module pedagogy at two HEIs in southwestern China. In light of the Chinese HE context, the study utilises the perspectives of complexity theory and cultural scripts for teaching, to understand the complexity of lecturers' experimentation with PjBL and the surrounding context, guided by an interpretive, non-participatory approach. The methods of data collection include the researcher's weekly observations of the two modules featuring PjBL and other modules within the same department, examination of documents of departmental/institutional policies and regulations relating to teaching and learning activities and semi-structured interviews with the lecturers, their managers and members from the same module group/team, over a longitudinal time frame.

The findings indicate that the lecturers' adaptation of PjBL are subject to their

educational beliefs and the cultures of their situated context, further dividable into classroom, departmental, and institutional levels. Their education beliefs present a complex, co-adaptive system nested within other broader, macro systems. Also, their beliefs as a system comprises different interactive components, which complicate the nature of their belief systems and affect their subsequent practices with PjBL on the ground. The use of PjBL in Chinese HE by the lecturers is characterised by an ongoing set of epistemological conflicts and choices between learner-centredness, experiential learning as advocated by PjBL, and teacher-centric instruction prevalent in Chinese HE. As a result, the lecturers, at the forefront of pedagogic innovation, resort to an 'eclectic approach' featuring both given tenets of PjBL and that of traditional, didactic instruction. By shedding empirical light on the complexity inherent in pedagogical choices/practices of lecturers, who, as active agents reconcile a given western pedagogy with the local context, this thesis generates implications concerning pedagogic innovation in Chinese HE.

Acknowledgements

I would like to dedicate this thesis to my supervisor, Dr. Nicola Reimann, for her constant encouragement and genuine interest in my study. I believe she would be very happy to see my completion of the thesis.

My enormous gratitude goes to my supervisor, Prof. Catherine Montgomery, for her constructive feedback throughout my thesis writing. I could not have completed this thesis without her guidance. Her support has walked with me along this rewarding pathway to here and now. I want to celebrate the inspiration I found in the meetings we had and so many 'eureka' moments they brought to my thesis writing.

I feel indebted to my parents, relatives and friends, who have supported me throughout the ups and downs of the PhD journey. Their faith and love in me allow me to see the world afresh with a different lens.

And, for sure, my gratitude goes to all the participants who were willing to partake in my research, especially the lecturers implementing PjBL. They have come to show me the building of educators dedicated to the holistic development of learners.

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Chapter One: Introduction

This thesis seeks to enrich understanding of the ways project-based learning (PjBL) is adapted in Chinese higher education (HE). PjBL is derived from Dewey's (1910) philosophy of "learning by doing" and finds its theoretical roots in experiential learning and constructive learning (Krajcik & Shin, 2014).

Given its emphasis on problem-solving and integration of multiple learning methods, PjBL is understood to be learner-centric in nature (Land & Zembal-Saul, 2003; Bozic et al., 2018). Though PjBL has been widely used across multiple educational phases at a global level, it was firstly introduced to mainland China in the field of vocational education only after the late 1990s and gained later traction in basic education and HE in the 21st century (Lin et al., 2023). Wider application of PjBL was fuelled by the launch of the National Medium-and Long Reform and Development Plan (2010–2020). That said, PjBL as a learner-centric pedagogy was understood to be conducive to student development acquisition of knowledge, enrichment of social practice and also development of other transferable skills like communication, critical thinking and collaboration (Zhang et al., 2018). Such recognition of PjBL was naturally translated into a growing body of scholarship on PjBL (Chu et al., 2017). Nevertheless, there is scant teacher-centric research on PjBL application in Chinese HE.

The central aim of the study, therefore, is to fill this gap by looking explicitly at lecturer adaptation of PjBL in Chinese HE, from the conceptual lens of Cultural Scripts for Teaching and Complexity Theory. Here, the focus is on lecturers' adaptation of PjBL as a relatively innovative pedagogy, as woven into the interplay between their beliefs and practices as two complex, dynamic and context-sensitive systems. Building upon Thelen and Smith (1994), CT offers a robust lens to further our understanding of teacher beliefs and practices by acknowledging the co-adaptive relationship between teacher cognition and its social context. Specific to this study,

CT contributes to reveal how lecturers conceptualise and adapt PjBL, as they perceive and respond to aspects in their social contexts.

To this end, this study carries significance in regard to:

(1) Developing an understanding of the interactions between the lecturers' beliefs and practices as they experiment with PjBL;

(2) Developing a conceptual framework which sheds light on the complexities of adapting PjBL as a Western pedagogy: perceived instructional potential constraints of PjBL by lecturers, dissonances between PjBL and the taken-for-granted instructional approaches at the local level, and the alignments and misalignments between the lecturers' professed beliefs about PjBL and their instructional practices in natural classroom settings. The mediating role of the multi-layered context the lecturers find themselves in, e.g., Chinese HE, their institutional/departmental contexts, and classroom contexts becomes discernable, especially in relation to the dissonances between lecturer beliefs and practices.

(3) Developing a conceptual framework to account for the complex interactions between beliefs and practices, alongside the mediating role of the context. Here the Cultural Scripts for teaching serves a workable lens to unpick "what sits in the background", namely the implicit, taken-for-granted instructional practices at micro(classroom) and meso (department/institutional) levels. In so doing it focuses on the contextual complexities surrounding the lecturers' adaptation of PjBL, namely an epistemological choice between "what looks promising" and "what truly works".

This chapter sets to briefly introduce the background to the study, the research questions and their underlying rationale. The last section deals with the structure of the whole thesis.

1.1 Background to the study

1.1.1 General background to Chinese HE system

The modern Chinese higher education (HE) system has largely been shaped by Western influences, beginning in the early 1900s with the Japanese model, followed by the American model after 1919. After the establishment of the People's Republic of China in 1949, the Soviet Union model became dominant, leading to the nationalisation of HE institutions and the restructuring of the system to align with Soviet principles (Yang, 2005). This centralisation has persisted, with the government playing a key role in directing HE to meet economic and social development goals, often prioritising engineering and scientific education over humanities. This imbalance prompted reforms in the 1980s, including the consolidation of smaller institutions into larger universities and expanded undergraduate recruitment, though the centralised structure remained intact (Yang, 2005).

Chinese HE is deeply rooted in its historical and cultural context, with origins tied to the imperial examination system, which emphasised rote memorisation and text interpretation for social mobility (Yang, 2015). This legacy has fostered a teacher-centered pedagogy, where knowledge is transmitted unilaterally from authority figures to passive students, often through repetition and subject-centered approaches (Wang & Torrisi-Steele, 2019). Despite reforms, the system remains highly centralised, with syllabi and teaching objectives dictated by the Ministry of Education, limiting lecturers' autonomy in modifying content or adopting alternative pedagogies.

1.1.2 Pedagogy in Chinese HE in the era of internationalisation

In the 1980s and 1990s, as the initial phase of Chinese reform and opening up, one major technique towards the internationalisation of HE was to select top scholars and students from elite universities for research programmes abroad, subject to rigid governmental control (Wang, 2010). Such improvement took place only partially,

without any immediate contribution to the internationalisation of Chinese HE. Given the central aim of popularising Chinese HE, teaching and learning at the tertiary level mainly followed the Confucian model (Liang et al., 2020).

Chinese classrooms are generally understood to be highly teacher-centric, in which the enduring emphasis on quantifiable performance and assessments often forces academics into practicing traditionally didactic methods of instruction, such as lectures and end-question tests (Moula, 2021).

That said, the unprecedented expansion in Chinese HE enrolments at the turn of the 21st century quickened the massification of its HE sector (Zhao, 2020). As the enlarging student body necessitated re-consideration of the function of Chinese HEIs in preparing students adequately for knowledge acquisition, application and critical thinking, to survive real-world challenges (ibid.), relevant HE stakeholders have drawn attention to the need for devising fitting teaching practices (Wang & Li, 2021). Coupled with the aims of boosting the economy and strengthen Chinese global knowledge competitiveness during internationalisation, and enhanced mobilities of academics, Western educational philosophies were introduced into Chinese HE sectors (Lin, 2019; Wu, 2022). Further, the 13th Five-Year Plan (2016–2020) instigated by the Chinese government, included an official commitment to internationalisation (ibid.), which encouraged HE sectors to enhance education quality by means of appropriate curriculum and pedagogical reforms, with a focus on the process of learning. Subsequently, innovative, student-centric pedagogies emphasising student autonomy and independence gained wide endorsement among home scholars (e.g., Tan & Reyes, 2016; Wei et al., 2016).

1.1.3 The Changing Profile of China's pedagogy

China's pedagogy has evolved through exposure to foreign theories, leading to diversification and hybridisation (Deng, 2011). Domestic stakeholders have increasingly integrated Western paradigms while striving to develop indigenous approaches (Liu & Lin, 2008). The construction of China's pedagogy at the tertiary

level began with significant Soviet influence, but gradually shifted towards independent development, focusing on diversity of discipline and the integration of traditional and modern methods. Despite considerable progress, the lack of originality remains a challenge, and is attributed to insufficient academic awareness and an overreliance on foreign paradigms (Liu & Lin, 2008).

Scholars like Xingzhi Tao and Heqin Chen (2004) have contributed to nativism-based pedagogy, but the gap between theory and practice persists, thus highlighting the need for collaboration between theorists and practitioners to ground pedagogy in Chinese unique realities (Ning & Hu, 2006). The dominance of parochialism, which prioritises abstract theories over practical realities, has further hindered the development of a pedagogy of Chinese origin (Lin & Lin, 2008).

Debates on the compatibility of Western and Chinese educational epistemologies continue, reflecting broader societal tensions between modernisation and cultural tradition. Indeed, the past few decades have witnessed scholarly efforts in China to transfer the traditional, didactic pedagogical practices into more student-centric ones (Li & Du, 2013), seemingly to no avail, as they are seen as opposing local pedagogical values and epistemological traditions (Singh & Kaur, 2023). While some argue for the superiority of Western values such as science and democracy, others advocate harmonising Confucian traditions with modernisation, as seen in other East Asian countries (e.g., Chen, 2004; Liu & Willis, 2021). Such an epistemological dichotomy seems increasingly blurred amid the quickening pace of globalisation, further complicating efforts to construct an indigenous pedagogy that reflects Chinese ontological and epistemological realities.

In summary, the Chinese HE system has evolved through phases of foreign influence and domestic reforms, yet remains centralised and responsive to national economic goals. While significant strides have been made in developing indigenous pedagogy, challenges such as theoretical originality and the theory-practice gap persist. The ongoing dialogue between Western and Chinese educational paradigms underscores the complexity of constructing a pedagogy that is both globally informed and locally

grounded.

1.2 Research questions

Focusing on the adaptation of PjBL as one Western pedagogy in Chinese HE, this study prioritises analysis of lecturers' lived experiences with PjBL in two HEIs in Southwestern China. More specifically, it explores the lecturer-initiated, bottom-up adaptation of PjBL from the lens of Cultural scripts for teaching and Complexity Theory. The two main research questions with which this study concerns itself is therefore:

1. How is western pedagogy adapted in Chinese HE, with specific reference to PjBL as a case?

2. How do complex systems of Chinese lecturer beliefs and practice interact with these new western pedagogies?

1.3 Overview of the study

This introduction chapter presented the aim and rationale of the study, followed by a background chapter which depicts the current context of higher education in China, with explicit focus on the complex and evolving discourse of pedagogy in Chinese HE. More specifically, it considers Confucianism as one major educational philosophy in China and its impact on the local instructional practices.

In effect, Chapter 2 contextualises the research and justifies the inquiry into project-based learning against the current backdrop of highlighting indigenous Chinese culture amid transfer of Western pedagogy, specifically project-based learning.

Chapter 3 taps into the literature pertinent to project-based Learning. This will start with an exploration of the epistemological underpinnings of PjBL, highlighting the learner-centric, constructivist underpinnings of PjBL as a Western pedagogy. This offers a significant reference to the study as it helps to define and differentiate PjBL

from other leatner-centric pedagogies. It is also worth mentioning that PjBL is subject to multiple, sometimes contesting, interpretations by researchers and practitioners, which renders PjBL implementation highly context-specific. Hence, given that PjBL constitutes an elusive concept, a working definition of PjBL is formulated by the end of Chapter 3. Finally, a review of international and domestic research on the topic of PjBL in higher education will be presented, highlighting existing gaps in the literature regarding lecturers' bottom-up implementation of PjBL, and the ways in which their educational beliefs are put into practice (or not, as the case may be).

Chapter 4 discusses the methodology of the study, identifying the search for a methodology congruent with understanding the lecturers' perceptions of, and in-situ adaptation of, PjBL. Also highlighted is the need to unpick the local culture, namely the instructional highlights and favoured instructional approaches by departmental members. The remainder of this chapter presents the research design, with emphasis on the sampling strategy utilised to access the lecturers implementing PjBL in Chinese HE. Data collection comprised semi-structured interviews with the two lecturers, their peers from the same module group and departmental managers. This was followed by my non-participatory observations of one session of two modules within each department and weekly non-participatory observations of the two modules featuring PjBL, over the course of one academic semester. The chapter then reviews the ethical issues surrounding the study and how they could be addressed, prior to a depiction of the process of data analysis. Specifically, it emphasises the combination of cultural scripts for teaching and Complexity Theory as a conceptual framework for this study. Such a structure helps to frame the presentation, and later discussion of data.

Chapters 5 and 6 present descriptive analyses of the data gathered mainly via the semi-structured interviews and non-participatory observations of each case study. Data is presented via cases, and later fed into common themes between the two departments and lecturers adapting PjBL in accordance with the perceived constraints existing within their institutional contexts. Some of the themes which emerged

contradicted previous scholarship. Themes such as the elusive nature of PjBL and demotivation in pedagogical innovation account for some of the impediments the lecturers reported in relation to their PjBL implementation.

Following on from the two data chapters, Chapter 7 presents a discussion of the data alongside previous research in the field. The chapter begins with a summary of the key findings, followed by a cross-case discussion of the findings by putting them under overarching themes in relation to the two research questions, namely lecturer beliefs as complex systems, lecturer beliefs and practices, and lecturer beliefs, practices and the mediating role of the context. In so doing, it refers back to the literature.

Chapter 8, the final chapter, takes a holistic look at the whole study by looking forward to examining the use of PjBL in the wider spectrum of Chinese higher education, together with discussions on the limitations and implications of this study, particularly in reference to pedagogical innovation in Chinese higher education by bottom-up endeavours from front-line practitioners.

Chapter Two: The complexity of Chinese higher education context and pedagogy

2.1 Introduction

This study is concerned with the ways PjBL is adapted in Chinese HE; hence, it sees such PjBL adaptation by Chinese HE practitioners to be present not only within a classroom, departmental, educational or social vacuum, but within wider contexts simultaneously. The absence of clear guidelines for pedagogic selection in educational policies allows a degree of autonomy for practitioners while, on the other hand, making innovations in pedagogy largely an individual, unguided endeavour.

In considering the practitioner-led, bottom-up adaptation of PjBL under everyday classroom practices in Chinese higher education, it is first pertinent to clarify the concept of pedagogy, before attending to complexities within Chinese higher education policies, and its complex trajectory of borrowing, rejecting and adapting pedagogies originated in the West. This will help situate the study and the research participants within the broader educational context, where pedagogy undergoes processes of diversification, hybridisation and re-construction with Chinese originality.

Thus, this chapter intends to briefly discuss the contexts of Chinese HE policy and pedagogy use, so as to contextualise and justify more explicit reviews of the constructs, developing trajectories and landscape of pedagogical application of PjBL.

This chapter consists of seven parts; I shall start the chapter by delving into the definition of pedagogy (2.2), in which the differentiation between pedagogy and teaching will be highlighted in epistemological justification of the study. In the third section (2.3), I will provide snapshots of Chinese HE and how its pedagogy has

evolved under the effect of modernisation and internationalisation, which feeds into an updated overview of pedagogical use at the tertiary level. In the next section (2.4), to tap into the epistemological context surrounding teaching and learning practices in China, I will reflect on the guiding education philosophy of Confucianism and its profound impact on traditional Chinese teaching and learning practices. This will be followed by an examination of China's pedagogy alongside the changing profile of Confucianism, from a historical perspective (2.5), towards a general presentation of the paradigm of China's pedagogy, with emphasis on its major characteristics. To be further discussed are the updated epistemological strands beyond the dichotomy between West/East in understanding pedagogy, together with the latest trends of recognising local aspects in constructing pedagogies of Chinese origin. Section 2.7 concludes the chapter.

2.2 Understanding pedagogy: how it differs from the act of teaching

This study is concerned with the adaptation of PjBL for pedagogical use in Chinese HE, from the lens of Cultural Script for Teaching and Complexity Theory. It firstly builds upon the assumption that "all education has national characteristics and grow and develop only in the soil of its indigenous culture and given social conditions" (Ma, 2001, p. 81). Relevant here is the definition of pedagogy as a starting point in unpicking the complexities in teacher beliefs and practices.

As an eclectic term depicting the interplays between teachers, students, the learning tasks and environment (Murphy, 2012), pedagogy is often viewed as depicting the methods/approaches adopted by teachers to navigate student learning. Best (1988) stressed that the values of pedagogy are better reflected in the educational process than theorising attempts; that said, pedagogy stands as a broad term which explains the methods used to educate learners, embracing both teaching methods and the connection of teaching and learning (Longhran, 2013). Differences between teaching and pedagogy can also be found in Alexander's (2008, p. 6) accounts that "teaching is an act while pedagogy is both act and discourse…Pedagogy connects the apparently self-contained act of teaching with culture, structure and mechanisms of social

control." This resonates with a further differentiation between pedagogy and teaching by Shah and Campus (2021); teaching is activity-based while pedagogy embodies the holistic 'social and cultural values within the learning relationship'.

Of special note here is Loughran's (2013) suggestion of two lenses of positioning teaching, namely the transmission of information and teachers' thinking.

The former embeds the general understanding that teaching is transmitting knowledge, while the latter attaches significance to the teachers' decision-making under classroom circumstances, which foregrounds the multiplicity of teaching approaches. Teaching is thus dynamic in nature, subject to teacher decisions. Strang (2013) pinpoints a positive link between learner test performance and teachers' adoption of pedagogy in higher education. Such study justifies the centralisation of teachers in discussing the use of pedagogy.

Delving further into the working definition of pedagogy by Murphy (2003), as "an art follows from the view that pedagogy is about the interactions between teachers, students and the learning environment and learning tasks" (p. 34), a better pathway to exhaustively examining pedagogy lies in inclusion of the belief and practice of instructors, who work to facilitate learning while accommodating learner needs.

Such sensemaking guides the examination of pedagogy in this study. To illustrate, in addition to depicting the activity of teaching, pedagogy embodies the production of social and cultural values during the learning process and within the learning relationship. Therefore, investigations of pedagogy require not only considering classroom dynamics, but also the cultural/social contextual underpinnings of the teaching methods.

Having discussed the definition of pedagogy in this inquiry, the next section sought to tap into Confucianism as one guiding educational philosophy in China, embedded in teachers' beliefs when implementing PjBL.

2.3 General background to Chinese higher education system

2.3.1 The establishment and development of the modern Chinese HE system

The establishment and development of the modern Chinese higher education (HE) system has been mainly understood as a process of Westernisation. Its history can be traced back to the early 1900s when the Japanese HE system served as the example for China. After 1919, the American model gained wide recognition. Subsequent to the foundation of the People's Republic of China in 1949, a nation-wide renovation and revolution of the system took place, as central government took over HEIs subsidised by foreign countries, transferring all private HEIs into public ones, and re-structuring Chinese HE system based on the Soviet Union model (Gu et al., 2018).

The increasing needs of accelerated social and economic development since the 1950s have shaped the Chinese HE system as highly centralised, navigated by a government-controlled agenda. It also responds promptly to the perceived needs for national economic progress. This has unsurprisingly resulted in excessive emphasis on engineering and scientific education. Concurrent neglection of other subjects, especially humanities, have caused an overall imbalance within the HE sector and fuelled educational reform in the 1980s (Gu et al., 2018), in which small HEIs were merged to form large-scale universities covering comprehensive subjects, expanding the recruitment of undergraduates, especially in support of highly prestigious universities etc. (ibid.). Despite such remarkable changes, the highly centralised system of Chinese HE persisted: departments design syllabi in line with the curriculum proposed by the Ministry of Education, lecturers later receive clearly prescribed lesson contents and objectives for each module from their departments. Though lecturers are encouraged to be creative in class, so long as module teaching aims and objectives are fulfilled, the extent to which they are granted autonomy in modifying teaching content, or incorporating their preferred pedagogic approaches and materials, is varied at personal, departmental and institutional levels. In further view of the strict assessment system through which students evaluate and judge lecturers' performance at the end of each semester, how lecturers work within their personal space of autonomy constitutes an interesting topic.

Indeed, HEIs in China are heavily contexualised, both culturally and historically (Wang et al., 2019); also, higher learning in China emerged as part of the bureaucratic system and is intimately linked to the imperial system. Presentable performance at the imperial examination opens pathways for upward social status, by demonstrating skillsets desirable for the ruling class (Yang, 2015).

Subsequently, the pursuit of knowledge as an end was marginalised in the advocation of content mastery, rote memorisation and text interpretation (Wang & Zhao, 2021), resulting in an enduring reliance on teacher-centred pedagogies featuring unilateral knowledge transmission by teachers as authority figures, to students as passive recipients, or "disciples" (Paine, 1992, p.190); repetition is often highlighted via the use of a subject-centred approach (Wang et al., 2019).

2.3.2 The development of Chinese HE Policies

Following China's Opening-Up in 1978, its education policies have become noticeably open to multiple ideological ideas with respects to localisation, globalisation, diversification, digitalisation, decentralisation and marketisation (Gu et al., 2018). Such policy developments are deemed essential transformations in China following the national reform and open-up policy in 1978, and have rapidly accelerated in the early 2000s. Being market-driven in pursuit of economic growth, such initiatives have navigated China's education policy and its developmental course (Ngok, 2007). It is notable that HE policies in China have experienced a complex process, in line with multiple changing discourses, e.g., an unprecedented quest for world-class universities (wcus), systematical marketisation, revolutionary massification, structural optimisation, institutional digitisation and all-round internationalization (Liang et al., 2021, p.138). The most recent stage of the Chinese model of the university is coined as the Chinese University 3.0 by Li (2016, 2020), as it differs significantly from its precursors. The central aim of HE policies in China, in a similar vein, sought to systematically upgrade Chinese HEIs with four ideological imperatives, e.g., quality, equity, efficiency and the nation building of China (Gu et al., 2018).

The complex discourse of Chinese HE policy development since the century can be attributable to the convergence of a myriad of aspects, e.g. economic, political, cultural and international (Li & Peters, 2019). Firstly, by virtue of a steadily increased GDP, with the central government playing a decisive role in resource providence and allocation, HEIs are now granted much more - and easier - access to maximising outcomes in multiple aspects, e.g. student learning outcomes, knowledge transfer, and contributions to diverse communities (Xiong et al., 2022).

Secondly, political flows constitute another dominant driving force for Chinese HE policy development, with emphases on tackling regional developmental disparities and developing the quality of HE as part of an intimate relationship to the overall national building (Li & Li, 2019), manifested in agendas like Projects 211 and 985 in the late 1990s and the most recent "Dual World-Class Construction Movement" commenced since 2017 (Jiang et al., 2024), in an effort to heighten the institutional/academic qualities of Chinese HEIs to global standards of HE (Gao & Li, 2020; Song et al., 2021).

Thirdly, Chinese HEIs have simultaneously endeavoured to internationalise themselves in multiple ways, firstly by absorbing increasing numbers of international students since 2015 (The Editorial Board of *the People's Republic of China Yearbook* 2017, p. 651), together with active involvement in outbound internationalisation, or a process of "Sinicization" as termed by Li (2017b). A demand-led response agenda has enabled many Chinese universities to partner with their international counterparts to set up the CIs and CCs worldwide, the largest project of international collaboration in language and cultural exchange in human history (Lin & Wang, 2022, p.30). Li and Tu (2016) refer to such new means of overseas collaboration by Chinese HEIs through CIs as a milestone in their internationalisation progress and a demonstration of greater openness to the world.

More recently, Chinese HE policies have paid close attention to the promotion, shaping and rejuvenation of traditional Chinese values and norms, highlighting the cultural mission of its HE sector. The latest prescribed cultural mission of Chinese HE

concerns the integration of teaching and learning practices with traditional norms and ethics of Chinese culture, as reflected in *The Ten Guidelines of Professional Conduct of College Faculty in the New Era (Ten Guidelines)* in 2018, which requires HE practitioners to "uphold decent cultural values and professional norms in their professional, daily conduct" (ibid.).

This section has reviewed the changing profile of Chinese HE and its policy, with later emphases on value imparting, quality promotion and internationalisation, thus preconditioning HE teaching as a complex, hybridised act, at the intersection of cultural education and subject teaching. Such reconciliation is manifested in pedagogy. The next section will review the educational philosophies in China.

2.4 Confucianism as one of the major educational philosophies in China

In acknowledging the profound role of Confucianism in shaping teaching and learning practices in China, this section foregrounds the perceived conflicts between the lecturers' stated beliefs and actual practices of enacting PjBL, as presented and discussed in chapters five, six and seven.

2.4.1 Chinese Philosophy of Education

The overriding concerns within Chinese philosophy are understood to be cultivation of the self, the social order/sustainability, and the harmony between human beings and nature (Peters, 2022; Ivanhoe, 2000, 2024); yet, as an ambiguous concept, Chinese philosophy is mainly approached via Confucianism, often as a purported manifestation of traditional Chinese philosophy, 'an integral part of east Asia and so salient a feature of the Sinic world' (Tu, 1998). The Chinese traditional view of teaching and learning, in stark contrast to Western society, tends to be holistic (Chen, 2015; Lo, 2021), traceable to almost 26 centuries ago when Confucius initiated a comprehensive framework of education, stressing that the central goal of education is to nurture learners on five interrelated dimensions, namely benevolence and morality, intelligence and knowledge, courage and constitution, aesthesis and music, and talent and faculty (Li, 2015; Tan, 2015).

It can hence be inferred that, guided by Confucianism as an official educational philosophy (Wu & Zha, 2018), the traditional Chinese approach to teaching and learning builds upon holistic and relational thinking (Chen, 2015; Qin & Nordin, 2019). Also highlighted are the social morals and 'educatable-ness' of individuals, who can achieve spiritual escalation by entering worldly affairs, enabled by the role of education in boosting social justice. Education, in this vein, stands for an instrumental entity which nurtures noble individuals as responsible social beings, via practice-based education activities (Kember & Kember, 2016).

The overriding goal, for rulers and educators, lies in bringing about and maintaining equilibrium based on balances among citizens. Such epistemology is underpinned by social morality which advocates social responsibility and educational ethics. Following this line of thought, Hu (2002) claims the Chinese culture of teaching and learning as a holistic set of educational norms, assumptions, behaviours and beliefs, seems to have a deep cultural bearing and is therefore entrenched, to some extent, in Chinese teaching and learning practices. Common pedagogical practices in the Chinese learning context embrace the educational philosophy of "learning to use rather than learning by using" (Yu & Wang, 2009, p.32).

Such a Confucianism-centric standpoint in unpicking the Chinese philosophy of education, however, provides an over-simplified depiction. That is to say, it neglects other influential schools of thought in the wider realm of Chinese philosophy of education, e.g., philosophical discussion or reflection of education in line with traditional thought, yet simultaneously considering the influences of thoughts/cultures elsewhere (Hung, 2016); indeed, despite the prominence of Confucianism in Chinese education, Taoism and Buddhism also carry much educational relevance, especially in the fulfillment of self-realisation and elevation beyond mere individual social desires (Wang, 2016).

Such similar or competing thoughts on education are intriguing, though making Chinese educational philosophy considerably arcane (Burik, 2010; Hung, 2016). Thus, Chinese philosophy of education could broadly include philosophical

discussion and reflection of education based on Chinese thought, in simultaneous consideration of the impact of the West, or with the interplays between indigenous Chinese and non-Chinese cultures. Given the profound, enduring impacts of Confucianism on educational practices in China (Wang & Billioud, 2022), Confucianism is particularly pertinent to understand lecturers' beliefs of enacting PjBL in the study.

2.4.2 Traditional Teaching and Learning Practice in China

Education and its many manifestations do not exist in isolation; they are inextricably related to their societal and cultural environments (Ozupek & Ozer, 2015). Traditional Chinese culture, underpinned by Confucianism, has shaped teaching and learning philosophy and practice locally (Chan & Elliott, 2002), learning style (Vita, 2001; Kennedy, 2003; Oxford & Anderson, 1995), the conception of what constitutes quality teaching (Pratt et al., 2001), and the importance of moral education (Bresciani, 2023). As such, this section proceeds to tap into the traditional teaching and learning practices in the Chinese context, drawing from the Chinese examination system (section 2.4.2.1) which has shaped the dominant role of teachers under classroom circumstances (section 2.4.2.2), to foreground the lecturers' professed beliefs and their actual practices with PjBL as presented and discussed in later chapters.

2.4.2.1 A long-standing, summative examination system

China holds a distinctive view of teaching and learning, evolved from its long history, and which is heavily embedded in its social and cultural roots. A case in point is the longitudinal summative assessment in the form of descriptive, heuristic examinations, mainly targeting at testing learner competence in memorisation, text repetition and interpretation (Ryan, 2019).

As a result, teaching and learning become exam-oriented, with the focus on passing quantifiable examinations; that said, priority is given to cultivating learners as moral and responsible citizenry, rather than merely the construction of new knowledge (Tan, 2015). This further justifies the traditional Chinese approach to teaching as featured

saliently by transmission and apprenticeship (Pratt, 1998), and conceptualisation of teaching as a generally didactic, text-oriented act.

2.4.2.2 The role of teachers

Traditional Chinese teaching and learning was hence instructor-centred rather than student-centred, in keen pursuit of social harmony and a related social hierarchy. Subsequently, student-centred pedagogies, e.g. project-based learning, clashed with such traditional norms and incentives (Fang & Warschauer, 2004).

Teachers symbolise responsible and authoritative presences, both in regard to knowledge and character. This is attributable to Confucian beliefs that a teacher should perform as both a provider of academic discipline and as a moral guide to the students. Such dualism highlights the teacher's authority and the learner's responsibility to respect and emulate their teachers (Choo, 2020). Arguing along the same line are Tsang et al. (2002), who further ascribe such phenomenon to the Confucian epistemology that knowledge arises in a linear manner, and the prioritisation of memorisation to facilitate text familairsation and later understanding, reflection and questioning. In today's Chinese society, such epistemology permeates classroom dynamics in the Chinese HE sector, fueling a highly hierarchical learner-teacher relationship where students try hard to maintain good relationships with their teachers, despite their disagreement or discontent. The teachers, concurrently, take a dominant, leading role in the teaching/learning process.

This section has outlined a generic picture of traditional pedagogy in China, alongside the roles of teachers and students. The next section considers China's pedagogy more explicitly by putting it under the recent trends of modernisation.

2.5 China's pedagogy in the era of modernisation: the changing profile of Confucianism

Deng (2011, 2013) and Wheatley (2021) see modernisation as the engine underlying a global trend of homogeneity in certain aspects of education, e.g., curriculum structure

and pedagogic practices. As the Western model for schooling gains wide recognition at the turn of the 21st century (McEneaney & Meyer, 2000) and Western models being more widely accepted or recognised, similar pedagogic practices boom globally, as guided by the 'industrial-consumer' model and a perceived urgency in cultivating qualified workers for the global economy (Araujo & Spring, 2006; Larey, 2024; Spring, 2006); as such, flows of educational beliefs and practices are communicated globally (Rasmussen et al., 2015).

This study considers China as one prominent site for understanding the complexities surrounding adaptation of Western pedagogies, since it has been at the intersection of Western/local educational philosophy amid the acceleration of global modernisation. On one hand, Confucianism has occupied a remarkable place in Chinese educational philosophy, shaping local educational practices as well (Bergen & Mi, 1995). Yet, the long-entrenched dominance of Confucianism in Chinese education was ultimately susceptible to change in the context of modernisation.

Deng's (2011) categorisation of China's modernisation of education into four major historical eras offers a succinct reference for pondering the evolving profile of Confucianism in Chinese education. As stressed, the awareness of reforming the domestic education system in the Qing Dynasty suggests a passive response to the defeats by Western and Japanese powers, later fueling attempts to borrow ideas from the West as 'advanced' and to modify Confucianism according to Western modernity. Highlighting the followed debates on the epistemological dilemma between 'Western cultural values' and 'essential Chinese values', 'Western utilitarianism' and 'Confucian ethics', the crux of the confusion rests on formulating a strategy eclectic enough to reconcile given Western epistemologies and core Confucian epistemologies (Wu, 2009). There is scholarly consensus that modernisation in China can be equated to Westernisation (Deng, 2011). A modern Western school system, borrowed from Japan, superseded the former imperial civil service examination system at the turn of the 20th century (Ding, 2001). Criticisms surrounding Confucianism proliferated during the Republican Era (1912-1949) leading to the democratisation of China's

education, grounded in scholarly interpretation and modification of Western theories (Deng, 2011). Alongside this, Confucianism was re-appraised according to Western and non-Confucian epistemologies (Tan, 2008). Around the time of the Sino-Japanese War (1932 and later 1937-1945), restoration of Confucianism was in place to cultivate loyal, obedient citizens, so as to counter the epistemological impacts of Western liberal and democratic theory (Yuan, 2001).

China's modernisation ushered in an unprecedented period, beginning in the Reform and Opening up era (1977-1999), when a myriad of Western educational theories and models were adopted and adapted for domestic ends. Guided by Deng Xiaoping's epistemology that education should face modernisation, the world and the future, reforms were put in place to modernise China's education sector; educational theories developed in the West, mainly the US, the UK, Japan and Canada gained momentum (Ding, 2001), in concert with the revival of Confucianism, an essential cultural force which guided China into the 21st century (Hon, 2009, Makeham, 2008). The changing profile of Confucianism and the diluting of its doctrinal status mirror the penetration of modernisation.

Since China became inextricably linked to its global counterparts thanks to more advanced communications, updates in China's educational epistemology were inevitable. Confucianism, concurrently, underwent a scholarly re-interpretation based mainly on Western modes and ideas (Tan, 2008). Such enhanced eclecticism showcases that the modernisation of Chinese education has featured an over-century long reconciling and "contestation between Western modernity and the Chinese (Confucian) tradition" (Deng, 2011, p. 7).

Consequently, such recognition of local needs necessitates selection, interpretation and adaptation of given Western theories and values based on traditional Chinese educational epistemologies (Wu, 2009; 2011); this is also the case for Confucianism within such 'round-trip' of epistemological exchanges between Western and Chinese education (Tan, 2008). Reflections of such exchange are viable in current classroom circumstances as a patchwork of Western and Confucian tenets (Biggs & Waktins,

1996; 2001; Cheng, 2011) and turn more seeable in the 21st century where China keeps borrowing Western educational theories while asserting its global profile (Deng, 2011). Post-colonial scepticism prevails among domestic academia in reconsidering the legitimacy and suitability of such Western theories in relation to China's context, and towards the formulation of distinctively Chinese educational theories (Shen et al., 2010); interestingly, Confucianism gained resurgence amid the current mindset of seeking national pride and, more notably, indigenous Chinese norms and standards by returning to its own roots (Tian & Johnston, 2008).

In short, this section set to contexualise the study, by arguing that a dualistic distinction between the desirability of Western or Confucianism-based, traditional China's pedagogy is disabled by the infusion of Western educational epistemologies, which have further diversified and complicated China's pedagogical discourse (Wu, 2011). Arguing along the same line are Cheng and Xu (2011) that 'Chinese traditional discourse is entangled with rather than replaced by Western discourse' (p. xxx). This study presents an empirical inquiry into the treatment of Western pedagogies by means of bottom-up endeavour from Chinese educational practitioners, thus aiming to uncover the many underlying epistemological aspects.

2.5.1 The Paradigm of China's pedagogy: eclecticism

This section aims to discuss the changing paradigm of pedagogy in China, from emulation from the West as advanced counterparts, to re-considering the suitability of Western pedagogy and, most recently, a construction of pedagogy of Chinese origin with an overall trend of eclecticism. As such, eclecticism foregrounds the lecturers' adaptation of PjBL, in the form of selective implementation of given constructs of PjBL, and that of teacher-centric, didactic teaching as presented in Chapter five and six.

By revisiting the developmental trajectories of China's pedagogy from a historical perspective, the paradigm of China's pedagogy can be captured. Here, the work by Liu and Lin (2008) is of special notability. Conceptualising the paradigm of pedagogy

as “the dominant view and widely-acknowledged system of thought, especially the clues to solve issues of pedagogy, stipulates the roles of pedagogy construction, designates the problems to explore and determines the research methods and procedures of educationalists” (p.165), the two authors highlight stability as the other fundamental function of the paradigm and, therefore, its functionality in engendering generic criteria, theoretical beliefs, value concerns and ways of thinking for members of the academic community. More importantly, the paradigm foregrounds the world perspectives underlying theory tradition and consultation. The concept ‘paradigm of pedagogy’ then suggests both epistemological modes and methodological grounds (materials or skills necessary) for construction of pedagogy.

Subsequently, the paradigm of China’s pedagogy presents the connotation of shared beliefs and research methods by Chinese researchers in pedagogy for a given period; by affecting scholarly viewpoints and theoretical approaches, such beliefs and methods are translated into given pedagogy theories and research tradition. China’s pedagogy paradigm is further dividable into theory paradigm, discipline paradigm and research paradigm; given the focus of the study on lecturers’ adaptation of PjBL as a Western pedagogy, here the former two are stressed.

The theory paradigm represents an epistemological package (theoretical framework, model, way of thinking and system of thought) for sensemaking of education theory and reality, shared by all the members of an education community. Such a paradigm can be better captured via considering local aspects (ibid.); as discussed earlier, over the last century, the void created by the lack of an indigenous paradigm of China’s pedagogy fuelled the absorption of established pedagogies elsewhere, more recently Western ones. Despite some positive outcomes, such Western student-centred pedagogies failed to take root in the local context and led to a fluctuation between teacher-centred lecturing and student-centred learning.

The discipline paradigm represents “the cognition model of pedagogy, the framework to exhibit education world and the way to coordinate education phenomena” (Liu & Lin, 2008, p.170), and is shaped by “history, thought and necessity” (ibid.); as a

result, China's erratic historical discourse has, to some degree, pre-conditioned the prevalence of deduction in guiding its pedagogy and unsurprisingly, led to the lack of an indigenous pedagogy paradigm; to illustrate, pedagogy remains subordinate to other disciplines (Liu & Lin, 2008), restrained on ideological grounds and by excessive dependence on disciplines like philosophy and psychology. Liu and Lin (2008), in a similar vein, warn that China's discipline paradigm is colonised and urge a return to China's roots, so as to dilute exoticness as the 'birthmark' (Ye, 2004, p.8) of China's pedagogy. Targeted efforts in 'copying' Japan, 'imitating' America and 'learning' from the Soviet Union are further deemed the three steps in development of China's pedagogy, under the influence of colonisation at different historical phases (Liu & Lin, 2008).

Such perceived limitations in China's pedagogy paradigm, though long-standing, can be remedied by recognition of pedagogy as an independent field of study with reference to Chinese characteristics (ibid.). The paradigm of pedagogy, additionally, should be appreciated from a dynamic, social viewpoint in order to accommodate the interplay and entanglement of multiple power mechanisms within curriculum/education as a contested site essentially (Lim & Apple, 2018).

2.6 Major Shifts in Pedagogic Approaches in Chinese HE

To appreciate the complex, changing course of pedagogic approaches in Chinese HE, it is necessary to locate pedagogic practices within the evolving, broader background of Chinese higher education and relevant policies. In so doing, the study firstly acknowledges the complexities within the context of policy discourse, before explaining the complex interplay between policy and the bottom-up, practitioner-initiated adaptation of Project-based learning as a Western pedagogy.

2.6.1 The changing profile of pedagogy: The absorption of foreign models

Having revisited the developmental trajectories of Chinese HE and its policy contexts, this section examines the landscape of pedagogy in Chinese HE.

Overall, China's pedagogy can be considered a patchwork of different philosophies and theories, especially those from the old Soviet Union and Western society as advanced contemporary examples (Liu & Lin, 2008). Criticism has also come from home scholars, who feel that that such infusion of theories from elsewhere would hinder the formulation of indigenous theories genuinely compatible with the domestic context; that said, the prioritisation of foreign paradigms pre-conditions, among other things, China's theory development and relevant pathways, thus weakening China's self-determination in relation to the construction of more localised education epistemologies which take into account its own ontologies.

2.6.1.1 Influence of the Soviet Model

Beginning in the 1940s, China's pedagogy has undergone a complex process, borrowing extensively from the educational epistemologies of its more developed counterparts. Isolated by the Western capitalist countries headed by the US, China strated to draw from the Soviet model of education since the late 1940s, absorbing its educational theories and practices. The first example would be the introduction of the pedagogy of N.A. Kaiipob, A Soviet educationist, who was the first to attempt to use Marxism for pedagogical use. Equally notable is Kaiipob's categorisation of pedagogy, a broader concept, into four aspects: pedagogy guidelines, teaching theories, moral theories and school management theories, which later feed into a relatively holistic discipline mechanism of pedagogy and lay the paradigm foundation for modern pedagogy (Deng, 2011).

Kaiipob's pedagogy soon received popular recognition and mass application in China, with translations of his work on pedagogy. Given that such works were then extensively referenced in pre-service teacher education programmes, it can be inferred that Kaiipob's pedagogy permeates the contemporary construction of China's pedagogy, particularly as a standard paradigm for textbook compilation. An illustration would be the well-received pedagogy textbook, *Pedagogy* by practitioners from Nanjing Normal University; despite its novel features in organisation, the pattern of Kaiipob' s pedagogy is visible (Deng, 2011).

2.6.1.2 Recognition of the Western Model

Subsequent to the decade-long, almost nationwide halt of education construction during the Cultural Revolution, pedagogy in China was rejuvenated by the re-emergence of an eclectic mindset; that is, emphases were placed on constructing disciplines, diversifying academic standpoints and encouraging international communications. Following the call by Deng Xiaoping to "gear education to the needs of modernisation, the world and the future", a set of pedagogical reforms have been in place over recent decades (Xu & Mei, 2009), beneath which the tendency to borrow educational practices and the relevant guiding thoughts from the West in particular is pronounced (Tan et al., 2015). The development of pedagogy was again in place, fuelled by a recognition of pedagogy from 'the West' as the developed counterparts, and, more significantly, scholarly efforts by home experts to promote Western pedagogy and theories; that said, a long list of Western works on pedagogy, methodology and curriculum were subsequently translated and edited to serve domestic needs.

2.6.2 The changing profile of pedagogy in Chinese HE: advocation of learner-centred pedagogy, criticisms and the current landscape

This section aims to tap into the changing profile of pedagogy in Chinese HE explicitly, with focuses on the developmental trajectories of pedagogy alongside internationalisation in Chinese HE, which give rise to a debate concerning learner-centric and teacher-centric pedagogy. The section ends by providing a recent snapshot of pedagogy in Chinese HE under the influence of Shenhua Kecheng Gaige.

2.6.2.1 Pedagogy in Chinese HE under its internationalisation

In the 1980s and 1990s, as the initial phase of China's reform and opening up, one major practice leading to the internationalisation of HE was to select scholars and students from elite universities, mainly to study or partake in research programmes abroad, subject to rigid governmental control (Huang, 2003). Such improvement took place only partially, without any immediate contribution to the internationalisation of

Chinese HE. Given the central aim of popularising Chinese HE, teaching and learning at the tertiary level mainly followed the Confucian model (Liang et al., 2020).

The unprecedented expansion in Chinese HE enrolment at the turn of the 21st century quickened the massification of its HE sector (Mok & Marginson, 2021). As the enlarging student body necessitated re-consideration of the function of Chinese HEIs in preparing students adequately for knowledge acquisition, application and critical thinking towards real-world challenges, the relevant HE stakeholders have turned their attention to developing effective teaching practices, e.g., Dunrong & Fan, 2009; Yin & Wang, 2015.

Intertwined with the aims to strengthen China's global knowledge competitiveness during internationalisation, and enhanced mobilities of academics, was the introduction of given Western educational philosophies to Chinese HE (Lin, 2019). Further, in light of the 13th Five-Year Plan (2016–2020) instigated by the Chinese government, an official commitment to the internationalisation (ibid.) that HE sectors should see to strengthen education quality by means of appropriate curriculum and pedagogical reforms focusing on the process of learning, student-centred pedagogies centring on the fostering of student autonomy and independence gain wide endorsement among home scholars (e.g. Reyes et al., 2018; Yin et al., 2016).

Coupled with such listed goals was re-examination of traditional teaching/learning methods in Chinese HE, though mainly constrained to the most prestigious universities. In Tsinghua University, for instance, a reform programme was initiated in 2014, targeting innovative talent cultivation by holistic teaching and learning reforms. Multiple measures were adopted, transferring pedagogical approaches from teacher-centred to student-centred, together with promoting a more interactive atmosphere in teacher-student and student-student relationships. Such measures have been recognised by Chen Jining, the former president of Tsinghua University, stating that the positive outcomes of such measures can be relevant to Chinese HE reform. Chen also highlighted the timely amendments of such measures to help nurture student competence in innovation and critical thinking.

2.6.2.2 The dilemma between learner-centric and teacher-centric pedagogy

Dello-Iacovo (2009) noted the trend in Chinese HE where traditional teacher-centred lecturing and rote learning were gradually superseded by student-centredness, aiming to enhance student motivation, positioning them as active participants in the learning process, and encouraging student-teacher and student-student interactions in learning. Nonetheless, the new teaching paradigm did not gain wide recognition in China until 2018, when the MoE determined to improve the quality of undergraduate education (Yin & Wang, 2015). A set of student-centred pedagogies were then considered favourable.

Despite the scholarly/governmental predilection for learner-cerntred pedagogic approaches in Chinese HE, pedagogic use by university lecturers remains a sporadic, individual act, subject to personal understanding of teaching (Prossser & Trigwell, 1999, p.206). The use of content-, lecturer-, or learner-centred pedagogic approaches, by the same token, is pre-conditioned by lecturers' perception of teaching as either concerned with knowledge transmission or a facilitative endeavour (Yin et al., 2017). The five broad pedagogical approaches as categorised by Trigwell, Prosser and Taylor (1994) stand in a polarised set, placing teacher-centred and student-centred approaches at the two extremes. While the former alleviates teacher pressure in delivering course content, the latter is more conducive to student active knowledge construction and use of pre-existing knowledge (Lindblom-Ylanne et al., 2006). Such categorisation, albeit partially flawed (Prosser & Trigwell, 2006), has provoked scholarly interest in pedagogical approaches in relation to learning; however, this is mainly in reference to western scholarship. The necessity of examining lecturers' pedagogical use in non-western contexts is pronounced. China provides an especially pertinent site for such research, given the ongoing transition from teacher-centred to learner-centred teaching in its HE sector (Yin et al., 2017).

Notwithstanding governmental efforts to transport Western educational principles to a domestic setting since 1911, and the prioritisation of teaching quality by HE policy makers in China (Zhang & Liu, 2022), modes of teaching in Chinese HE hitherto

remain largely teacher-centred (Zhang, 2021). This is the same as the typical pedagogical approach in China, as highlighted by Paine (1992), which is text-intense, teacher-centred and subject-oriented. Teaching at the tertiary level, therefore, is also carried out in ways supportive of text-orientedness and teacher-centredness, e.g. the lecturing of subject knowledge and texts towards quantitative examinations. Such exclusive emphasis on subject, procedural and factual knowledge, however, suppresses the space for the training of other equally essential competences, e.g., problem-solving, critical thinking and independent learning. The side effects were exacerbated by the recruitment expansion and pay enrolling system in Chinese HE sector since the 1990s, resulting in deteriorated HE teaching conditions (Yin et al., 2017) and, concurrently, a diluted overall quality of Chinese HE and teaching (Hallinger & Lu, 2013).

Internationalisation of education has various agendas worldwide (Ayoubi & Massoud, 2007; Guo & Guo, 2016). The prevalence of internationalisation of education is particularly useful in the HE sector by transforming and diversifying educational norms, e.g., the transportation of pedagogy mainly from developed, 'Western' countries to developing ones (Guo et al., 2020; Sperduti, 2017). China is one such prominent case (Huang, 2003; Yang, 2020). Following the call by Deng Xiaoping to "gear education to the needs of modernisation, the world and the future", a set of pedagogical reforms were enacted over the past decades in China (Tan, 2017). Underlying these were tendencies to borrow educational practices, and the relevant guiding thoughts, capturing the interest of 'the West' - the U.S. and the U.K., for example (Tan & Chua, 2015). The concept of a 'learner-focused' teaching approach (as an example of a 'Western' educational practice) was therefore introduced into Chinese HE, alongside the transition from elite to mass education (Hallinger & Lu, 2013). More recently, as a crucial mediator in promoting mobilities and knowledge communication, the Chinese HE sector has engaged more proactively in collaborations with its global counterparts, particularly Western countries, against the background of a highly competitive global knowledge economy (Liang et al., 2020).

HE reform was initiated after the 1980s (Xiong et al., 2022) with emphasis on boosting its HE internationalisation by means of establishing transnational HE programmes for mutual movement, and also infusing international dimensions into tertiary teaching and learning (Dai, et al., 2020; Dai & Matthews, 2020). Such endeavours facilitate communications between Chinese HE and the global sector in myriad ways, e.g. educational philosophies and pedagogy.

On the other hand, internationalisation acts as a catalyst for numerous societal changes. Successive Chinese governments has been responsive to the quickening pace of internatioanlisation by instigating a set of educational reform policies aimed at tackling the issues caused by the massive recruitment expansion in its HE sector since the 1990s, like deteriorated teaching conditions (Cai, 2013). Notably, they have set about developing an education system compatible with the challenges and opportunities of the new era (Minyue, 2013). Shenhua Kecheng Gaige (thereafter referred to as CSKG) is of special noteworthiness as one such exhaustive policy covering primary, secondary and higher education, under dynamic socioeconomic, political and educational circumstances (MoE, 2014). For one thing, China has been exposed to the intensification of globalisation following its Opening-up Policy in 1978, yet its education system failed to meet the challenges, especially in the promotion of English education; for another, notwithstanding the transformation of China's economic system into a market economic system prioritising a knowledge economy, its original education system falls short of the demands for diversifying education and recognition of individuality. This is attributable to the outmoded teaching materials and pedagogy (Qun & Wanjin, 2007).

In terms of subjects, home scholars have mainly concerned themselves with the pedagogic use in language education and STEM education, musing on the penetration of internationalisation into such subjects (e.g., Ma, 2021; Sun, 2024; Yumei, 2010). The use of Western pedagogy in other subjects, for instance pre-service teacher education and its accompanying implications, are seldom discussed. This is of interest, specifically, as teacher education constitutes an integral part of Chinese HE

as well (Liu et al., 2015). Borrowing from Brandenburg et al. (2013) that teaching serves as the foundation for the existence of a university and that the impacts of teaching methods on students' and teachers' experience are profound, this thesis sets out to investigate the adoption and adaptation of Western pedagogy, and Project-based Learning in particular, in English major and teacher education.

2.6.2.3 Pedagogy in Chinese HE under the guidance of CSKG

International scholarship is littered with criticisms of the teaching philosophies, teacher roles and student roles underpinned by Chinese teaching, alongside perceptions of China's pedagogy as overly "teacher-fronted, knowledge-dominated, and expository in approach" (Hu, 2005, p.673), and the Chinese teachers as "spending excessive time on lecturing and memorising and giving little attention to stimulating students' motivation for learning" (Ding, 2016, p. 329). Such criticisms, mainly stemming from the dissonances between Chinese/Western values, norms and practices in specific areas of teaching, might be biased, and undeniably outmoded, as they negate the Chinese aspects. It is, therefore, appropriate to draw upon the up-to-date landscape of pedagogic use in Chinese HE; the relevant systematic literature review by Lim et al. (2023), though limited to subjects of Humanities and Social Sciences, provides a particularly pertinent reference.

CSKG, as one natural product of such perceived flaws, was in place in response to the dynamics underlying a knowledge-based economy, internationalisation in education and global communication. CSKG penetrates into all levels of the education system, navigating governance structure, assessment criteria and pedagogy; it should be noted, however, that the absence of particular, coercive pedagogies for multiple HE subjects within CSKG denotes both space and challenges for HE practitioners; CSKG merely broadly highlights the significance of cultivating learner creativity and enacting 'suitable' pedagogies at the undergraduate level (Liu, 2021). Such emphasis resonates strongly with the past pedagogic reforms by MoE to develop teaching- and learning-efficiency, e.g., shifting from teacher-centred to learner-centred pedagogies and the revision of teaching materials (Spencer-Oatey, 2007). The Chinese HE sector,

navigated by CSKG, is deemed a crucial economic asset and features prominently in boosting China's overall presence against current backdrops, subject to frequent reform attempts.

Given the current contexts and trends, the authors delve into China National Knowledge Infrastructure (thereafter referred to as CNKI), the most influential website for academic search in China, with the identification of seven pedagogies as the most frequently occurring in Arts and Humanities subjects; namely flipped classroom, case study pedagogy, experiential pedagogy, problem-posing pedagogy, task-driven pedagogy, massive online open course and English medium instruction.

To illustrate, the problem-posing pedagogy and the task-driven pedagogy are deemed innovative approaches in Chinese HE, mainly for the purpose of promoting a student-centred classroom (Wang et al., 2019). Such pedagogies are especially favoured, given their perceived potential in promoting learner readiness to the dynamism within human societies and denoting the reflexivity of educators in revising teaching strategies by considering the changing needs of learners and those of the disciplines they teach (Wang, 2019). Such epistemology has fuelled domestic scholarly interest in appreciating the transformation of pedagogical approaches locally, given Western educational paradigms, e.g. constructivism. Constructivism, at its core, represents the educational concept of 'teacher-based knowledge and student-centred' (Ge, 2020). This stands in contrast to the traditional teacher-centred model of teaching featured in China's context, derived from Confucianism as a long-standing, influential educational concept, and, often treated as a form of pedagogical innovation underlying the reform of teaching methods. Illustrations include the examinations of the constructivist teaching method in distance learning (Tian, 2018), and discussions on employing the constructivist teaching method in relation to the task-driven method (Liu, 2014).

The problem-solving and task-driven pedagogical approaches, simultaneously, are underpinned by constructivism, innovative pedagogy, and have gained some traction in language, history and ideological studies, as a means to transform the over-

emphasis on knowledge transmission from teachers to students under traditional, local classroom circumstances (Fan, 2016). Marking a departure from traditional knowledge transmission to a more interactive approach, such pedagogy conforms to the latest advocation of interactive and exploratory teaching methods by MoE (Liu, 2019) so as to facilitate self-directed learning (Lim et al., 2023). The two approaches, however, are often teacher-led, which is more compatible with the local context (ibid.). Student-centred pedagogy, taking the form of experiential pedagogy and flipped classroom pedagogy, is discussed in the review in relation to boosting active learning, career- and practice-oriented, so as to enhance student grasp of theoretical knowledge and motivation (Shuai, 2023).

A critical discussion of the seven listed pedagogies is also provided within the systematic review, focusing on the commonalities and varieties among/between such pedagogies. The authors regard such pedagogies intended to promote student motivation as "not innovative in the sense of being generated from scratch" (p. 29), and are frequently applied in subjects like language, business, political and ideological education. Intriguing here is the proposition that such pedagogies are relatively 'new' in the local context via multiple adaptations; that said, they are not locally created but 'borrowed' and later 'adapted' towards multiple ends (p.30). Furthermore, the authors highlight the domestic focuses on language teaching and business modules, as mirrored by the frequent updating and revision of pedagogies, e.g. task-driven pedagogy for English teaching at the tertiary level (Li, 2010).

To modify the aforementioned pedagogies for context-specific purposes, attempts at adaptation have been made. In terms of task-driven and problem-solving pedagogies theoretically underpinned by constructivism and innovative pedagogies, they are localised according to the traditional Chinese pedagogical practices, student learning habits, instructors' teaching abilities and professional curricula (ibid.). Such a phenomenon resonates with Kettle's (2020) emphasis on the impact of a nuanced cultural background on the diverse adoption of pedagogies. The authors conclude by reiterating the influence of adaptation of adopted pedagogies, which are further

adapted to the local education context (p.37).

From this review, an exhaustive grasp of pedagogic use and the underlying purposes of pedagogic innovation in Chinese HE, with CSKG in effect, starts to emerge. In summary, one can say that in response to the broad, and to some degree vague proposals of pedagogical use within CSKG, home HE practitioners have borrowed and localised pedagogies from the West, mainly as potentially fruitful pathways towards the listed goals. Subsequently, the adaptation of Western pedagogies in Chinese HE is essentially an ongoing process of understanding the Western paradigms underlying such pedagogies (most prominently constructivism, experiential learning and learner-centredness), and later efforts to reconcile such paradigms with the ontological and epistemological aspects at the local level. Unpacking the complexities inherent to such a localisation process is of scholarly significance. Moreover, dynamism within the pedagogic use in Chinese HE, alongside the evolving global HE community, warrants more up-to-date investigations. The thesis responds to the paucity of lecturer-centric research on pedagogy by attending to the bottom-up practices of lecturers who, at the forefront of pedagogic innovation, act as change agents amid China's efforts to keep its education system abreast of global changes while asserting its position in the global HE sector (Wang et al., 2019).

2.6.3 Construction of China's indigenous pedagogy: re-emphases on local onto-epistemological aspects

As discussed earlier, China's pedagogy was diversified and complicated by greater accessibility to foreign ones, as with domestic educational stakeholders' greater exposure to multiple epistemological resources for examining China's pedagogy, and established paradigms for constructing indigenous pedagogy with more rigour. Scholarly attention was elicited to accommodating the nuances between theories and practice, quality and quantity, and macro and micro aspects. Via deduction and induction endeavour, domestic stakeholders were aware of the sublimation of existing theories in developing a theory of China's own (Liu & Lin, 2008).

Consequently, construction of China's pedagogy at the tertiary level was initiated with reference to Western paradigms (Tan, 2017). In response to the emergent instructional needs in the new era, the construction of pedagogy gained momentum. The publication of the '*Teaching Syllabus of Education'* by the Department of Education of Beijing Normal University in 2016 stimulated much editorial enthusiasm in pedagogy books. In the first fifteen years, though, the Soviet pattern remained influential in mainly in content; the following 15 years witnessed the prevalence of independent construction and system initiation of China's pedagogy, raising it beyond the Soviet model and shifting its focus onto deep construction of discipline differentiation and integration of both traditional and novel methods for academic investigations (Deng, 2011). A set of quality pedagogy books were published with presentable content and theoretical depth.

For all such developments, the lack of originality remained an issue. This was attributable to the inadequacy of China's academic awareness compared to its Western counterparts (Deng, 2011; 2013), and more notably the challenges in appreciating the complexity of Chinese pedagogic discourse as it is entangled with both Chinese traditional discourse and Western discourse (Cheng & Xu, 2011).

Indeed, the commitment to paradigms elsewhere, though instrumental in updating the local one, appears mind-constraining in the long run. Fruitful pathways towards constructing China's indigenous pedagogy should, among other things, acknowledge, and then attend to, the richness within the locality in a dynamic fashion. Undeniably, China's pedagogy has made remarkable strides under the epistemological influences of the Soviet Union and Western countries, resulting in the prevalence of absorption of theories elsewhere. The absence of an original pedagogy based on China's reality has sparked heated discussion (Deng, 2011). Liu and Lin (2008), for example, call for ample consideration of China's reality so as to better combine pedagogy theories and practices. Nativism-based pedagogy theories, in this light, are mainly formulated by Xingzhi Tao and Heqin Chen, two home scholars.

The lack of a pedagogy of Chinese origin can be simultaneously ascribed to the gap

between theory and reality (Liu & Lin, 2008). The epistemological root would be, as they caution, the dominance of parochialism that separates theories from reality. It is thus recommended that such limitations be addressed by the joint efforts of home educational theorists and front-line partitioners in establishing fertile epistemological grounds for a pedagogy which, in the meantime, accommodates the realities of teaching and learning in China's context.

In further drawing upon Dewey's (1997) highlighting of distance as one key barrier for uniting theories and practices, education theorists should commit themselves to capturing practice realities; more specifically, pedagogy should embody both theoretical and practical considerations, when "represented in education practice and actualising themselves in education activities between people, The unity of pedagogy theories and practices is "just presented in and justified by participation and actualisation" (Ning & Hu, 2006, p.27).

The ongoing, heated debates on the disparities between Western and China's educational epistemologies underpinning the purported failure, or the unanticipated outcomes of adopting Western pedagogy in Chinese context, pervade. Such confusion echoes with the 'cultural craze' and a 'national studies craze' as natural products of the contemporary societal needs of revisiting the relationship between Western cultures and Chinese traditions (Tan, 2008), fuelling a polarised standpoint that Chinese traditional cultures should be re-interpreted, or partially overhauled, to accelerate modernisation, or equally 'Westernisation' (Yu, 2010; Zhang, 2011). Lai (2000), harbouring a more polarised view, sees Confucian-centred, Chinese traditional culture to be inferior to a Western one, as the latter features modern values and, subsequently, suggests brighter prospects for science, liberty and democracy. Chinese traditions, from such an anti-traditionalism standpoint, are seen as a hindrance for modernisation and should hence be subject to reconstruction. Undoubtedly, relevant rejections emerged - for instance, modernists repudiate its neglect of the many alternative routes to modernisation in harmony with the Confucian-centred cultures of East Asian countries; that said, Confucian cultures and modernisation are not

mutually exclusive (Levy, 1992; Littlejohn, 2010; Rošker, 2015).

Following this line of thinking, it can be argued that the epistemological dichotomy of West/East is increasingly blurred amid accelerating modernisation and internationalisation, and therefore too simplified to unravel underlying change mechanisms in the present context. The same applies to the nuclear concerns for Chinese educational stakeholders, theorists mainly, in constructing an indigenous pedagogical approach with regard to Chinese ontological and epistemological facts. As a result, the construction of an indigenous China's pedagogy was initiated in concert with reference to Western paradigms, and gained momentum in response to the emergent instructional needs in the new era. Subsequently, a set of quality pedagogy books were published with presentable content and theoretical depth.

2.6.4 Construction of China's indigenous pedagogy: the case of the production-oriented approach

Among the attempts to build a pedagogy of China's origin, English language education features prominently. Of note is the production-oriented approach (POA), as developed by Professor Qiufang Wen from Beijing Normal University. Driven by the aim of enhancing classroom-based English instruction at the tertiary level in Mainland China (Wen, 2017, 2018, 2024), POA serves as a novel instructional approach for language learning, with emphases on expanding learner repertoire in the target language, e.g., speaking, writing, translation and interpreting. More significantly, POA-based teaching starts with language production and ends with production, with input as an enabler for productive activities. Wen (2016) sees POA as especially suitable to young adult learners in mainland China, typically those with a relatively large amount of receptive knowledge but limited experience of using English for communicative purposes.

POA stands for a contextually enriched and informed pedagogy. In highlighting the need to raise it beyond the dichotomy of 'teacher' or 'learner-centredness' inherent to interpreting pedagogy, Wen (2013) cites 'learning-centred' pedagogy in promoting

teaching and learning outcomes in Chinese HE. This marks a noble intention to reconcile the seemingly contrasting underpinnings of China's and Western pedagogy, with the central argument that the focus should be repositioned on learning itself; no given form of pedagogy should be prioritised, so long as learning takes place. In addition to the general, practical profile of Chinese ESL/EFL learners, POA draws from the principles of learning-cerntredness, learning-using integration and whole-person education. While the second targets language education, the other two can be deemed more generic and merit discussion. Learning-centredness implies the need for instructors to deploy all possible means for maximum use of limited classroom time. Such a principle was introduced to China at the end of 1990s (e.g., Huang & Gu, 1996) and gained popularity afterwards, with emphasis on "activating processes of learning" (Wen, 2016, p.4) and entails an epistemological departure from learner-centredness accordingly.

Bringing to the fore the gradual marginalisation of the role of the teacher under learner-centred principles, Wen (2016) warns of the possibility of "downplaying the teacher's professional function as a designer, organiser and director of English instruction" (ibid., p.4). Arguing along the same lines with Kirschner et al. (2006) that learner-centredness renders inadequate the opaque differentiation between formal school instruction and informal learning under daily circumstances, Wen (ibid.) considers quality school instruction to be cautiously planned, effectively organised and professionally navigated towards higher efficiency.

The principle of whole-person education acknowledges the cognitive, affective, moral and ethical needs of learners as social beings, hence matching the overall aims of higher education in fostering socially developed and globally aware citizens. Higher education should then raise itself beyond the narrow focus of fulfilling instructional objectives, like promoting learner competence in the subject matter, to also see to the fostering of learner humanistic qualities, e.g. critical thinking, autonomous learning and overall humanistic qualities. Two major instructional strategies underlying whole-person education are provided, concomitantly, with regards to cautious selection of

topics and teaching materials conducive to learner "positive worldviews, intercultural competence, and social responsibilities" (Wen, 2016, p.5), and identification of an optimal way of organising learner activities, so as to create opportunities for learner development of team spirit, self-reflection and leadership skills.

It can be seen that POA, a newly developed instructional approach by a home scholar, is more intimately bound to local realities and able to challenge learner-centredness as a contested Western principle for teaching. Though still in its infancy, POA suggests the possibility of adapting certain principles/concepts preliminarily developed in the West, according to local epistemologies and ontologies. Its prioritisation of "learning-centredness", marking certain epistemological novelty in devising pedagogy, therefore uncovers the 'round trip' of flows of thought and, more precisely, education philosophies, between the West and the East.

2.7 Conclusion

This chapter has considered the complex, changing trajectories of educational philosophies and pedagogy in Chinese education broadly, and Chinese HE explicitly. China's pedagogy has undergone a complex process over the decades. Its fluid landscape is mainly guided by Confucianism in general and, more specifically, dynamics in Chinese HE. Such a process is further complicated by the backdrop of modernisation, globalisation and internationalisation Consequently, pedagogy in China is being diversified, complicated and constructed with Chinese originality.

On the other hand, a heightened awareness of retaining China's own heritage when examining and applying pedagogies elsewhere, is shared by an increasing number of domestic HE stakeholders. Experiments with pedagogies originating elsewhere, therefore, at the intersection of theory and practice, breed multiple pathways to actualise abstract, underlying epistemologies via bottom-up endavours by frontline HE practitioners. This is often undertaken in the form of adaptation, to reconcile foreign epistemologies with China's onto-epistemological aspects. Examinations of such adaptation of Western pedagogy, and in this study Project-based learning, is

contexualised by the internationalisation of Chinese HE as a dualism which, as Lin (2019) notes, features import and export, adoption and adaptation, hence anticipating both the opportunities and challenges of Chinese HE in the combination of Chinese and Western characteristics.

Confucianism underwent a complex course, beginning with China's being forced to open its door and become involved in enhanced communications globally which, in turn, facilitated its modernisation in the field of education. The infusion of Western epistemologies profoundly impacted contemporary perceptions of Confucianism, from outmoded, then complementary with Western thoughts and, more recently, revived as embodiments of indigenous Chinese culture, e.g., Wen, 2016. This is because China now aspires to assert its global profile. This also applies to the changing treatment of Western pedagogies and underlying epistemologies, from radical piety, repudiation, and more lately critical discussion and adaptation into China's onto-epistemological particulars (He & Zhao, 2023). Attempts are in place to develop genuinely 'Chinese' education theories and pedagogies, by domestic stakeholders (Deng, 2011).

The Chinese HE sector features prominently in the dynamic process of the unquestionable absorption and increasingly critical re-examination of Western pedagogy, considering the potent role it plays in rejecting potential cultural/educational homogenisation by the West. China's self-positioning as an emerging global force sparks much domestic interest in adapting, as opposed to complete borrowing, Western pedagogy, in reference to ontologies in Chinese HE, and more thorough development of pedagogies of Chinese origin. However, such efforts are rendered tenuous considering the blurred lines between Chinese/Western pedagogies and educational philosophies more generally, alongside China's deepening participation in modernisation, globalisation and internationalisation, which renders its epistemological re-construction via global interactions a natural product. Indeed, nowadays educational practices are affected by rapid, intensified global interactions, both materially and ideologically; this investigation into

adaptations and localisations of Western pedagogy, and Project-based learning as a case, sought to redress the over-simplified Chinese/West dichotomy or reductionist views of educational practices, to better appreciate the non-linearity and unpredictability of input/output in PjBL adaptation as manifestations of pedagogical innovation in Chinese HE.

This chapter has established the overall context for the study. It has depicted the adaptation of Western pedagogy as a complex process, mediated by contextual complexities which shall be better investigated from a complex, dynamic perspective. The next chapter will turn to Project-based learning as one such Western pedagogy, review pertinent scholarship, identify existing gaps and justify Complexity Theory and Cultural Script for Teaching as two conceptual lenses for the study.

Chapter Three: Conceptual approaches to pedagogy: the case of Project-Based Learning

3.1 Introduction

Recent years have been characterised by attempts from HEIs worldwide to cultivate learner hard skills, e.g., cognitive knowledge or professional skills (Vogler et al., 2018), together with soft skills, e.g., teamwork, effective communication and networking skills (Prada et al., 2022; Ragusa et al., 2022). Nevertheless, such goals are hard to achieve given the prevalence of didactic instruction where teachers serve as "the transmitters of knowledge", with learners as "the receptor of the information" (Alorda et al., 2011, p. 1876).

Consequently, learners might only be able to obtain a shallow grasp of disciplinary knowledge. This is especially true in research-intensive cases, where the development of learner research competence is prioritised over professional or transferable competence, which may lead to a mismatch between student learning gains from HE and volatile workplace requirements (Gracia et al., 2021). To tackle this issue, it is suggested that HE offers learners more opportunities for real problem-solving and knowledge construction under real-world contexts (Rahman et al., 2022) and equips learners with 21st century skills (Boss et al., 2011; Chu et al., 2017; Ross, 2012). One potential method is to implement project-based learning, which has gained some traction as it meets the need for education to adapt to a volatile environment (Boss & Clause, 2022).

There is increasing endorsement and application of PjBL in HE, coupled with an expanding literature on PjBL, which is largely concerned with student learning outcomes from such pedagogy. Few attempts have been made, however, to investigate instructor experiences with PjBL.

Therefore, this study intends to contribute to existing knowledge by revealing the ways in which project-based learning, as a Western Pedagogy, is adapted by lecturers

for pedagogic use in Chinese higher education. This is especially pertinent given the trajectories of borrowing and, more lately, re-considering and the selective use of Western pedagogies in Chinese higher education, as presented in Chapter 2.

Given the focus of the study on the situatedness of PjBL in Chinese HE, namely the ways PjBL is adapted locally, this chapter will review and critique relevant literature on project-based learning. The chapter is divided into seven major sections, and aims to justify, conceptualise, implement and investigate Project-based learning, from the underlying theories and definitions of PjBL, its application in practice, to justification of Complexity Theory (CT) and the cultural script for teaching as two conceptual lenses.

Navigated by CT and the cultural script for teaching, this study specifically seeks to explore the experiments with Project-based learning by lecturers in two higher educational institutions in Southwestern China, so as to further understand instructional practices with Project-based learning, a Western pedagogy, as an interactive and situated process with potential power dynamics and conflicts. The study also sought to generate implications of the construction of an indigenous China's pedagogy.

In so doing, this chapter begins by presenting and discussing the philosophical, theoretical and pedagogic bases of PjBL, definitions of PjBL, and the differences between PjBL and other learner-centric, Western pedagogies (e.g. problem-based learning), before moving on to empirical accounts of PjBL application globally and, more explicitly to this study, in Chinese higher education. Also emphasised is the current landscape of adapting PjBL in a Chinese context, and current gaps in the literature in section 3.3.2.4. The last section 3.5 ends the chapter by signaling the need for better combined theory and context in unpicking lecturer experimentation with PjBL as a Western, innovative pedagogy. This section also posits and justifies the research questions with which the study is concerned, regarding the justification of Complexity Theory and Cultural Scripts for Teaching as two conceptual frameworks of the study.

3.2 Philosophical and Theoretical foundations of PjBL

This section justifies the selection of PjBL for investigative purposes in this thesis, by discussing the philosophical, theoretical and pedagogical bases of PjBL, including Constructivism, Social Constructivism and Pedagogical Creed. As such philosophical bases are developed in the West, they further precondition PjBL as a Western pedagogy.

Extensive reading reveals, however, that the body of theoretical research on PjBL is limited, as substantiated by some meta studies. Helle et al. (2006), for example, in their evaluation of the pedagogical benefits associated with PjBL, demonstrate that the pertinent literature leans towards guidelines for PjBL implementation. The underlying pre-supposition that PjBL facilitates learning, therefore, precludes critical or theoretical appreciation of PjBL and how learning takes place with it (Dobrin, 2019). A more recent review by Goode, Jackson and Molesworth (2014) moves forward by examining the providence of projects within UK universities, with identification of the sporadic attempts to unpick pedagogic issues with PjBL and the relevance such projects would construct, between workplace and university experiences.

Despite the varied theories underpinning PjBL, it is possible to capture the philosophies/theories embedded throughout PjBL, e.g., John Dewey's Pedagogical Creed, Piaget's theory of Constructivism, Vygotsky's theory of Social Constructivism and Zone of Proximal Development. The four theories are mutually inclusive; however, Dewey's work can be captured in social constructionist learning theories which conceptualise knowledge construction as a form of social practice (Vygotsky, 1978). In a broad sense, such theories suggest a constructivist perspective of teaching in which, borrowing from Sambell, Brown and Graham (2017), the central is that knowledge "processed by the individual distributed within a community, is perceived as being actively constructed rather than passively transferred" (p.29).

3.2.1 Dewey's Pedagogical Creed and PjBL

PjBL finds its theoretical roots in the practical method by Dewey, which stresses

"learning by doing" (Dewey & Dewey, 1915). As such, Dewey is widely recognised as the founder of PjBL. "Learning by doing", to illustrate, prioritises ample opportunity for interaction opportunities, both discipline-related and socially, for learners to learn via experience (Reese, 2011); additionally, learners could improve personal investment by being involved in "real, meaningful tasks and problems that emulate what experts do in real-world situations" (Dewey, 1986). Illustrations can be found in *Pedagogical Creed*, that educational processes can be divided into two parts: psychological and sociological, both of equal significance. The two sides are mutually inclusive as "Without insight into the psychological structure and activities of the individual, the educative process will, therefore, be haphazard and arbitrary" (Dewey, 1897, p.3). The crux of Dewey's work rests on his investigation into the sociological side of the educational process, namely the cultivation of well-rounded learners and their "preparation for future life" with instructional emphasis on learners' "...full and ready use of all his capacities..." (ibid., p.6. Acknowledging learners as social beings, Dewey envisions a pedagogy conducive to both their longitudinal gains from education and to their personal developmental needs.

3.2.2 Constructivism and PjBL

The defining tenet of constructivism refers to the socially constructed nature of reality (Richards, 2003). There is therefore considerable connectivity among individual learners, their surroundings (e.g. other individuals, events), and pre-existing experiences; that said, the totality of knowledge regarding the world generally, or personally assumed 'reality' derives from accumulated interactions with surroundings and knowledge gained by the individual, with varied degrees of differences, e.g., beliefs, values and what counts as acquired knowledge as perceived personally (Hofer & Pintrich, 2012). Individual sensemaking of reality, consequently, affects their motivation, interests and pathways to learning.

Project-based learning finds its theoretical root in two major branches of constructivism theory, namely cognitive constructivism and social constructivism (Vygotsky, 1997; Dewey, 1986; Piaget & Cook, 1954). The former, associated with

Piaget & Cook (ibid.), is concerned with the ways learners build knowledge via personal experiences. The latter, favoured by Dewey (ibid.), focuses on learning via learners' social interactions and collaboration, stressing the importance of communication and community in such knowledge construction.

More specifically, for social constructivism, PjBL has its epistemological roots in Dewey's (1915) philosophy of "learning by doing." Such a philosophy is reflected in Constructivism (Perkins, 1991; Piaget, 1969; Vygotsky, 1978), which sought to illuminate that individuals construct knowledge via interactions with their situated contexts, and knowledge construction differs at an individual level. As such, learning takes place by individuals constructing new knowledge based on existing knowledge, via investigations, activities or conversations (Grant, 2002). Underpinned by Constructivism, PjBL views learners as "fully functioning persons", who can "learn how to learn" among a "community of learners" for personal "empowerment" (Rogers, 1951). Consequently, new learning is built upon existing knowledge (Kaufman, 2004).

3.2.3 Constructionism and PjBL

As earlier discussed, the epistemological grounding of PjBL is that knowledge construction takes place through individuals' interactions with their environment, with diversified personal knowledge construction (Piaget, 1991; Vygotsky, 1978). Such a process promotes knowledge construction by individual learners with reflections on their prior knowledge, alongside participation in investigative activities. Constructionism (Harel & Papert, 1991; Kafai & Resnick, 1996), in a progressive manner, attributes the best learning outcomes to learner construction of artefacts which could be shared and later revisited, e.g., poems, plays or pie charts. Of equal significance is that such artefacts should be personally appealing and meaningful for learners' active involvement. With emphasis on individual learners, PjBL as a learner-centric approach has the potential for individualising curriculum, instruction or assessment (Moursund, 1998; Uziak, 2016).

3.2.4 Zone of Proximal Development and PjBL

Also of relevance is Vygotsky's development of the Zone of Proximal Development (ZPD), as "the current or actual level of development of the learner and the next level attainable through the use of meditating semiotic and environmental tools and capable adult or peer facilitation" (Shabani et al., p. 238). That said, learners can rise beyond their personal ZPD for completion of more sophisticated tasks, via collaboration with higher-level peers or adults. In so doing, they could expand their ZPD and complete the same tasks later individually.

ZPD foregrounds the formulation of scaffolding that stands for the differences in instruction techniques used to assist in learners' greater content understanding, and ultimately enhanced competence in independent learning. By virtue of progressive levels of temporary support from instructors, learners gradually obtain the skills for task completion and take on responsibilities for personal learning, with decreased reliance on teachers. Flexibility is also allowed as teachers can customise support for different levels of learners, such as engaging higher-level learners in independent work, or stimulating collaborations between different levels of learners for mutual benefit; that said, the higher-level ones can further consolidate knowledge via clarification efforts, and the students in need, with appropriate peer guidance, could be competent in more sophisticated tasks (Kwietniewski, 2017).

3.2 Defining PjBL: views from researchers and practitioners

The section justifies the application of Project-based learning by lecturers as one potentially effective Western pedagogy for fostering learner knowledge acquisition and other comprehensive 21st century competencies/skills. The section intends to list a variety of perspectives from researchers and practitioners, with the view to highlighting the gap between theory and practice with PjBL, and the ways of conceptualising PjBL as a diffuse concept. Also, since PjBL is often referred to interchangeably with other learner-centric approaches, especially problem-based learning, the tenets which differentiate the two approaches will also be examined.

Given its emphasis on participation and practicality, with problem-solving at the centre, together with integration of multiple teaching/learning methods, PjBL helps achieve the educational goal of being 'learner-centred' and 'ability-centred.' (Muchlis et al., 2023).

Notwithstanding the current application of PjBL in K-12 education, vocational/adult education and higher education globally, project work first gained prevalence in vocational education, with Snedden's (1977) proposal of PjBL as a means of instruction in the subject field of agricultural science (Kibett & Kathuri, 2005). Such a concept borrowed from Dewey's delineation of a more eclectic form of module design (Dewey & Dewey, 1915) that considered learners' vocational and academic skills, as well as their "transferable life skills" (p. 82), e.g. cognitive and social skills. The additional skills and the enabling of transferability could be deemed core constructs within modern PjBL. Via showcasing the connections between theory and practice and engaging learners in authentic problem-solving activities, a PjBL approach deepens learner comprehension (Krajcik, Blumenfeld, Marx, & Soloway, 1994) and retention (Almazroui, 2022) of the subject matter.

However, considering the bountiful research on theoretical construction and implementation of PjBL, it indicates both clarity and confusion, and that PjBL carries elusive definitions, subject to varied sensemaking across multiple contexts and educational stages (Mills & Treagust, 2003; Thomas, 2000). Stoller (2006, p.23; 2012), in a similar vein, acknowledge the absence of a universally agreed definition for the constructs of a 'project', which subsequently showcases given levels of flexibility for instructional practices and research attempts with PjBL, yet simultaneously confounding those new to such approach. Indeed, new implementers of PjBL often espouses a partial adoption of PjBL (Marx et al., 1997), as challenges arise regarding the inclusion of PjBL-relevant techniques to their existing instruction (Capraro & Slough, 2009).

Having revisited the theoretical bases for PjBL, it is pertinent to explore the growing scholarship on PjBL, for identification of shared themes and later, for an exhaustive

grasp of its defining tenets. The overlaps and differences among such conceptualisations, by researchers and practitioners, reveal PjBL to be a synthesis of various instructional components and approaches (Al-Kamzari & Alias, 2025). Such tenets could also help differentiate PjBL from other learner-centric learning, e.g. problem-based learning. The following section, then, sets out to marshal the diversified conceptualisations of PjBL by researchers and practitioners.

3.2.1 Researchers' conceptualisation of PjBL

Thomas (2000), from the researcher's perspective, reviewed relevant scholarship and identified five essential features of projects in PjBL, namely; centrality to the curriculum, focus on driving questions, engaging learners in constructive investigations, allowing for learner autonomy and carrying realism. Also emphasised are the significance of learner collaboration, reflection, redrafting and presentations (Kwon et al., 2014; Patton, 2012, cited in Kokotsaki et.al., 2016). The defining feature of PjBL is learners' construction of a "concrete artefact" (Helle et al., 2006) as an end product, which showcases learners' updated understandings, knowledge and attitudes surrounding the subject under investigation (Holubova, 2008).

It is worth noting that within such conceptualisation, projects should be central to the curriculum. This is supported by Kingston (2018); though undertaking projects as peripheral to the curriculum is completely possible, as this leaves room for independent learning by students and aids in time constraints within classroom-based instruction, such marginal treatment of projects does not constitute genuine PjBL.

Published around 25 years ago, Thomas' (2000) conceputalisation of PjBL gains wide scholarly recognition and application. Echoing with Thomas' (2000) review, a similar set of features of PjBL are offered by Craig and Marshall (2019), as shown below:

(1) Begins with a driving question or challenge that provides context and drives instruction,

(2) Aligns with significant content learning goals,

(3) Incorporates 21st century skills,

(4)Facilitates in-depth inquiry that allows the student to explore the content,

(5) Multiple opportunities providing student choice and voice,

(6) Provides multiple opportunities for self-critique and assessment, and

(7) Results in the presentation of a final product to a community audience (Larmer & Boss, 2015; Craig & Marshall, 2019).

Such features build extensively on Thomas' (2000) review and have been only rephrased and regrouped to accommodate the changes within the terminology. As such, learner involvement in determining, to some degree, their projects and the ways of project completion is stressed. Authenticity of the project is also left unspecified, while the suggestion that projects providing context, and potentially adding to learners' 21st century skillset, suggests authenticity to be an implicit feature in PjBL.

In stressing the creation of tangible artefacts as the defining tenet which differentiates PjBL from other learner-centric pedagogies, e.g. problem-based learning (Blumenfeld et al., 1991; Helle et al., 2006), Krajcik and Shin (2014) call for learner collaborative work for solutions to real-world problems, accompanied by integration, application and construction of knowledge. Instructors, with other external members, perform more as facilitators to offer feedback and support to learner projects.

Another oft-cited definition of PjBL is provided by Larmer and Mergendoller (2015), in view of extensive research on PjBL. Eight core features of PjBL are included. Slightly different from the aforementioned ones, more core features of PjBL are listed, with recognition of authenticity, learner voice and choice - though conferring more spaces for authenticity as real-world relevance is favoured rather than required, thus stressing learner interests in project selection. Furthermore, the omission of learner collaboration indicates the acknowledgement of projects done by individual learners; project relationship with the module, additionally, is also left unspecified, suggesting flexible inceptions and time allocation for projects.

3.2.2 Practitioners' Conceptualisations of PjBL

Having considered researchers' conceptualisations of PjBL, the space between theories and practices with PjBL can be captured in different conceptualisations of PjBL by practitioners. Bender (2012), for example, sees PjBL as "using authentic, real-world projects, based on a highly motivating and engaging question, task, or problem, to teach students academic content in the context of working cooperatively to solve the problem" (p. 8).

In line with researchers, such definition centralises the use of projects and the authenticity of projects, while acknowledging the possible multiple forms of projects, e.g. a task, a driving question as the basis of project work by learners. Also, such a definition suggests the function of project in academic content is imparting, via learners' collaborative work.

Meanwhile, some practitioners harbour a more general stand towards PjBL. Teaching stuff from Monash university, Malaysia, for instance, incorporated project work into its engineering programme and assumed PjBL-based instruction so long as the "project is the dominant activity" and "students access content when required, but the teacher prepares much of it" (Mills & Treagust, 2003, p. 11). Such a definition similarly centralises the project to the instruction as the 'dominant activity', while somehow marginalising learner interaction with the subject content in the completion of projects. This parallels the views of some researchers; Prince and Felder (2006), for instance, see the intent of PjBL in the completion of a tangible end product, highlighting the application, rather than acquisition, of knowledge. Also, the two practitioners acknowledge the progress of project work: starting with an assignment, which later feeds into more specific tasks for final project production. Such a definition, likewise, allows for much flexibility in the form of the projects, the relevant tasks or assignments, and invites learners into the process of selecting and designing projects towards 'nearly complete autonomy' (p.130). The final project is left unspecified with broad suggestions, e.g., an oral/written report of the project process and outcome.

Some studies have delved into the learner-driven and authenticity aspects of PjBL. The review of literature by Hasni et al. (2016), though limited to PjBL use in science and technology education, allows for a more holistic understanding of the constructs of PjBL. Among the 48 articles reviewed, the most frequently cited construct is an authentic problem/question, followed by other constructs like learner involvement in investigation/design activities, the completion of an end product/artefact, learner collaboration and the adoption of learning technologies. The findings demonstrate, intriguingly, an exclusion of the project as an integral unit to the curriculum.

3.2.3 A definition of Project-based Learning developed for this study

As illustrated in sections 3.2.1 and 3.2.2, ambiguity exists among researchers and practitioners concerning the key constructs or design principles of PjBL (Condliffe, 2017; Hasni et al., 2016). Also, a considerable overlap exists between such conceptualisations, suggesting a good deal of shared understanding of what counts as core features of PjBL. Thus, this section acknowledges the fluidity within PjBL conceputalisation, and PjBL as a highly adaptable approach. It has also exploited and reconciled the contrasting concetpualisation of PjBL, towards a working definition of PjBL for this study.

A general, relatively panoramic conceptualisation of PjBL arises from the aforementioned sources, which serves a working definition for the thesis.

Firstly, PjBL serves a learner-centric, inquiry-based instructional method, with learners integrating, applying and constructing their knowledge as they formulate solutions to complex problems via collaboration (Guo et al., 2020).

Secondly, PjBL entails stimulation of learner engagement in a project as its core (Trilling & Fadel, 2009, p.97). Projects begin with a driving question, which, being a hallmark for PjBL, directs subsequent instruction, guides project-relevant activities and should be seen by learners as relevant and meaningful (Blumenfeld et al., 1991; Schneider et al., 2002).

Differing from passive learner participation in teacher-led activities, PjBL engages learners in the project as an essential activity for development of skills (Sathappan & Gurusamy, 2021) and competencies, including problem-solving, collaborative learning and decision-making (Setiyadi et al., 2023). PjBL features learner autonomy, cooperation, communication and reflection under real-life circumstances (Kokotsaki et al., 2016); that said, learning is triggered more by a students' "I need to know" than by a teacher's "you should know" (Lenz et al., 2015, p.68). Hence, during the project the teacher acts more as a guide (Greenier, 2020; Morrison et al., 2021).

Thirdly, although it is multiplicity contained and discipline-dependent, PjBL should culminate in a final artefact or product (Craig & Marshall, 2019; Hasni et al, 2016; Kokotsaki et al., 2016; Prince & Felder, 2006). Moreover, PjBL-based projects should be authentic, or at least carry real-world relevance beyond mere classroom-based applications. As such, meaningful learning and skill development are strengthened (Rofieq et al., 2019).

The aim of PjBL lies in enabling both learner acquisition of knowledge and development of life-enhancing skills (Barron & Darling-Hammond, 2008), and that learners should learn by solving complex projects than learn abstract definitions (Maros et al., 2023). Additionally, modern technology constitutes both a content and tool in projects; though the integration of educational technologies with PjBL seems desirable in boosting learner academic achievement (Branch, 2015), this does not constitute a defining tenet of PjBL considering the varied educational circumstances and the vague meaning of 'technology'. Furthermore, the absence of mandated teaching methods for PjBL, suggests that PjBL could be applied in conjunction with other pedagogic approaches as the instructors see fit.

Such a working definition of PjBL, in critical consideration of views from both researchers and practitioners, indicates much flexibility for PjBL's practical implementation. There is, firstly, no prescribed time duration for projects, which, though integral to PjBL-based modules/curriculums, could last only over a few modules (AI-Balushi & AI-Armrin, 2014) or a whole academic semester duration

(Mills & Treagust, 2003) according to the project aims and resources available. Secondly, in terms of time allocation, the project could be central, or marginal to the module, occupying some in-class time or as an extra-curricular addition; alternatively, the project time can be scheduled within the school day, yet beyond scheduled classes. There will continue to be, deductively, room for PjBL adaptation in different contexts.

This section draws from the multiple definitions surrounding PjBL, towards formulation of a 'working definition' to be applied in this study. The following section will focus on the theoretical/philosophical aspects of PjBL.

3.2.4 PjBL and Problem-Based Learning

This study sought to examine the ways PjBL, as a Western pedagogy, is adapted in Chinese HE. For clarification purposes, it is necessary to separate PjBL from other Western pedagogies, especially problem-based learning, though the two are often associated and confused. Indeed, the two pedagogical approaches overlap significantly, as both aim to promote learner independent learning in a constructivist fashion (Kokotsaki et al., 2016; Mills & Treagust, 2003). There is a shared requirement, therefore, that work be both learner-centric and fit into the wider frame of inquiry-based learning (Al-Balushi & Al-Aamri, 2014; Barak & Dori, 2005; Kokotsaki et al., 2016); more notably, both stress the authenticity of project/problem and engagement of learners under real-world circumstances, so as to facilitate disciplinary learning and cultivation of comprehensive competencies for developmental goals in wider settings.

Nonetheless, the two also differ considerably, given the central goal of higher education, in fostering capable individuals for workplace challenges via providence of innovative education, and thus contributing to overall social development (Crosling et al., 2015). The focus on innovation then points to the approaches that promote learner autonomy as preferable (Mart et al., 2017), e.g., PjBL. In view of the studies on the differences between the two approaches (e.g. Helle et al., 2006), the treatment of

knowledge is crucial; having said that, while problem-based learning emphasises knowledge acquisition and application, PjBL tends more towards application of acquired knowledge for construction of new knowledge (Mills & Treagust, 2003; Perrenet et al., 2000; Prince & Felder, 2006).

The flexibility in definitions for 'project' in PjBL and 'problem' in problem-based learning, respectively, provokes attempts in combining the two for hybirdised teaching models (e.g. Prince & Felder, 2006). Structurally, the two differ greatly as projects must be central to PjBL-based modules/curriculum, but problems in problem-based learning could be attempted for multiple ends throughout the process (Carrió et al., 2011). PjBL is, therefore, often viewed as constituting longer term (Perrenet et al., 2000) projects ranging from a few weeks (Bender, 2012) to a complete semester (Kunberger, 2013; Prince & Felder, 2006). There is, in comparison, less discreet discussion on the timelines for problem-based learning, with problems occupying flexible durations.

This section has considered the multiple theoretical bases for PjBL as an approach to conceptual knowledge and comprehensive competences. It has stressed that PjBL's constructivist view of learners challenges the common views of practitioners long accustomed to teacher-centric approaches. It has also distinguished PjBL from problem-based learning for clarification purposes. The next section turns to empirical accounts relating to PjBL in higher education, both globally and locally in China.

3.3 PjBL in Chinese higher education: inception, research and application

Since this thesis argues that PjBL is relatively new to Chinese HE as a Western export, the PjBL-relevant literature will help place this thesis within its broader literary context, showcasing the complex course of how PjBL was introduced, theorised, implemented and adapted in Chinese higher education. Prior to exploring PjBL in China, the section will contexualise the study within its wider context of PjBL application in global higher education.

3.3.1 PjBL in global higher education

As HEIs prioritise the fostering of learner research skills over professional or transferable skills, a gap exists between inputs from higher education and workplace requirements (Holmes, 2012). A viable solution to such an impasse involves providing more opportunities for learners to engage in problem-solving and knowledge construction under real-world circumstances; for instance, via the use of Project-based learning.

Historically, PjBL, with its multiple configurations, e.g. project-based instruction, project work (Beckett, 1999), project approach (Levis & Levis, 2003), and project-oriented approach (Carter & Thomas, 1986), was first introduced by David Snedden to science education in American vocational classes, and was soon afterwards popularised for instructional purposes by Kilpatrick via the Project Method (Kilpatrick, 1918), with frequent use and examination of projects (Marx et al., 1997; Krajik, 2001). PjBL then penetrates language education alongside stronger emphasis in learner-centric learning, collaborative learning and autonomous learning (Beckett, 2006; Mohamad & Tamer, 2021). Its application is increasing in multiple subjects, more frequently science (e.g. Rogers et al., 2011; He et al., 2023) and mathematics (e.g., Han et al., 2015; Holmes, & Hwang, 2016; Rehman et al., 2023).

Notwithstanding the purported popularity of PjBL across all grade levels (Bender, 2018), and particularly its steady progression in K-12 education over the decades, overall PjBL-relevant scholarships in higher education has been left behind (Lee et al., 2014); that said, PjBL has not yet been incorporated into HE systematically, though it has occupied a noticeable space in engineering education (De Graaff & Kolmos, 2007), and been undertaken as a major teaching method in given HEIs keen to innovate pedagogies, e.g., University of Toronto, Twente University in the Netherlands and Aalborg University in Denmark. PjBL implementation, viewed globally, is either completely neglected or confined to an irregular or limited basis in other HEIs (Giawa, 2021).

Such sporadic adoption of PjBL in higher education is intriguing, running counter to the expectations of proponents of the method, given its suggested potential (Lee et al.,

2014). Moreover, geographically, the application of PjBL in Asia (e.g., Jo, 2011; Yamada, 2021; Yoon et al., 2023) seems far more limited compared to Western contexts.

Still, a few review studies have examined landscapes of PjBL adoption in global higher education. Helle et al. (2006), for example, analysed the implementation of PjBL and how it affects learning outcomes. The authors identified that relevant studies had predominantly focused on PjBL practice in relation to module descriptions, e.g. module scope, learner team size and instructor requirements. This is also the case with the research on the impacts of PjBL on learning concerning both cognitive (e.g. knowledge) and affective outcomes (e.g. motivation). Chistyakov et al., 2023, focusing more explicitly on PjBL in science and STEAM education, found that PjBL was successful in enhancing development of learner knowledge and skills, together with enhancement of group-based negotiation and collaboration as perceived by learners, though simultaneously with learner reports of demotivation for group work. In a similar vein, Sales et al. (2021) conducted bibliometric analysis on PjBL-relevant scholarship in engineering education, revealing that most of this scholarship concerns itself with undergraduate levels, with case study as the most common approach. Alongside this, some research reports on positive outcomes in learner academic knowledge, skills and motivation via PjBL, and reported difficulties with such an approach (e.g. extra investigation of time and energy.

The review by Kokotsaki et al. (2016) depicts the broader picture of PjBL use across multiple educational levels, from pre-school to higher and pre-service teacher education. For reviewed inquiries at the tertiary level, most focus on engineering education (e.g. Ruikar & Demian, 2013) and some set out to trace the enabling aspects underlying PjBL (e.g. Stewart, 2007). Also discussed is the facilitative role of PjBL in cultivating comprehensive competencies such as problem-solving, pre-service teachers (Mettas & Constantinou, 2008) and the use of formative assessment as a preference (e.g. Frank & Barzilai, 2006).

Of special note is the most recent review of PjBL use in HE, by Guo et al. (2020),

which allows for a more up-to-date appreciation of the PjBL-based landscape. Focusing on student outcomes of PjBL and related measurements in HE, it was revealed that most research delves into leaner knowledge, strategies and skills during the PjBL process as embodiments of their learning outcomes, and that PjBL is empirically proved to be conducive to the development of learner content knowledge (e.g. Mohamadi, 2018), motivation (e.g. Helle et al., 2007; Shin, 2018), learning strategies (e.g. Barak & Dori, 2005; Stefanou et al., 2013), skills (e.g. Wu et al., 2018) and product quality (e.g. Torres et al., 2019), which are later subject to an array of measurements such as self-reported questionnaires, tests, interviews and artefacts. It has also been noted that the evaluation of products is not given due attention, despite the final products being central to the PjBL approach. Also highlighted is the inadequate rigour among the scholars reviewed, for example the lack of reliability/validity among quantitative studies and, likewise, the lack of quality checks among qualitative ones. Additionally, PjBL's impact on learning remains inadequate, given the lack of appropriate research designs. The authors conclude with proposals for more empirical research aimed at unpacking the merits of PjBL on various learning outcomes. Though providing valuable empirical accounts on PjBL use at the tertiary level, such a body of research overwhelmingly focuses on learner experiences.

This section has examined PjBL-relevant, international literature. In the next section I move on to review the domestic literature on PjBL, to justify the study with an identification of the existing gaps.

3.3.2 PjBL-relevant scholarship in China: an overview

PjBL-relevant research started later in China - in 2005 - with its theory and practice developing rapidly shortly afterwards (Chu et al., 2017). At present, PjBL has gained some traction in the field of educational research, with the application of teaching multiple tertiary disciplines (Lin et al., 2023).

Overall, the body of PjBL-relevant, domestic scholarship can be grouped into three

categories, namely, 1) the potential utility of PjBL in Chinese higher education, from the perspective of cultivating student 21st century competence; 2) theoretical discussions of PjBL and 3) empirical insights of implementing PjBL in Chinese HE

3.3.2.1 Cultivation of 21st century skills: the pedagogical potential of PjBL

During the 21st century there has been frequent discussion on the nature of education and the function it serves. There has been considerable educational scholarship which has made attempts to discern the set of 21st century skills awaiting purposeful cultivation by educational institutions, so as to nurture learners capable of responding to, or shaping, future conditions (Wongdaeng & Hajihama, 2018).

Exploration into such scholarship sheds light on the most common themes of 21st century competencies, e.g., critical thinking, creative thinking, systematic thinking, team-based working, collaboration, problem-solving and cross-cultural and cross-disciplinary communication (Rehman et al., 2023). Such competencies are given great significance as enablers of full participation in current/future society, thereby profoundly strengthening the overall profile of nations. Critical thinking, problem-solving, team-based work and collaboration in particular have become widely acknowledged hallmarks of social development and innovation. Such skills, however, are not necessarily imparted via traditional, teacher-centric methods (Ravitz et al., 2012).

China represents an especially interesting case for investigation, considering the reported mismatches between the training outcomes of its HE and the workplace needs, mainly with regard to managerial skills and communication (Stapleton, 2017). However, the development of 21st century skills at the tertiary level is widespread globally; especially in the West where ‘employability skills’ and ‘generic skills’ are much stressed, feeding into ideas for pedagogical approaches which aid the development of competencies such as adaptability, creativity and critical thinking (Ghafar, 2020). Such favourable approaches are often inquiry-based and learner-centric (Bai & Song, 2018; Chu et al., 2021).

Concurrently, as discussed earlier, the dominant pedagogical approaches in China are largely teacher-centric, with emphasis on knowledge acquisition via rote memorisation, attributable to the rich cultural/educational heritage rooted in its former Imperial system. International scholarship tends to view Chinese education as largely passive, where teachers serve the authority and learners are the recipients of information. Such a taken-for-granted scenario, however, suggests a hindrance to the cultivation of 21st century skills, as "critical thinking involves recognising and researching the assumptions that undergird our thoughts and actions" (Brookfield, 2005, p.1).

Thus, teacher-centric pedagogic approaches do not appear to promote the development of critical thinking. In such cases, self-directed learning (Knowles, 1975) seems promising by encouraging learners to be self-directed, applying personal life experiences towards better comprehension and tackling of problems. Teachers, serving more as facilitators, negotiate learning activities with learners who base personal learning on curiosity, with the aim of constructing a trusting atmosphere and identifying solutions. Techniques under such circumstances take on varied forms, e.g. formal, informal or non-formal, and aim to consider theories or concepts which may later move learners beyond rote memorisation towards 'higher order' thinking. In so doing, a learning contrast is in place that drives learners to be self-guided during learning processes, rather than facing a rigid line of lecturers, assignments or tests (Knowles, 1976). Learners are simultaneously offered access to their communities (e.g., peers, teachers as facilitators, or even subject experts) for external feedback and, in this scenario, are prepared for life and career-centric settings necessitating prompt, rational responses to uncertainties. Given such a positive relationship between self-directed learning and cultivation of comprehensive skills, China's Thirteenth Five Year Plan, as another case in point, also highlights the importance of life-long learning (Department of Education and Training, 2017); pedagogic approaches supportive of self-directed learning have gained recognition among HE stakeholder in China, as assisting learner job-readiness and life-long learning (Zhu et al., 2017).

PjBL presents one such fitting pedagogy.

Being learner-centric and inquiry-based in nature, PjBL has been empirically proven conducive to learner disciplinary/conceptual knowledge, motivation and other competencies (Darling-Hammond & Friedlaender, 2008; Thomas, 2000). Along with the problem-solving and critical thinking embedded within it, PjBL holds the potential to promote learner higher order skills, e.g., creativity and innovation, for today's knowledge-driven economy (Krajcik et al., 2008). With its problem-solving and critical thinking aspects, PjBL addresses a widely recognised need for stressing higher order skills (e.g. creativity and innovation) over lower-level ones (e.g. fact-memorising and procedures-repeating) (Krajcik et al., 2008; Lesh & Zawojewski, 2007). In other words, when applying critical thinking to process information, more predictable, comprehensive learning outcomes can be realised (Hughes & Lavery, 2015; Li et al., 2019). One can then presume that the instructional focus of PjBL aligns with the cultivation of 21st century skills, which, according to Voogt and Roblin (2010, 2012), stand for "competencies in the areas of communication, collaboration, ICT [Information and Communication Technology] related competences and social and/or cultural awareness.", and that competencies of "creativity, critical thinking, problem-solving, and the capacity to develop relevant and high-quality products" (p. 308) are widely acknowledged as essential 21st century competencies.

Consequently, considering the positive linkage between PjBL and the fostering of 21st century learner skills, PjBL could, in theory, serve as a favourable instructional approach in Chinese higher education. The next section moves on to examine PjBL application and research in the local context.

3.3.2.2 Introduction of PjBL to Chinese higher education

Despite its long development in a Western context, PjBL represents a relatively novel pedagogy in China (Guo et al., 2023). The introduction of PjBL to China dates to 1918, when it gained some traction in engineering and architectural education (ibid.).

The application of PjBL in Chinese higher education, like elsewhere, also occurred

subsequent to its application in elementary and secondary education (Lyu, 2023). Domestic research on PjBL, however, commenced much later in China, with noticeable expansion since 2006.

Following such landmark, initiative research on PjBL, the body of PjBL-relevant research expanded in Chinese academia, noting PjBL as useful in learner autonomous learning and motivation in English learning (e.g., Feng & Shen, 2018; Zhao et al., 2024).

Taken together, domestic research on PjBL can be grouped into three categories; theoretical inquiries into PjBL, including its tenets, theoretical underpinnings, connotations and practical significance, e.g., Chen, Chen & Yu, 2018, the application of PjBL as useful in learner autonomous learning and motivation in HE, e.g., Wang, 2025; Zhang et al., 2024, and purposeful use and adaptation of PjBL into given disciplines, e.g., Luo, 2023; Wei, 2024; Yang, 2020.

3.3.2.3 More recent research landscape on PjBL in Chinese higher education: disciplinary application, adaptation and localisation

A more exhaustive, up-dated grasp of the landscape of PjBL in Chinese higher education can be achieved by looking at Chinese research databases, e.g. CNKI (China National Knowledge Internet).

Notably, there has been a significant burgeoning of PjBL-relevant scholarship over the past decade, with explicit focuses on discipline-specific, empirical practices of PjBL, assumptions of its suitability to the teaching of different subjects and providence of PjBL models. Given the explicit investigative focus on PjBL rather than 'PBLL' (project-based language learning), over the decade from 2013 to 2023, a total of 1053 research articles were retrieved with 'project learning' as the broader category and 'PBL', 'PjBL' and project-based learning as sub-categories, showing a steady upsurge of research interest in PjBL since its introduction to China as a new pedagogy/instructional method.

Via such targeted, preliminary search and the following extensive reading, it was found that most scholarship either comprises anecdotal practitioner reports, or lacks rigour, given its inadequate literature review, length or over-simplified discussion (Zhao et al., 2017). The search then narrowed down to the key academic journals as recognised by the PKU index (a domestically recognised interdisciplinary citation index of key journals) and CSSCI (Chinese Social Sciences Citation Index, another such index in China, developed by Nanjing University of China Academy of Social Sciences Research Evaluation Centre), with retrieval of 106 studies for review purposes of the study. The studies selected were then grouped into four categories, as shown below.

The first category centres on theoretical exploration of PjBL .

The overwhelming body of domestic scholarship on PjBL is concerned with pedagogic practices rather than theory exploration, evidenced by the attempts of most scholars in mere introduction of PjBL without theoretical discussions (e.g., Chen, Chen, & Yu, 2018; Ge et al., 2025). Understandably, the intention of showcasing application practice is pronounced, yet the omission of theoretical underpinnings of PjBL dilutes the overall rigour of such studies; more theory-grounded work on the topic is thus warranted.

A few domestic scholars have attended to both the theoretical and application dimensions of PjBL, but with explicit focus on project-based language learning. Gu (2007), for example, unraveled the impacts of technology-integrated PjBL on language education and highlighted the favourable outcomes of PjBL implementation in boosting authentic language communication, ample input and output in the target language, thinking and language enabled by multi-channel feedback and, simultaneously, development of learner motivation, autonomy and collaboration.

The second category relates to discipline-specific application of PjBL.

Overall, PjBL application in Chinese HE in a non-Western context undergoes a complex course, and implementing PjBL as a Western pedagogy is often considered

an innovative practice (Dai & Xia, 2024; Wang, 2020). The first application of PjBL in Chinese HE can be traced back to Gu and Fang's (2003) systematic experiments at Suzhou University, supported by technology; the focus was on motivating learner active participation, learning and reflection with projects. Some positive results were generated by the two-year programme of PjBL adoption in the teaching of German at Tongji University, which later fed into systematic discussions on the merits of PjBL and the advocation of further integration of PjBL into traditional test methods (e.g. Huang, 2004). Also stressed were the perceived challenges with PjBL with respect to learner confusion and characteristics. Gu Peiya, another notable figure of PjBL application in China, produced much PjBL-relevant research with generic discussions on the tenets, guiding principles and application procedures of PjBL (Gu, 2007). Gao (2010) was the first to integrate PjBL into College English education, reporting positive outcomes in learner motivation, collaborative learning and competence in the target language.

Over the past decade, the body of PjBL-relevant research has expanded in Chinese academia. PjBL was heralded as pedagogically effective in promoting learner comprehensive competence (e.g., Wang, 2021; Han, 2021).and critical thinking (Zhang & Gao, 2025). Applications of, and research on, PjBL has largely centred on Engineering education and language education, taking the form of 'project-based language learning', such as College English (e.g., Chai et al., 2025; Luo, 2024), oral English (e.g., Ma, 2021) and English major education (e.g., Yang, 2017).

Though it occupies a more visible position in language education, PjBL has gained some traction in other disciplines as well, including Physics (e.g., Wang et al., 2023; Jiang, 2023), Chemistry (e.g., Li, Wu, & Huang, 2015), STEM education (e.g., Chen, 2022), Psychology (Hou & Wu, 2022), Programming Language (e.g., Wang, 2018), Engineering (e.g., Wang, 2023; Yang, 2020), English writing (e.g,, Wei, 2024), Computer Science (e.g., Ren et al., 2020) and, more recently, moral education in college English education (e.g., Zhang et al., 2024). Li (2019) incorporated PjBL into the module Advanced Materials Thermodynamics against the latest backdrop of 'New

Engineering Education', which feeds into a paradigm for effective PjBL implementation in conjunction with other approaches. Two other studies have examined PjBL application in pharmacy education (Chu & Zhu, 2022) and civil engineering (Jiang & Yang, 2014) respectively.

Zhang et al. (2021), to illustrate, see PjBL as complementary to the downsides within traditional pedagogic approaches prevalent in business education, mainly in terms of the wider coverage/application of PjBL in cultivating well-rounded talents. Guidelines are further provided for the classroom-based, concrete application of PjBL, with emphasis on the changing roles of instructors and learners and PjBL process in one specific module, *Digitalised Accounting*. The authors concluded by anticipation that, in so doing, learners would be given platforms on which to develop classroom participation and competencies in deep and autonomous learning, as well as creative and critical thinking.

To date, PjBL application and research have pretty much leaned towards English or Engineering education, leaving its status in other majors quite opaque, e.g., teacher education. The current study thus sets out to consider PjBL in teacher education, with a view to enriching the domestic scholarship on PjBL.

The third category relates to empirical insights with learning outcomes from PjBL.
Learner experiences, especially learning outcomes with PjBL, constitutes another major theme within the scholarship reviewed. Sun et al. (2019), for example, conducted a PjBL-based Microbiology experiment programme at Shanxi Normal University, following a holistic process of PjBL from module setting to learner presentation of their project outcomes via a project report and research paper. After such two rounds of experimentation with PjBL, positive outcomes were found in relation to learner accumulation of disciplinary knowledge, development of collaborative learning and critical thinking and, most notably, enhanced acumen in academic research. The researchers concluded with possible viable solutions to strengthening learner autonomous learning with PjBL and the necessity of balancing PjBL-based programmes with daily lecturing.

Niu (2023), integrated PjBL with service-based learning for the education of Applied Psychology, noting the development in learner satisfaction, communicative competence, information processing and, most remarkably, innovation in the subject matter, which directly contributed to their employability upon graduation.

Such accounts around PjBL have, predominantly, focused on learners' learning outcomes with such pedagogy. The overall implication, however, is that fruitful PjBL implementation hinges, on one hand, on both institutional hardware/software support and, on the other hand, on instructors, as individuals, making sensible decisions to accommodate instructional and learner needs. To appreciate PjBL in Chinese HE more holistically, there is a need to consider lecturer experience with PjBL, to which the current study is a response.

The fourth category is concerned with adaptation and localisation of PjBL, towards formulation of a local model.

In view of the positive evidence with PjBL and its considerable mismatch with the local instructional contexts, clear attempts have been made by domestic scholars to single out PjBL as a potential approach. Dong and He (2019), for example, discuss PjBL application in Chinese HE with identification of pre-requisites, e.g., classroom spaces, faculty and repertoire of learners as competent adults. Some guidelines are also provided to assist in instructor practice with PjBL, such as due attention to the transferring of the learner/instructor role under PjBL-based circumstances, striving for more diversified classroom dynamics and timely building of learner collaborative work. That said, instructors, shouldering the dual role of both knowledge transmitter and facilitator to learner projects, should attend to the process of artefact production by learners, with adoption of more hybrid means of assessment that encourage learner reflection. Also highlighted are the seeking of balance between PjBL and traditional pedagogic approaches, instructor-learner and learner-learner relationship, and in-class and outside-class time.

Zhang (2011), from a more accurate standpoint, delved into the features, micro

contexts and aspects of PjBL towards formulation of a localised PBLL model for EFL education in China, emphasising language, content, abilities and emotional aspects, in conjunction with multiple other modules. Also suggested is the potential that such a model, when applied efficiently, could promote learner improvement of other competencies as well.

Formulation of a local model on PjBL: the iPBL model

Later in 2015, Zhang formulated a more detailed PjBL model, namely innovation-oriented project-based learning (iPBL) for the teaching of English major Education under China's current EFL circumstances. Oriented towards cultivation of learner innovations with modules being the project and projects being part of the module (p.21), efforts were made to integrate Project-based learning and research-oriented learning. Six milestones within the iPBL model were set, to establish project implementation as conducive to learner development of comprehensive competence, e.g., competence in English as the target language, innovation, critical thinking and other crucial skills. In acknowledging the local aspects of Chinese HE, such studies demonstrate the potential of adapting PjBL with the provision of frameworks. Of special note was the use of projects geared primarily towards enhanced input and output of English as the target language, yet with the broader goal of fostering learner sensibilities in conducting quality research. Additionally, Zhang highlighted the dual role of the instructor as the facilitator and provider of knowledge necessary for learner completion of projects, with specific guidelines at each phase of iPBL.

Adaptation and localisation of PjBL: a context-responsive endeavour

As suggested earlier, domestic accounts on PjBL in Chinese HE are, overall, concerned with College English education, English major education or other application-oriented majors, e.g. engineering. Wang et al. (2023), to illustrate, localised PjBL in reference to output-based education, a guiding teaching philosophy in engineering education. The overall process was divided into topic selection, formulation of learner project groups, design and implementation of projects,

followed by project summary, presentation and assessment. Special attention was paid to project design and implementation. That said, after each lecture, learner project groups were required to set questions for the whole class, followed by question explanations. Mixed results were reported, such as strengthened learner motivation, grasp of disciplinary knowledge, competence in collaboration and oral expression. On the other hand, the scholars were aware of the instructional challenges to lecturers in developing learner project work.

Equally notably, PjBL adaptation has taken a dynamic profile in relation to the changing requirements and focuses of pertinent educational regulations. An illustration would be the study by Liu and Zhang (2023), which incorporates the PjBL model for critical reading and writing in College English. In response to the perceived significance of critical thinking in reading provided by *A Guide to College English Teaching,* the empirical research draws from the five-step PjBL implementation procedure as delineated by Barrows (1980, p. 89-74) and the five-step Problem-based Learning implementation procedure by Hmelo-Silver (2004, p. 235-266), towards formulation of a PjBL model for local pedagogical use. After a two-year implementation period, the authors concluded by proposing wider PjBL use in College English education. Zhang (2021), in another study, focused explicitly on the localisation of PjBL for moral education in College English education. Building upon the guidelines from domestic media, e.g., CGTN and China Daily, a five-step PjBL implementation procedure was in place to combine disciplinary and moral education. By contrast, here the motive of PjBL implementation was to facilitate development of learner disciplinary knowledge, academic skillsets and national pride. That said, the instructional focuses are more varied and, via the use of PjBL, learners could enhance cross-cultural competence with enhanced exposure to foreign literature and cultures.

Taken together, domestic empirical work on PjBL use at the tertiary level became more commonplace over the decades, although it focused largely on language and engineering education. Also, it still remains sparse if viewed globally. Such an expanding, and increasingly sophisticated body of domestic research reflects that

PjBL seems to be more visible in Chinese higher education, with growing awareness by domestic HE practitioners of its potential instructional benefits. Also, such PjBL adaptation and localisation can be considered pedagogical innovation, fuelled by instructional requirements/guidelines in relevant policy/regulation documents. Vagueness in such documents presents confusion, but also opportunities for autonomy, to HE practitioners.

Given that PjBL can be conducive to learner grasp of subject knowledge and development of comprehensive competence, PjBL has gained significant traction in College English education, English Major education and Engineering education, with multiple forms of projects to accommodate given instructional focuses. Also central to such localisation efforts is the role of instructor during the project process. More recently, strengthened awareness of Chinese indigenous culture has provoked attempts to localise PjBL which, in conjunction with disciplinary teaching and learning, sought to cultivate learner patriotism as well (Zhang, 2015). As such, the potential of PjBL in ideological and political education at the tertiary level is recognised (Lv et al., 2024; Zhang, 2025).

In summary, the adaptation of PjBL in Chinese higher education is susceptible to policy/regulation guidelines, mainly focused on boosting learning outcomes, learner comprehensive competences and, more lately, national pride and confidence. Central to such localisation/adaptation efforts are the ongoing debates regarding the instructor's role over the PjBL duration, the forms of the projects and the extent to which the projects are considered an integral aspect of the instruction. That said, the projects can be treated as the modules, or merely a subordinate addition to the module.

3.3.2.4 Gaps in the literature

Taken together, following the inception of PjBL over a century ago, PjBL-based research mainly speaks to teaching methodology and broad instructional guidelines, bringing to the fore the unique tenets and versatility of PjBL as a pedagogy. Yet, such

research seems inadequate in formulating a holistic system of theoretical construction, or clear instructional guidelines of PjBL across multiple educational phases (Zhang, 2019). More systematic inquiries are merited. The section below summaries existing gaps in the literature.

Firstly, in terms of scale, though PjBL has gained longitudinal, over-century long development in the West, its utilisation in China, and precisely Chinese HE, had hitherto been comparatively spasmodic, limited and piecemeal. The bulk of domestic PjBL-based pedagogic practices and research rests on experimentations by individual educational practitioners at individual modules which, though depicting an impressive diversity of PjBL implementation, lacks research rigour. The cause of such an impasse, then, rests on the difficulty in combining theory with practice, in relation to contextual aspects, especially the gap between Western theories underlying PjBL and Chinese context and data, which seem especially challenging given the lack of well-established, indigenous theory.

Secondly, in terms of subjects, although the main body of PjBL-based research in China focuses predominantly on language education where PjBL takes the form of 'project-based language learning'. PjBL use in other subjects, e.g., teacher education, remains much under-explored. Concurrently, such PjBL-based research is largely concerned with learners, despite sporadic calls to consider the roles of instructors in the PjBL process (e.g., Xu, 2017; Zhang, 2015). PjBL necessitates a departure from traditional, instructor-centric approaches; henceforth, a re-adjustment of the beliefs and practices of instructors as key agents in fruitful PjBL implementation (Hu, 2008). In further considering the role of instructor in shaping classroom dynamics (Hendrickx et al., 2016), the importance of investigating instructor experiences with PjBL is consequently self-evident.

Thirdly, in terms of perspectives, there is a significant tendency within current scholarship to investigate PjBL from the point of view of dominant epistemologies in social sciences, e.g., sociocultural, social constructivist, or postmodern/poststructuralist approaches using units of analysis/framing which give

little attention to aspects located between the local and the concrete, for instance learner/instructor motivation, learner learning/affective outcomes with PjBL, and the impact of school culture (e.g., Chant, 2009; Kolberg et al., 2003; Ravitz, 2010) on PjBL. Such epistemologies necessitate, among other things, a deliberate transcending of particulars and localities towards the recognition of more generic principles. Knowledge must be contextual; however, this clashes with other assumptions underlying many epistemological/methodological practices (Thomas, 2002) in the social sciences and humanities, specifically education.

One possible alternative would be to redress the epistemological focuses onto the level of underpinning ontology, to be more epistemologically open to both "things in the world" (Morrison, 2006, p.3) and how they come into being. With focuses on the interconnectedness of the aspects within a system and the intricate dynamisms within interactions among aspects, Complexity Theory (CT), a perspective emerging from other discourses, rather than over them (Davis & Sumara, 2006, p. 8), emerges as a fitting theoretical framework to unravel the co-adaptation between lecturer beliefs and pedagogic practices with PjBL, as mediated by their situated contexts.

Through such a review of related scholarship, I have contextualised PjBL use at the tertiary level (with identification of current gaps) with respects to scale, subject and perspectives. This thesis hence sought to make original contributions to knowledge by:

1) Focusing on PjBL adaptation in higher education, to respond to the limitations of existing research;
2) Focusing on PjBL adaptation in pre-service teacher education as one underexplored subject;
3) Focusing on lecturer, rather than learner experiences with PjBL;
4) Eschewing the reductionist, linear view of human activities, to acknowledge and explore the complexity, dynamism and unpredictability within the lecturers' PjBL experimentation;
5) Using more flexible theoretical language, thus better accommodating the spaces

between Western theories and practices with PjBL in China.

Thus, two research questions are developed for this study:

1) How is western pedagogy adapted in Chinese HE, with specific reference to PjBL as a case?
2) How do complex systems of Chinese lecturer beliefs and practice interact with such new western pedagogies?

This section has presented, discussed and critiqued pertinent scholarship on PjBL and recognised current gaps in the literature, with regard to the formulation of two research questions. The next section proceeds to examine and justify Complexity Theory and cultural scripts for teaching as two conceptual frameworks for the study.

3.4 Examining adaptation of Project-Based Learning in this study: two proposed conceptual frameworks

Chapter 2 touched on the conceptual components relating to the evolving context in Chinese HE, the changing landscape of transporting Western pedagogy to Chinese HE and project-based learning as one such pedagogy. The literature review in this chapter justifies the need to critically examine the changing and complex profile of pedagogy transfer to Chinese HE, in view of some local aspects and the empirically reported epistemological tensions of borrowing some Western pedagogies wholesale. Two conceptual frameworks thus emerge as instructive in exploring the complexity of PjBL adaptation as one such pedagogy transfer, namely Complexity Theory and cultural script for teaching.

This section aims to outline a proposed conceptual framework for this study by connecting such components. The formulation of such a framework includes the adaptation of PjBL by Chinese HE practitioners in the context of their departments/institutions, which mediates teachers' educational beliefs as a complex system and the complex interplays between their beliefs and practices.

More specifically, such concepts have been discussed in the previous chapters, in the

form of a review of the changing landscape of pedagogical use in Chinese HE, from 'wholesale recognition and borrowing of foreign models as advanced', to 'critical reflection upon the suitability of such pedagogies' and most recently a 'recogniton and highlighting of the indigenous aspects'. Bottom-up adaptation of such pedagogies by front-line teachers, e.g., project-based learning, as the focus of the study is put into a HE context; lecturers' beliefs as a complex system is conceptualised via the lens of Complexity Theory.

The ways institutional/departmental contexts matter for such adaptation is discussed, and cultural script for teaching is used to facilitate this point. In unpicking the innate complexity of teachers' belief system and the ways it interacts with their pedagogical practices with PjBL, each case university is taken as a context, with identification of given institutional/departmental aspects, e.g., the type of the university, institutional characteristics, affordances of resources, modes of talent cultivation and major concerns. Such aspects together present a cultural context for each case university and further correlate to the teachers' beliefs and practices of PjBL and whether such contexts affect the ways PjBL was adapted by teachers working within.

3.4.1 Complexity Theory as a lens to understand the interplays between lecturer belief, practice and context

This section introduces and justifies Complexity Theory (CT) as a fitting conceptual lens to assist in unpicking the complexity relating to PjBL adaptation in this study. In so doing it begins with an overview of CT, before discussing the epistemological power CT provides in understanding teacher beliefs and practices.

3.4.1.1 CT as a fitting conceptual lens in social science research

Developed from the study of physics, biology, chemistry and economics (Mason, 2008), Complexity Theory (CT) concerns itself with the multidimensional relationships and dynamic interactions among agents and elements in producing and reproducing multiple patterns and phenomena, both within and beyond complex systems (Haggis, 2008). It is interested in environments, organisations or systems

which are complex in that substantial numbers of "constituent elements or agents are connected to, and interacting with each other in many different ways (Mason, 2008).

Given its identification in natural phenomena, the applicability of CT to social sciences has also been stressed by some social theorists (Eve et al., 1997, pp. 7–9). As its name suggests, CT set to acknowledge the complexity within human activities and settings (Kuhn, 2008). In further recognition of the ubiquity of change, the rarity of stability and certainty, in social sciences CT serves an equally robust explanatory framework, on the ways individuals and their environments shape and reshape each other, via which knowledge is socially and culturally created, acquired, distributed and renewed (Davis & Sumara, 1997, 2005). It breaks from "simple successionist cause-and-effect models, linear predictability and a reductionist approach to understanding phenomena, replacing them with "organic, non-linear and holistic approaches respectively" (Santonus, 1998, p. 3), arguing against the "linear, deterministic, predictable, positivist, universalisable, stable, atomised, objective, mechanistic, controlled, measurable, closed systems of law-like behaviour and simple causality" (Morrison, 2008, p.24). The explanatory power of CT lies particularly in its concern with complex environments, organsiations or systems, within which various constituent elements or agents interact with each other in complex, often unpredictable ways (Mason, 2008). Such interactions cannot be captured fully via traditional reductive measures (Koopmans, 2020).

The potential of CT has gained wide recognition in the fields of social sciences, e.g., applied linguistics, TESOL and teacher education over the past decades (e.g., Cho & Gay, 2021; Fatemi et al., 2023; Larsen-Freeman, 2019). CT seeks to understand multidimensional relationships and dynamic interactions in complex systems (Mason, 2008). In teacher education research specifically, previous studies (e.g. Johnson, 2009) have attested to the complex, dynamic and situated nature of teacher development, echoing the tenets of CT, which sees learning as 'a process of emergence and co-evolution of "the individual, the social group and the wider society" (Mason, 2008, p. 21).

CT also parallels Foucault's argument on "polymorphous correlations in place of simple or complex causality" (Reed & Harvey, 1992, p. 9) and, subsequently, indicates epistemological shifts from "a concern with decontextualised and universalised essence to a concern with contextualised and contingent complex wholes" (Mason, 2008, p.36) when dealing with agentive, conscious agents in social sciences study.

3.4.1.2 Understanding teacher beliefs and practices from the lens of CT

In acknowledging the complex, non-linear and unpredictable nature of teacher beliefs (Šapkova, 2014; Zheng, 2013, 2015), the significance of research on teacher beliefs lies in understanding the relationship between belief and practice (Davis & Pape, 2006; Pajares, 1992), which is referred to as complex (e.g., Basturkmen, 2012; Lim & Chai, 2008).

In light of CT, teacher pedagogical beliefs and subsequent practices can hence be conceptualised as "complex, adaptive systems" (Zellermayer & Margolin, 2005, p. 1278) that are emergent, transformative and adaptive from within, in response to external influences, and constituted by a series of interactions, relationships and engagements among teachers in their everyday routines (Clarke & Collins, 2007). That said, the complex interplays between teacher beliefs and situational aspects could help define the system of their practices (Borg, 2019). There is also stability innate to the lecturers' belief system (Schraw & Olafson, 2002), and varied levels of stability of aspects of such systems (Kagan, 1992; Putnam & Borko, 1997; Richardson, 2003; Schraw & Sinatra, 2004).

Likewise, such systems comprise networks of elements or agents of multiple types, interacting in myriad ways to generate collective behaviour, sophisticated information processing, adaptation and evolution (Cameron & Larsen-Freeman, 2007; Morrison, 2008). Whilst the system grants individual teachers' spaces of autonomy and agency to act in ways based on individual values and beliefs, their actions are highly subject to transformative impacts on the system holistically (Levine & Marcus, 2010).

The systems of teacher belief and practice can also self-organise alongside their individual pedagogical practices, social/emotional engagement (Davis & Sumara, 1997, 2005), feeding into a dynamic, bottom-up process in which “an organism is responding to the environment by reconfiguring itself and metamorphosing in order to survive and transcend itself” (Morrison, 2008, p. 20). This further shows the relevance of CT to this investigation. That said, CT signifies an emphasis on “bottom-up development and change, local and institutional decision-making" (Mason, 2008, p.21). This parallels the centralisation of lecturer experience in this study, with investigative focuses on their pedagogic innovation as mainly a self-initiated, individual attempt. The ways and extent to which they exercise autonomy and agency, against mandated module contents, high-stake and rigid module assessment, and towards prescribed module teaching aims and targets, features considerable degrees of complexity.

To be more specific, although a lecturer practice system involves a form determined by its initial condition and control parameters (e.g. prior professional learning), its form is susceptible to constant change given the multidimensional relationships and dynamic interactions among lecturers, in response to the external environment and changes (Cochran-Smith et al., 2014). This renders the nature of lecturer practice as emergent, transformative and adaptive from within, and in response to external stimulus (e.g. departmental/institutional policies). Teacher practice thus embodies nested nature, interacting with other systems in the broader departmental, institutional or sociocultural context, for external support for survival and sustainable development. That said, a lecturer might go beyond their system boundaries (e.g., situated departments/institutions) to collaborate with like-minded peers in external communities of practices they would find conducive to personal professional development, such as discussion and trail of innovative pedagogical approaches. It is also possible for lecturers to collaborate with university researchers for updating professional knowledge which can, in turn, benefit themselves and their own departmental/institutional systems (Yuan & Mak, 2016). As a result, lecturer belief

and practice systems are open in nature, interconnected with other systems for self-development and vibrancy.

In further view of the most fundamental tenet of CT as it elicits attention to "the interconnectedness of the components of a system in producing the whole, and of the system and its context" (Larsen-Freeman & Cameron, 2008, pp. 38-9), applied to education, CT attunes research interests to the interactions and between systems (Opfer & Pedder, 2011; Yuan et al., 2018). This can more precisely enable rational sensemaking of the challenges and opportunities within teaching, teacher beliefs and other networked systems, given the dynamisms, co-adaptations and unpredictability inherent in such systems, and the ways context functions to affect the congruence between teacher belief and practice (Buehl & Beck, 2015), for instance their departure from lesson plans (Bailey, 1996; Šapkova, 2014; Yu et al., 2020). Analytic attention is paid to "networks, linkages, holism, feedback, relationships and interactivity in context" (Cohen & Stewart, 1995), thus engendering more holistic conceptualisations of teaching and learning. Another obvious merit of CT, as mentioned earlier, is its ascending the linear, reductionist epistemological grounding as a powerful alternative and to better unpick the nuances within teaching/learning.

Applied to research on teaching, in acknowledging teaching as inherently unstable, resistant to deterministic and reductive analysis, CT provides a more encompassing, ecological approach. This enables a systems-level understanding of how teacher learning is translated into practice (e.g., Opfer & Pedder, 2011, Strom et al., 2018, Daly et al., 2020). Consequently, such perspective navigates investigative attention to the contexts, unpicking interactions within, and between systems (Opfer & Pedder, 2011, Yuan et al., 2018), together with re-conceptualisation of lecturer belief and practice as emergent phenomena that are co-produced by these interactions (Strom & Viesca, 2023, Daly et al., 2020). Teacher belief systems are context-responsive and open to multiple kinds of impacts, thus allowing for entering of energy or matter from outside the system and enabling a 'far-from-equilibrium system to keep adapting and maintain stability' (Larsen-Freeman & Cameron, 2008, p. 32).

A complexity perspective also offers possibilities for unravelling the ways systems work to constrain or strengthen given practices (Opfer & Pedder, 2011, Yuan et al., 2018), therefore enriching understandings of the conditions which might be more beneficial to the emergence of powerful forms of teaching (Daly et al., 2020).

It is my intention via this inquiry to examine thoroughly the complexities in lecturer adaptation of PjBL. Therefore, in applying CT as firstly a paradigmatic orientation, the narratives in this study are shaped so as to differ from "linear, objective, positivist accounts of the natural and social world" (Kuhn, cited in Mason, 2008, p.173). To be more specific, understanding lecturer belief and practice with PjBL as a form of lecturer learning, from the lens of CT can shed fresh light on the emergent patterns of interaction, both within and between levels of activity. This hence serves an explanatory lens of "teacher learning as a complex system" (Opfer & Pedder, 2011, p. 379), mediated by various institutional and sociocultural contexts. In light of CT as an organic, nonlinear and holistic approach (Morrison, 2008), lecturers themselves emerge from the dynamic interactions of the aspects of their personal webs, e.g. their classroom, department, institutionor communities of practice. Such webs are "neither isolated nor independent" (ibid., p.24) and shall be approached in an interrelated sense (Kuhn, 2008, p.13).

3.4.2 Cultural script for teaching as a lens to understand teaching in Chinese HEIs

The previous section has stressed the influence of beliefs in shaping teacher pedagogical decisions, e.g., Pajares, 1992. As with CT, belief as a construct is challenging to define and measure (Pajares, 1992; Goldin et al., 2011) and can sometimes be hard to separate from individual knowledge, considering the complexity of their professional discourse. While the innate complexity of teacher belief can be unraveled by comparing professed beliefs emerging from interviews and classroom practices as observed, combining CT and cultural script would lend more robustness

to the findings. This aligns with Speer (2005) and his view that the messiness within the construct of belief can be managed if it is clearly conceptualised, with exploration of key assumptions and precise meanings, together with sound assessment and adequate sensibility to context.

There is also growing evidence that beliefs are both affected and maintained by the social context (Ernest, 1989; Gates, 2006), and as such suggests that beliefs can deviate from dominant discursive practices. This, in turn, illuminates the observed contradictions between teachers' professed beliefs and practices on the ground (ibid.), and that practice is conditioned by both contextual and situational aspects, together with the extent of reflection on beliefs and practices (Ernest, 1989).

Thus, in light of the evidence in the literature review that the transportation of Western pedagogy is complex and, simultaneously, in recognising the role of the context in affecting beliefs and practices, as well as the consistency/inconsistency in between, a cultural script for teaching seems a fitting conceptual framework for this study.

3.4.2.1 A Cultural Script

A cultural script, as Stigler and Hiebert (1999) suggest, serves a mental picture, or a generalised piece of knowledge shared among people of a culture. It informs one about things, navigates one's behaviour and expectations. It is learnt implicitly via observation and participation, rather than deliberate study. Such knowledge comprises cultural beliefs and assumptions that underpin the way of life of a people, the ways that individuals treat one another, and the vision and purposes of an organisation or society (Hargreaves et al., 2007, p.11).

The 'cultural beliefs and assumptions that underpin the way of life' are part of control beliefs, namely beliefs that filter what goes into people's belief system and shape their perceptions (Tan, 2011b), concept of self, others and the world (Tan, 2011b). They inform and are informed by a person's thought processes, logic, observations and experiences, thus formulating the foundation of that person's 'meta-view' via which

they make sense the world and construct its meanings. Control beliefs perform two main functions: first, these beliefs perform a conditioning function by providing the precondition for one to accept other beliefs; for example, a teacher's belief in wanting their students to be involved in small group discussion is dependent on their prior and more basic belief (control belief) that collaborative learning is beneficial to student learning. Secondly, control beliefs serve an adjudicative function by determining the acceptability of other beliefs; this is the case of a teacher, when confronted with an innovative teaching approach, would resort to personal prior control beliefs on what constitutes quality teaching, so as to evaluate, and further accept or resist that approach.

3.4.2 2 A cultural script for teaching in China

When epitomised by CS, teaching can be seen as a cultural activity, learnt via informal participation over long periods of time. Notably, teaching is to be learnt more implicitly, e.g., by growing up in a culture, than deliberate study. In a given culture, there is a shared mental picture of what constitutes good teaching (Stigler & Hiebert, 1999). Following on from Stigler and Hiebert (ibid.) that teaching as a cultural activity, then, teaching is dynamic in nature, evolving alongside methods that are in line with the underlying beliefs as part of the culture. Consequently, the emphasis on teaching by the two scholars also suggest an inclusion of educational activities associated to teaching, e.g. student learning, teacher professional development, or school dynamics.

This lends credence to the point that cultural scripts undergird the total way of life of a group of people, by impacting their epistemology and subsequent actions. Preferable behaviour patterns are often established and reinformed by teachers in classroom settings (Wang & Murphy, 2004). As far as this study is concerned (regarding Chinese lecturers' adaptation of PjBL as a western pedagogy), a cultural script for teaching lends a robust framework, via situating the lecturers' instructional means within the context of culture-specific beliefs concerning education, e.g., the role of the teacher and students, ways for module instruction and how students learn.

Though Culture as a construct is often esoteric (Andrews, 2010), there is evidence that cultural norms do shape values, which are subsequently translated into classroom practices (Hargreaves, 2012). In Chinese HE, such norms are reflected in the selection of instructional methods, organisation of classroom activities and the roles of teachers and students; hence, the notion of a dominant cultural script for teaching in the Chinese context becomes pertinent. Much current literature abounds in accounts of cultural differences in teachers' pedagogical development, and subsequent pedagogical practices (Andrews, 2010; Stevenson & Stigler, 1994).

Researchers have identified three cultural scripts as influential and prevalent in the Chinese context. The first script concerns student respect for the teacher (Wang & Murphy, 2004), followed by the second cultural script – student attention and discipline in class. The third and final cultural script relates to the significance of practice for the students. As noted by Tan (2016), a common practice for Chinese students is to review regularly via extensive and layered practices, for more competence in conceptual understanding and procedural development in a discipline. That said, the Chinese belief in content mastery via repetitive learning is a defining tenet of the philosophy of learning in China; such belief can be traced back to the words of Confucius; 'Is it not a pleasure, having learned something, to try it out at due intervals?' (Analects, 1.1), and the Chinese proverb that 'practice makes perfect' (Huang & Leung, 2004, p. 371; Tan, 2013b, 2014).

That said, knowledge is seen to be generally not fluid, constructive and subjective, but relatively fixed, essentialised and objective (ibid.). Although all human beings are expected to 'broaden the way', as taught by Confucius, only those with adequate investment of time and energy will achieve such status. Subsequently, it follows that knowledge, in the Chinese epistemology, is mainly acquired via content mastery of prescribed texts, guided by an expert, rather than self-discovery. Tan (2015, p.7) then refers to the role of a teacher as that of a knowledge transmitter, content expert and moral guide.

In particular, Tan (2015) offers an analysis of the Xueji (one of China's oldest and

most comprehensive works on educational philosophy and teaching methods), in an attempt to illuminate the prevalence of 'teacher-dominated' pedagogy among the Chinese educational stakeholders, as essential for 'quality' teaching. Such pedagogy stresses the role of the teacher in planning, orchestrating and monitoring classroom activities, which ensure the teacher's control and student involvement throughout the learning process (Huang & Leung, 2004). The epistemological basis of the teacher as the transmitter and exemplar of the 'way', alongside a view of knowledge as residing in the canon and acquired through systematic tutelage, explains why teachers continue to be respected and play a prominent role in modern Chinese classrooms (Tan, 2015, p.9). Therefore, despite the stated aim of the Chinese authorities to borrow 'Western' style student-centred instruction, what actually happens in China is not a total shift from teacher-centredness to student-centredness, but rather an enduring practice of didactic, teacher-fronted instruction which exists alongside given forms of student-centred teaching, under many classroom circumstances.

China presents an illuminating case to the conditioning functions of control beliefs, in encouraging domestic educational stakeholders to adhere to their traditional beliefs concerning quality teaching while, alongside this, adapting relevant foreign beliefs in accordance with local particulars and agendas. In other words, the cultural scripts for teaching in China are ingrained in the Chinese worldview concerning the nature and dissemination of knowledge (Tan, 2015).

The second implication (ibid.) is that appreciating the cultural scripts of a locality adds to knowledge of the complex trajectory of education policy transfer, as interpreted by the recipients; also, it challenges the researchers to re-visit their prior interpretations and application of given logics, concepts and theories.

One illustration is the notions of 'teacher-centredness' and 'student-centredness'. Huang and Leung (2004) caution that the dichotomy between student-centredness and teacher-centredness in the current literature is 'too artificial to capture the subtle characteristics in the classroom' for Chinese context, since it is 'based on superficial features such as the teacher's expository teaching and students' attentive listening'

(p.13). Li (2004), in a similar vein, cautions that there exists a prevailing 'uncritical importation of Western concepts and theories', and the 'persistent reliance on Western concepts without attending to indigenous or emic cultural meanings and their psychological manifestation in learning' (p. 128).

More research is also warranted to unpick the interaction between 'indigenous knowledge' (Dei, 2000; Dei et al., 2000) and 'foreign'/'Western' knowledge, and also the impacts of such interactions on the 'hybridity and eclectic creolisation' of education in diverse contexts (Willis et al., 2009; Takayama, 2011). Via connecting the 'past' (classic texts) and the 'present' (cultural scripts), and also between the 'indigenous' (cultural scripts) the 'imported' (foreign ideas and practices), the profound role of culture in transporting pedagogy becomes discernable.

From such analysis, dominant cultural assumptions regarding teaching in China can be captured, which, according to Stigler and Hiebert (1999), would suggest that 'non-traditional' instructional methods, e.g., those prevalent in other cultures, is unlikely to be utilised wholesale without prior attention to the cultural beliefs and assumptions of the teachers implementing them. Similarly, one suggestion from the literature concerns going beyond the over-simplified dichotomy of 'west/east' to consider the particulars of pedagogy transportation. It therefore follows that uncritical adoption of 'Western' pedagogies, such as PjBL, might be problematic, as Chinese teachers hold educational beliefs incompatible with the proponents (e.g., Zhang, 2011) of such approach. The core constructs of PjBL, e.g. student self-directed work towards a tangible final product over a given duration of time, facilitated by the teacher, might not be in the prevailing cultural scripts for teaching by Chinese teachers. It would then be necessary to appreciate the ways in which the local-level cultural script for teaching is instilled in, and further internalised and practiced by teachers, and the characteristics of teachers who are willing to deviate, at least partially, from such script. More specifically, in order to enact PjBL for expected instructional outcomes, there is a need for the teachers to revisit their own 'script'; such process requires time and external support. Such aspect of the 'cultural script for teaching' has thus offered

this study a conceptual framework with which to examine the possible challenges to the use of Western pedagogies, such as project-based learning, alongside the stability of 'traditional' ones.

3.5 Conclusion

This chapter has reviewed scholarship on multiple aspects of PjBL, by firstly recognising PjBL as a highly adaptable pedagogical approach. It proceeded to build upon varied perspectives towards a working definition of PjBL for this study. A set of essential, defining tenets of PjBL has been captured, namely that the project must be central to the curriculum/module, though with certain levels of malleability in terms of project time allocation and project forms. Guided by forceful questions, projects engage learners in investigative - preferably group - work, towards the construction of artefacts with authenticity, and subsequently to the enrichment of disciplinary knowledge and development of other comprehensive competences. Also, PjBL offers an opportunity for instructional flexibility for practitioners.

The chapter then delved into the approach's underlying philosophical/theoretical foundations, progressively from Constructivism, Vygotsky's Social Constructivism and Dewey's Pedagogical Creed, resonating with the aforementioned tenets of PjBL. Also showcased are the potential difficulties of such an approach, especially for practitioners in China. It was argued that the enduring emphasis on knowledge construction, particularly, distinguishes PjBL from other pedagogical approaches, e.g. problem-based learning. A more targeted comparison of the two approaches is included in the following section, and though they are often referred to as interchangeable, there exists considerable difference between the two, as PjBL seems to be more longitudinal, with stronger focuses on learner knowledge construction, and prescribed centralisation of the project to the curriculum/module.

The chapter further examined the developmental trajectory of PjBL for pedagogical use in higher education, and established the positive link between the instructional

benefits of PjBL and cultivating 21st century skills. It then highlighted PjBL's suitability to Chinese higher education. It later reviewed the literature, stressing the growing body of empirical inquiries into PjBL and, more recently, the integration of technology into PjBL application. Domestic scholarship is found to be lagging behind, considering the late application of PjBL in Chinese education, inter alia and higher education, as a means of boosting the cultivation of learner academic knowledge and, more recently, 21st century skills. Domestic scholars/practitioners have mainly considered the implementation of PjBL for discipline-specific instruction, examining the impacts of PjBL on student learning outcomes, and adapting PjBL for pedagogical purposes on the ground. The review has demonstrated that PjBL, a learner-centric, constructivist approach developed in the West, provokes both interest and confusion in Chinese higher education as a non-Western context. Moreover, it was highlighted that although the PjBL-related scholarship has been diversified, and developed noticeably in breadth and depth since 2002, many gaps remain, particularly with regard to the complexities facing lecturers' experimenting with such approach. Such gaps necessitate more flexible theories to unpick PjBL localisation in relation to the context, and complexity theory and cultural script for teaching, therefore, emerge as two fitting conceptual frameworks by acknowledging the influences of context on teaching as a cultural, complex activity which involves fluidity, dynamism and change-responsiveness.

Chapter Four: Methodology

4.1 Introduction

This qualitative study has sought to examine the ways PjBL, as a western pedagogy, is adapted and situated in the context of Chinese HE, mainly drawing upon data gathered from in-depth interviews and observations. This chapter intends to detail the process of planning, developing and refining the research methodology so as to offer "a thick and transparent account" (Cohen et al., 2011, p.18) of the methodology for this study.

Following the structure of depicting the research process delineated by Denzin and Lincoln (2011), the first section considers the researcher as a multicultural subject, followed by a discussion of the theoretical paradigms and perspectives for data analysis. The subsequent section discusses and justifies case study as the research strategy, prior to presentation of the procedures to gather and analyse data, in consideration of the criteria for judging adequacy and possible limitations. Also discussed are the approaches utilised to maintain the ethical standards in relation to the protection of data and secure data storage. The last section concludes this chapter by providing a summary of the ways the data is presented and analysed.

The setting of the methodology in this study sought to answer the two overriding research questions as listed in the end of section 3.3:

1) How are western pedagogies adapted in Chinese higher education, with PjBL as a case?
2) How do the complex systems of Chinese lecturer beliefs and practice interact with such new western pedagogies?

The table below illustrates the relevance between the RQs, the design of methodology and data collection in this study.

Research questions	**Types and quantity of data collected in both case studies**
RQ1: How are western pedagogies adapted in Chinese higher education, with PjBL as a case?	<u>Classroom observations of the modules featuring PjBL</u> • Weekly classroom observations of the two modules featuring PjBL (1 module and 18 observational notes for each case study, altogether 36 notes). • Interviews with the lecturers implementing PjBL (1 for each case study, altogether 2 interviews), on their perceptions of PjBL, and beliefs relating to the aims of their modules and student needs. <u>Research diaries</u> • The researcher's reflections and notes, formulated immediately after interviews and observations. <u>Project output by students</u> • Project works by students (6 for case study one, 5 for case study two).
RQ2: How do complex systems of Chinese lecturer beliefs and practice interact with such new western pedagogies?	<u>Semi-structured interviews</u> • Interviews with the departmental manager (1 for each case study, altogether 2 notes), on the departmental-level culture for teaching. • Interviews with the other lecturer on the

	same module group with the lecturers implementing PjBL (1 for each case study, altogether 2 notes), on the departmental-level culture for teaching. <u>Classroom observations of other modules</u> • Observations of other two modules within the same department (2 for each case study, altogether 4 notes). <u>Collection of module-relevant materials</u> • Written teaching plans for the modules featuring PjBL (1 for each case study, altogether 2 plans). <u>Research diaries</u> • Occasions of accompanying the lecturers during their working days (3 for case study one, 1 for case study two). • The researcher's reflections and notes, formulated immediately after interviews and observations.

Table one: relevance between the RQs and the types and quantity of data collection

4.2 The researcher as a multicultural subject

I am convinced that it is impractical for researchers to remove all traces of themselves from their research. Whilst not detrimental to the research, it remains crucial to acknowledge and address the assumptions concerning the research, for the purposes of reliability of the study.

My assumptions rest upon my own prior knowledge and experience as a researcher. My academic background is in the social sciences and, more precisely, English literature and EFL/ESL education. The latter is interrelated with the field of psychology, which favours basing learning/teaching on observable behaviours. The observer brings their own subjectivity in interpretation, as a tool in understanding data.

I embarked on my PhD journey upon completion of my postgraduate degree in TESOL, which focused on overseas postgraduate students' socialisation into the host HE contexts. In subsequent years as a PhD candidate, my inquiry likewise was concerned with unpicking various individual experiences against the background of fluid macro contexts. Such a background then fed into my following assumptions, which are also shaped by the literature:

1) Student and teachers in higher education are agentive individuals;

2) Student and teacher behaviours are influenced both by their perceptions and situated contexts;

3) Student and teacher behaviours can be observed and classified, thus engendering implications for teaching and learning;

4) Student and teacher perceptions and behaviours are manifestations of their individual interpretations of, and responses to, the contexts. E.g., Crombie et al., 2003; Lai, Wang, & Huang, 2022; Yu & Salmela-Aro, 2022.

Such assumptions will be elucidated where relevant. I also feel it necessary to note that, whilst perfect presentation of perceptions or behaviours is impractical, such data can offer a reliable indication of the beliefs and practices of the lecturers. Likewise, I contend that categorisation of behaviours remains a largely subjective act on behalf of myself as a researcher. I therefore acknowledge that, in light of such subjective

categorisation and codes, the narratives in this study rest equally upon the data and my interpretation of it. This will be discussed in more detail in the subsequent section 4.5.2.

4.2.1 Reflexivity and positionality of the researcher

One key aspect of qualitative research that distinguishes it from quantitative research is that the researcher plays an intimate role in both data collection procedures and data analysis (Dwyer & Buckle, 2009). Thus, "our own biases shape the research process, serving as checkpoints along the way" (Bourke 2014, p.1). As Berkovic et al. (2020) suggest, it is incumbent on qualitative researchers to recognise and acknowledge their own inescapable position in, or influence on, the research.

Positionality refers to a researcher's worldview and standpoint when undertaking research (Rowe, 2014). To understand and construct the researcher's positionality, self-reflection or a reflexive approach is necessary. This involves researchers engaging explicitly and self-consciously with their stances and how they have influenced the research process (Greenbank, 2003). It also involves researchers being sensitive to their own cultural, political and social background (Becker et al., 2012), and how this might influence or shape the research. This section presents the issues related to reflexivity and positionality that I encountered during the whole research journey. It describes how my own views and positions as a researcher might have impacted the design, data collection and the co-construction of data interpretation in the research process.

The process of examining my own positionality, or engaging in what Macbeth (2001) terms 'positional reflexivity', helped me become more conscious of the part I played in shaping the research, and to try to minimise the impact of my own biases. Indeed, as with Wilson et al. (2022) such positionality can affect all aspects of my research process - such as research design, questions and further data collection and analysis.

More specifically, my prior personal experiences fuelled my decision to investigate the adaptation of project-based learning, one Western pedagogy, in Chinese higher

education. Furthermore, my prior learning experiences and, more significantly, my UK postgraduate degree, profoundly shaped my philosophy with regard to conducting academic research. I became conscious of my developing familiarity with the research context, especially case study one, as the research unfolded.

Researcher reflexivity also relates to the ways the researchers "view themselves and are viewed by others: as an insider or outsider, someone with power or who feels powerless or coming from a privileged or disadvantaged situation" (Ozano & Khatri 2018, p. 191). It is suggested that researchers should consider the ways they perceive the concept of insider/outsiderness, either as a continuum or a dichotomy (Holmes, 2020). I brought to the data collection process an underlying assumption that my lecturer participants may view me from the perspective of a privileged outsider, as a PhD student at a UK university and in a powerful position as interpreter of their pedagogical practices. Yet, such positionality could be fluid and change along the course of data collection (ibid.), as I build familiarity and rapport with my participants.

For this reason, deliberate efforts were made to make my participants feel comfortable: by learning how to listen, by building trust and rapport and by giving participants choices; for example, the option to switch to Chinese as their preferred language during interview sections. However, while I was an outsider to the immediate community of which my participants were part, I was also an insider in a number of ways, which provided me with easier access to the educational context being studied, as I was seen as "one of us" (Berger, 2015). For example, I had insider knowledge of the educational system and ways of tertiary teaching and learning in a Chinese context, and as a fellow Chinese national, I shared the same language - Mandarin - as my participants. This helped me to raise pertinent questions and formulate appropriate follow-up questions in the interviews, and also understand participants during the classroom observations. My past identity as an English major in a Chinese University promoted my gaining access to, and establishing a rapport with, my participants in both case studies.

Given that the study is concerned with the situatedness of PjBL as a Western pedagogy in Chinese higher education, in reference to the local policies, the need to adequately understand the context, together with the dynamics and complexities of my positionality, is self-evident. That said, I consciously adopted an outsider positionality within given aspects of the study, while attempting to empathise with my participants so as to show respect. This is attributable to an awareness of the potential drawbacks from an insider positionality, namely the risks of subjectivity during data collection and analysis. In this sense, sticking to an informed reflexive consciousness is salutary in order to contextualise my subjectivity in the data representation and interpretation of the study (Palaganas et al., 2017). To illustrate, despite my prior teaching experience as an IELTS tutor, I have not had any pre- or in-service instructional experiences in Chinese higher education, unlike most of my participants. Additionally, my current identity as a PhD student from a UK university has fuelled my formulation of an external, to some extent 'Western', epistemology in designing and undertaking the research, which would simultaneously help me go beyond any pre-conceived knowledge of the culture in which the research is situated. It also helped with my careful selection and reflection of research methods for better validity. Additionally, my months-long engagement within the research context with the participants has enhanced my first-hand exposure to pedagogy use in Chinese higher education, thus adding rigour to the study in unpicking the situatedness of pedagogy with critical reflection of Complexity Theory as one Western concept, in recognition of China's contextual particulars.

4.2.2 Theoretical paradigms and perspectives

The approaches to methodology in research, in light of the work of Kuhn (1962), lie with paradigms and communities of scholars. Kuhn (1962) refers paradigm as a way of perceiving or researching phenomena with an 'accepted model or pattern' (1962, p. 23). Cohen et. el. (2011) further stressing that paradigms stand for a shared belief system or set of principles that shape a research community and their means of pursuing knowledge. Views or approaches to research differ at an individual level,

naturally, and such approaches to research methodology are defined as paradigms, namely "the philosophical intent or motivation for undertaking a study" (Mackenzie & Knipe, 2006, p.4). Paradigms are understood to be the first step towards undertaking research and therefore constitute the foundation of any research (Grix, 2018). The flexible constructs of paradigms also allow for their alternative conceptualisation as sensemaking of the social world, given the explicit/implicit underlying assumptions (Cohen et. al., 2011). Therefore, paradigms feed into a collection of general philosophical assumptions regarding the nature of reality or the essence of the social phenomena under investigation, namely ontology, which foreground the epistemological underpinnings; in other words, ways of researching the nature of reality and the nature of things, and the ways one comes to know such realities (Cohen et. al., 2011). Such underpinnings also result in axiology, namely the values and beliefs of the researcher. The paradigm for this study is formulated in this way, and progressively guides the investigative focus on the adaptation of project-based learning as one Western pedagogy in China (a non-Western context) and is centred on lecturer beliefs and practices. This section sets out to demonstrate how I arrived at such a research paradigm and how my methodological considerations were informed by my ontology, epistemology and axiology. Also discussed will be how my selection of instrumentation and data collection for the study were shaped.

4.2.3 A qualitative study

The paradigm wars (Gage, 1989) between quantitative or qualitative traditions in research have been, for the most part, confrontational and overstated (Denzin, 2008). In going beyond the differences between the two, researchers should concede that one paradigm is not superior to the other and both traditions contribute different, while pertinent, findings within educational research. Likewise, Denscombe (2008, p.280) argues the 'practice-driven' nature of pragmatism, that truth and reality can be understood in multiple ways, both by the subjects and the researcher. Leaving aside the continuing debate over quantitative versus qualitative approaches, the pragmatic approach relates to whether the researcher was able to explore what they initially

wanted to know, regardless of the approach (quantitative or qualitative) for obtaining the answers. Thus, informed by pragmatism, the current study adopts the most useful approach to answer the research questions. The approach for this study was driven by the research questions rather than the researcher's methodological preferences (Glesne, 2011).

That said, though interested by the potential of mixed-method research, I was simultaneously aware that the research questions pointed to a need to yield in-depth and context-specific insights and understanding of PjBL enactment by Chinese HE practitioners, and as such the situatedness of Project-based learning in relation to the complex interplay between lecturer belief and later instructional practices. Such interplay, built upon the assumption made in section 3.4.1, is mediated by the local contexts.

In so doing, I could build familiarity with a phenomenon, especially case study one to which I am a complete outsider. This could enrich my understanding of the occurrence of given phenomena surrounding PjBL adaptation.

4.2.4 Interpretivism as the theoretical view

Educational research is not characterised by one paradigm alone. The paradigm fitting for the current study is interpretivism. The suitability of interpretivism to this research is discussed below.

Denzin and Lincoln (1994) equate the interpretivist/constructivist paradigm to the hermeneutic tradition. They further divide a paradigm, “the frames of meaning” (Spybey, 1989) into three aspects, featuring an interpretivist/positivist dichotomy. Whilst influential, such a dichotomy was later challenged by Scott and Usher (1996) who favoured both an identification of paradigms and epistemological openness in viewing paradigms. One such pathway identifies positivism, interpretivism, critical theory and postmodernism as one framework. Crotty (1998, p.5), following such line of thinking, identifies three major theoretical views: positivism, post-positivism and interpretivism.

Being aware the subjectivity of my participants' individual beliefs and experimentation with project-based learning, a relatively novel pedagogy, the paradigm of this study should facilitate an insight into the multi-layered interpretations and perceptions produced by my participants during the observation and interview sessions. Epistemologically my study seeks to explore the situatedness of project-based learning as one Western pedagogy in Chinese higher education. Geertz (1973) highlights that to maintain the integrity of the phenomena under investigation, contexts should be explored through the eyes of the participants and the researcher should endeavour to "understand from within" (Cohen et.al., 2011, p. 17). This foregrounds the interpretive stance of such inquiry in unpicking the complexities within lecturers' beliefs of and practices with project-based learning. Hammersly and Atkinson (2007) consider epistemology to be relevant to behaviour and that it is therefore "future-orientated". In other words, human behaviour is varied, given the situations and contexts in which it takes place, which justifies my observing the participants *in situ* (Creswell, 2009) and recording the weekly classroom sessions for collecting naturally occurring data (Leung, Harris & Rampton, 2004). This could offer insights into how the lecturers enacted project-based learning under their situated classroom circumstances.

My study is hence informed by the interpretive approach. Of equal significance are my pre-occupied personal biases, prejudices and values, and their impact on my interpretations of the study. Since, over the semester-long data collection, I inevitably became a part of the research sites, my own biases in relation to my position as a researcher would be interwoven with my beliefs, values and pre-assumptions. This justifies the use of the interpretivist approach for the study and "make the familiar strange" (Holliday, 2007) by re-examining a familiar context from the perspectives of a detached observer.

Interpretivism, by its very nature, builds upon an anti-foundationalist view that the world does not exist independently of our knowledge of it (Grix, 2004), with the central belief that "the social world should be studied in its natural state, without

intervention of, or manipulation by, the researcher" (Cohen et al., 2011, p.17). That is, the researcher following such a tradition is sensitive to the participants' views of the context under discussion, understanding the context as socially constructed of multiple realities (Creswell & Creswell, 2003).

Focusing on revealing the meaning behind human behaviour and social phenomena (Pulla & Carter, 2018), interpretivism gives prominence to individual agency, and highlights the significance given to subjective accounts during the research process, coupled with reflexivity on the part of the researcher (Burman, 1997). Interpretivism is favoured by scholars such as Foucault and Derrida, who observed that individuals hold personal views, and one task of the "researcher is to locate research findings within the views of the self that the participants hold, and to identify the meanings with the participants accord to phenomena" (as cited in Cohen et. al., 2011, p. 28).

Relating to this study - an exploration of the adaptation of PjBL - interpretivism is applied to allow for both the participants' perspectives of PjBL and my interpretation of their instructional practices under natural classroom circumstances. In so doing, it acknowledges the agentive role of lecturers in adapting PjBL as they reflect upon, and respond to, given contextual aspects.

Given that interpretivism seeks varied interpretations of a phenomenon and legitimises the individual within the research, a subjective epistemology is therefore a natural product; that said, the researcher seeks to examine the myriad viewpoints of research participants, while simultaneously infusing personal insights into the context under investigation towards theory formulation (Potrac et al., 2014), holding that theory should emerge from the findings rather than precede it. In so doing the researcher is also a research participant (Bryman, 2012). This constitutes a prominent tenet of interpretivism; that theory is not predetermined, but generated or deductively developed alongside the research process (Mackenzie & Knipe, 2006). In other words, interpretive research is essentially inductive (Smith, 1983). I thus recognise the suitability of the interpretive paradigm to my study. This is evident in the centralisation of the individual in such a paradigm, as a value-laden approach,

navigates the researcher to "understand from within" (Cohen et al., 2011, p.17). Also, different individuals experience and view the same "objective" reality in multiple ways, with individual justifications for personal actions (Alharahshel & Pius, 2020).

As my analytic focus is on the complexities within lecturer beliefs and practices as mediated by their situated contexts, intervention is not preferred. The interpretive paradigm, with focuses on the myriad interpretations of given events and contexts in natural settings, is therefore more compatible with my purposes. I will proceed with interpretivism as the theoretical framework to design and undertake the research.

Nevertheless, it is also pertinent to note that such a value-laden element of the interpretive view is often subject to criticism, on the grounds that, though it enriches understanding of the participants and their personal points of view, it is unlikely to produce valuable generalisations in educational studies (Cohen et al., 2011). That is, the uniqueness of each context under investigation will render generalisability of findings problematic. In response to such a limitation, providing "thick descriptions" (Geertz, 2008) via multiple sources of data will be adopted in this study, to address the issue of PjBL adaptation in Chinese HE. The use of value-laden research strategies, e.g., case study, therefore seems fitting.

Interpretivist research is, at the same time, viewed as inductive, given its emphasis on understanding by means of developing empathy with the research participants, often by putting the researcher in the same natural setting (Smith, 1983), with manageable sample sizes which helps yield substantial data. Though rejecting the possibility of wide generalisability, such an approach contributes to a researcher's comprehensive understanding of a given phenomenon with respect to its context and the ways it affects participants. Thus, in acknowledging teaching as a subjective, flexible and contextualised action, the interpretivist view would facilitate an insight into the multi-layered interpretations produced by the research participants, in conjunction with biases from the researcher.

4.3 Case study as the research strategy

4.3.1 Justification of the use of case study

A research approach should be seen as being constructed for concrete purposes rather than selected for any generic usefulness (Clough & Nutbrown, 2012). Thus, in light of the particulars of this study, this section sets to justify case study as the research strategy and outline the implementation process.

Case study is dynamic in nature, subject to flexible sense-makings (Stake, 1995), with emphasis on "detailed examination" (Bogdan & Biklen, 1982, p.58) of cases. The 'cases' also take various forms, e.g. an individual, group, institution or a phenomenon such as a programme or activity (Macky & Gass, 2005). Hence, case study seems a fitting strategy to assist thorough appreciation of the situatedness of Project-based learning in one eastern context, in reference to the complexities in context, lecturer beliefs and practices. This aligns with Berger and Luckman's (1966) assertion that a case study is appropriate in illuminating the social construction of reality. In light of the three types of case study as categorised by Stake (1995, 2005) and Creswell (2013, p.99); namely instrumental, intrinsic and collective, this investigation involves a collective case study, for it is concerned with a phenomenon, and more precisely adaptations of project-based learning by two participants. This is advocated by Duff (2011), on the ground that it mitigates against the risk of losing some participants who may choose to withdraw from the research. Arguing along the same lines is Dornyei (2007), who posited that collective case studies could, in some sense, overcome the "idiosyncratic unpredictability and audience criticality" (p.155).

Among the four functions of case studies as delineated by Yin (2009, pp.9-10), namely description, exploration, prediction and explanation, this is firstly an exploratory study, since it seeks to reveal the 'what' and 'how' issues surrounding lecturer adaptation of Project-based learning in a "bounded system" (Creswell, 2013, p. 97), namely two modules at two Chinese HEIs. It is simultaneously explanatory, given its focuses on the processes of PjBL adaptation.

Case study has certain merits compared to other forms of inquiry. Firstly, cases are

popular in interpretive, ethnographic research with the aim of understanding behaviour in natural settings and tracing the construction of meaning and identity (Hartley, 2004). Mackey and Gass (2011), in a similar vein, stress the advantage of case studies as "rich contextualisation that can shed light on the complexities of phenomena" (p.12). Such tenets indicate the value-laden nature of case study. As this study is concerned with PjBL adaptation from the perspective of lecturers, case study seems a fitting strategy in unpicking the lecturers' beliefs and practices in authentic classroom settings.

Secondly, as indicated earlier, this study involved an examination of the adaptation of project-based learning by two Chinese lecturers at two institutions. The selection of such institutions was aimed at helping identify the common and disparate patterns in different settings, namely one teacher college and one comprehensive university. I see case study as a research strategy conducive to examining lecturer beliefs and practices with project-based learning in ample depth, building upon Denscombe's (1998) belief that case study has the value of allowing the researcher to deal with the subtleties, as well as intricacies inherent to complex social situations within the focus of one or few instances. That said, the case study is concerned with holistic explanation and justification, being "holistic" in nature (p.31), navigating investigations into the synergies and interactions of multiple aspects in one case. This study delves into the lecturers' beliefs and practices with project-based learning, in consideration of a holistic picture involving their teaching plans, daily teaching practices, overriding concerns and situated contexts. This can be realised by one of the celebrated merits of a case study, namely the adoption of diverse data collection methods.

Given the above, case study seems the most fitting strategy with which to reveal PjBL adaptation *in situ* in response to the call for more empirical research of PjBL use in Chinese HE, as stated in section 3.3.2.4. Thus, case study is adopted in this study for its inclusion of multiple types of data and collection tools, towards an exhaustive depiction and understanding of complex phenomena.

The case study approach assists in examination of an authentic phenomenon within

the contextual situations and in capturing elements from the conditions from which they emerge, which are rather pertinent to the study seeking to capture the complexities associated with lecturers' adaptation of Project-based learning. The study looks at multiple influential aspects, e.g., educational system, culture and allocation of resources, of which the use of a case study ensures a holistic, context-specific understanding.

Despite widespread advocacy surrounding the use of case study, such a research strategy is also subject to criticism, mainly in relation to its inability to confer statistical generalisability and generalisations in the study of education (Cohen et al., 2011). Such a limitation is attributable to the uniqueness of individual cases and contexts, and can be remedied by what Geertz (1972) advocates as a combination of comprehensive descriptions and varied data collection methods. Such methodologies might include phenomenology, case study, discourse analysis and ethnography. The focus is subsequently on depicting heavy data, so that the researcher can develop an intimate knowledge of a given phenomenon, the context that takes place and its implications on participants over time. Yin (2009, p. 15) contends that case studies do provide a form of generalisability, not of the statistical variety applicable to populations, but rather "analytical generalisation" applicable to "theoretical propositions". That said, the primary focus of case studies is on deepening knowledge of a phenomenon, so as to enrich pertinent theories towards informing pedagogic practice which, in this study, relates to the PjBL approach.

4.3.2 Case selection

The study encompasses two eighteen-week academic modules covering one academic semester, and explores the lecturers' adaption of project-based learning throughout. This includes: teaching approaches adopted, projects undertaken, daily routines of lecturers on their working days and weekly observation of lecturers, workshops and seminars. The study aims to examine the complex relationships between the lecturers' beliefs, practice and situated contexts/ecology, building on the lecturers' own position. The working definition of project-based learning as developed in the

previous chapter guides case selection for this study, namely two modules at two HEIs. The modules do not necessarily contain all tenets of PjBL, and many are not made explicit either in the module teaching plans or by the lecturers themselves.

4.3.3 Negotiating access

The research is interested in presenting adaptation of project-based learning across different modules. The research is hence undertaken in two HEIs, given the focuses on how contexts mediate lecturer beliefs and practices. As stated in section 4.1, my positionality as a researcher is intimately linked to the treatment of myself and others, and how I approached the two lecturers as potential research participants.

As was especially the case for my gaining access to case study one, a pre-service teacher college, to which I am a complete outsider. My goal for this investigation was to learn from the lecturers' perceptions and practices of project-based learning. I was aware that the use of project-based learning as a module pedagogy might not be made explicit by the lecturers, who might either implement 'partial' project-based learning according to personal definitions or conducting such pedagogy without realisation. This highlighted the importance of learning the lecturers' understanding of Project-based learning, and why they prioritise such pedagogy over the taken-for-granted, long-standing instructional approaches.

4.3.4 Sampling approach

The research does not intend to make definite claims regarding whether the Chinese HE practitioners are implementing authentic Project-based learning according to established criteria but, rather, it seeks to describe and examine their adaptation with such pedagogy, as affected by the relationship between their beliefs, practices and contexts. The research thus employs a non-probability sample; in other word, a sample not created for concrete generalisations of findings.

The sampling method involved identifying the pedagogic approach utilised in two modules from two departments/schools within two HEIs, which in some sense could

be termed ‘project-based learning’. Contacts were made via a snowball sampling strategy, which involve the researcher making initial contact with a small group of people as relevant to the research topic, prior to using such contacts to approach others (Bryman, 2008). For case study one (in a HEI where I previously studied), contact was made with one lecturer in the first instance, then widened to include another lecturer from the same module group. For case study two, the institutional managers were contacted via email, to allow for my further contacts with the lecturers. I was interested in exploring the adaptation of project-based learning under different classroom circumstances, so initial conversations with the two lecturers involved gaining a general knowledge of the module, teaching and assessment approach so as to ascertain the relevance of the modules to my inquiry. Building upon the working definition of project-based learning as developed by the end of the literature review section, coupled with my discussions with my supervisors, I was ultimately able to select the two modules as the two case studies in my investigation.

The two cases were subsequently identified within Lexicology for English major education and Teaching practice for pre-service K-12 English teacher education. They were also selected given the varied perceptions and treatments of project-based learning, so as to better capture the complexities within beliefs, practice and the mediating impacts of contexts.

The recruitment strategy involved identifying two modules delivered by project-based learning at one research-intensive university and one pre-service teacher college in the same province, as two cases for this study.

I chose the pre-service teacher college since the overwhelming majority of pedagogy research has been conducted in research-intensive universities, but very sporadically in pre-service colleges which, nonetheless, constitutes an integral part of China’s higher educational system. For the purpose of the inquiry, I differentiate pre-service teacher education from English major education within the wider spectrum of higher education as; the former being concerned predominantly with training of teaching skills and student employability. The latter, by contrast, prioritises theory and subject

knowledge acquisition, towards cultivation of student academic competences in general.

Having justified my choice of a case study for this investigation, I now turn to the advantages and drawbacks of the four types of data collection tools employed.

4.4 Methods of data collection and analysis

In order to answer the research questions in ample detail, this study adopts multiple methods of data collection, e.g., semi-structured interviews, audio-recorded classroom observations, documents of the modules and field notes taken while accompanying the lecturers during their working day. Such a combination of methods is intended to add richness to the data and enhance the credibility and robustness of the findings (Bryman, 2008; Creswell et all., 2007). Also, audio recordings of weekly sessions, interviews and other categories of data would add up to a deep and rounded view of PjBL adaptation. Considering the aim of this qualitative inquiry in understanding PjBL adaptation in Chinese HE as a context familiar to the researcher, it is worth noting that it does not seek to generalise but, instead, to generate an in-depth understanding of the situatedness of PjBL in a prticular context.

The semi-structured interviews performed two functions. As they marked the first stage of data collection, they offered a background profile for each participant and the contexts where project-based learning took place - especially in case study two - to which I am a complete outsider. Also, they facilitated the building of fundamental trust with my participants, as an essential aspect of social science research. The ultimate goal of the interviews, naturally, was to gather in-depth information regarding the perceptions and practices of project-based learning.

Classroom observations were conducted weekly to learn about lecturer's enactment of project-based learning in natural classroom settings. Audio recordings were made during such observations, to be further transcribed for analytic purposes. Observational notes were taken to retain details regarding the PjBL implementation, with focuses on the lecturers' instructional language, organisation of classroom

activities and interaction with learners. I attended the weekly lectures as a non-participant observer, for a natural, holistic picture of the research contexts where PjBL adaptation took place, which cannot be fully retained by audio recording. Also, I was aware of the potential influence of my presence on the classroom, and intended to minimise disturbances to the lectures.

4.4.1 Semi-structured interviews

To facilitate a rich collection of data which, in light of Lincoln and Guba (1985), adds to the validity of qualitative research, semi-structured interviews were conducted.

The semi-structured interview, by definition, is a technique commonly used in qualitative research, which basically aims to explore the in-depth accounts of the interviewee about a specific topic rather than seek to quantify aspects of the his/her 'life story' with numbers (Kvale & Brinkmann 2018, p.30). It has various advantages; firstly, it allows for interviews to be focused while allowing for researcher autonomy to explore emerging relevant ideas, thus enhancing understanding of the research topic (Adeoye-Olatunde & Olenik, 2021). Also, there is some freedom and flexibility for both the researcher and participants in the process, while the researcher, to some degree, could manage to retain a level of control over the interview sequence (Bryman, 2008). Moreover, flexibility can be ensured by the interviewers' synthesising and discussion of multiple topics (Kakilla, 2021), which enables the researcher to ask for further clarification or elaboration based on the information provided (Berg, 2007).

Since semi-structured interviews allow for participants' discussion of their interpretations of the world in which they live, and to convey the ways they regard situations from personal viewpoints (Cohen et al., 2011), they constitute a significant research tool in this study. Also, since this study is interested in the ways PjBL was adapted by Chinese lecturers, such a tool would enrich insights into the perspectives of lecturers. More specifically, the interviews are intended to yield in-depth and detailed information regarding the participants' beliefs, which, in conjunction with

additional inquiries, would help minimise misunderstandings or extract specifics from initially vague responses.

Though serving as a powerful research tool, interviews are also highly susceptible to interview bias (Dyer, 1995; Karatsareas, 2022) as being specifically planned and constructed. This can however be remedied by combining interviews with other methods of data collection, and in such cases, interviews could assist the researcher in delving deeper into the motivations of respondents and their underlying reasons for responding (Cohen et al., 2011).

Bearing in mind that questions included in the interviews should be "contextual, explanatory and generative in nature" (Troudi et al., 2009, p.548), some interview questions were initially designed loosely. The participants were interviewed prior to the classroom observation, so as to provide some basic information concerning the research setting. The use of unstructured interview questions demonstrated advantages in allowing the researcher to capture the comprehensibility of the questions to participants and made timely adjustments (Perry, 2011). On the other hand, in so doing, opportunities are created for comparing their beliefs, reflected in their oral accounts, with their PjBL adaptation in actual classroom settings. Each interview, lasting about forty minutes, allowed the participants to choose the language (English/Mandarin). Subsequently, both participants chose Mandarin as their first language, though occasionally there was some switching to English in relation to explain certain concepts, terminologies or classroom activities. All the interviews were audio-recorded with the participants' consent, and were further transcribed for analytic purposes.

During the initial interviews, I was conscious that, especially in social science studies, participants' emotions and personalities can affect their interaction with me. I thus developed the awareness of "learning how to listen" (Richards, 2003, p.48). Rubin and Rubin (2011), similarly, understanding the relationship between the interviewer and the interviewee to be a "conversational partnership" (p.79). In further consideration of some vague issues - e.g., the lecturers' unfamiliarity with PjBL might

challenge their expression of ideas - more concrete, alternative terms were used, e.g., student group work, unguided investigation and active participation, so as to aid in lectuer understanding and contributing responses.

As a result, building a trusting relationship with the participants and developing a comfortable conversational environment constituted a necessary part of data generation. I then commenced the interviews with some basic questions, e.g., the participants 'educational backgrounds and their teaching experiences, to establish initial contact and make them feel at ease by sharing general information. Though sticking to the prepared guiding questions and prompts, during the interview I also tried to adapt the participants' spontaneous responses. This, however, caused some participants to drift away from the interview questions and share irrelevant information. In such cases, I did not attempt to guide them back to the questions by interrupting their talk, but instead tried to listen first and then guide them back to the questions in a natural manner. This had the effect of to making them feel comfortable, and also enriched my knowledge of the research context and participants.

4.4.2 Weekly Classroom observations

While interviews are undoubtedly useful sources of data, they represent lecturers' reports and do not show what they actually do during class project-work. They also provide only a 'snapshot' taken at temporally distant points in the research design, leaving large gaps in the data collection chronology. Ongoing field observation notes, recording in real-time what is directly observed during classes, can overcome these two overlapping weaknesses by "allow[ing] researchers to see directly what people do without having to rely on what they say they do" (Dornyei, 2007, p. 185). That is, observation can verify or refute respondents' self-reporting. Therefore, a form was designed to record real-time qualitative observations on lecturers' PjBL-adaptation during weekly sessions.

According to Creswell's (2007) categorisation, there are four types of role that a researcher might take in classroom observation; (i) complete participant; (ii)

participant-as-observer; (iii) observer-as-participant and (iv) complete observer. Basically, however, observation can be categorised as either being participant or non-participant. The latter, which is defined as "a situation in which the observer observes but does not participate in what is going on" (Bryman 2008, p. 257) was utilised in my study because I wanted to reduce the interference of the outsider in the classroom, but also because I wanted to immerse myself in the setting. As a researcher in a qualitative study, my main purposes were to understand the participants' perspectives on the issues and rationales for certain practices within a particular setting and then to interpret them. The observations helped to develop my understanding of this phenomenon, namely lecturer adaptation of PjBL, as well as the rationales provided by the participants in the interviews. Furthermore, as Morrison (1998) suggests, observation enables researchers to gather data from four aspects; the physical aspects (e.g. seating, the physical organisation of the classroom), the human aspects (e.g. age, gender and culture of the participants), the interactional aspects (e.g. verbal, non-verbal interaction), and the programme aspects (e.g. resources, learning materials, task content, etc.). All of these aspects can provide the researcher with a holistic view of the context as well as the interrelationships of the contextual factors (Morrison, 1998).

Another advantage of observation is that it is a primary source of data, providing the researcher with moment-to-moment data in unique situations. As Cohen et al. (2007, p.456) suggest, observation offers the opportunity for the researcher to immerse himself/herself in naturalistic social settings to gather 'live data'.

For this study, the method of audio-recorded non-participant classroom observation was considered particularly important because these observations would act as a source of data and analysis. The observations were intended to enhance the legitimacy of the data collected through the semi-structured interviews by providing a comparison between what participants said about their adaptation of project-based learning and what they actually did in the classroom. It was therefore possible to compare whether, and in what ways, their behaviour might deviate from the ways

they report themselves as behaving and, in so doing, tap into the complexities inherent in the relationship between their beliefs and practices.

The classroom observations for each case study took around eighteen weeks in total, due to the necessity of the presence of the researcher in the observational processes. To record the classes, a smartphone with a recording function (iphone10) was found to be the most suitable. As each classroom was equipped with a microphone for the teacher, it was very easy to capture the teacher's voice clearly. In addition, as a smartphone is much less noticeable than a camera supported by a tripod, I believed that it would effectively minimise the participant's awareness of being recorded, so improving the naturalness of their behaviour. I believed that the use of video recording devices like a camera would cause too much pressure (one teacher suggested this in the interview). I concede, however, that the audio recordings had some shortcomings; for example, they were unable to capture non-verbal elements such as teachers' gestures and students' expressions. I thus attempted to mitigate this disadvantage by taking field notes during the observations.

As another way of reducing the observer effect, during the observation I tried to avoid interaction with both the lecturers and students, including eye contact and any verbal or non-verbal responses. Moreover, by attending the classes a couple of times before the formal data collection process began, I sought to build trust with the participants and the students. Furthermore, by conducting multiple observations I believed that the validity of data would be strengthened as the participants' awareness of being observed would gradually decrease and they would behave more naturally over time.

Aside from the classroom observations and interviews with the lecturers exploring the complexity within their PjBL adaptation in sufficient depth, I also found it necessary to accompany the lecturers during their working day, which can add to the richness of the data and illuminate the complexities inherent in the lecturers' situated ecologies. Such observational notes, practically, provide some 'implicit' data which shadows both case studies; that said, they added to my familiarity with, and sensitivity to, the living ecologies of my participants alongside data collection. This especially

applies to case study one, to which I am a complete outsider.

4.4.3 Field observation notes

Field observation notes confer several benefits. Because they are much more free-form, they can accumulate data "in ways that are not pre-determined or pre-specified" (Emerson, Fretz & Shaw, 1995, pp. 10-11). Such notes can enrich a dataset by capturing potentially relevant, useful and interesting but fleeting behaviours, processes, interactions, contributions and other features (Emerson, 2007, p. 428) which might otherwise be lost and which can be followed-up immediately after class or during interviews. They can also record the researcher's/teacher's own impressions of what was observed, as well as their reflections on the implications the notes' contents have for the research study and/or pedagogic practice. Dornyei (2007, p. 160) calls this process "internal dialogue, or thinking aloud". The notes could support or refute self-reported behaviours from interviews to expand the depth and breadth of understanding, providing a more complete answer to the research question. When a critical mass of field observation notes has accumulated, individual and group behavioural patterns start to emerge from the "fieldnote corpus" (Emerson, 2007, p. 428). Through this corpus, field observation notes meet Morse & Niehaus' (2009, p. 19) requirement for tools to improve "description, understanding, or explanation of the phenomenon under investigation".

However, field observational notes are incomplete, selective and subjective representations of events. They are incomplete since it is impossible to observe everything that happens moment-to-moment in a classroom simultaneously, and because one can only note what is directly observable, while other equally noteworthy but abstract or latent phenomena such as participants' underlying rationale or motivations go unseen and unrecorded. Field notes are selective because researchers consciously or subconsciously choose what to note and what to overlook. They are also subjective because observable events are open to multiple interpretations (Bell et al., 1993, p. 110) and because any interpretation may itself be flawed due to observer bias or lack of contextual or background information.

For this reason, Dornyei (2007, p. 180) refers to field observation notes as "high inference". It therefore seems prudent for researchers using such notes to check their interpretations of classroom events and behaviours with the participants themselves through follow-up discussions, as well as to compare the notes with data from other sources. An example classroom observational note is included in appendix eight. Next, I briefly describe how module-relevant documents were incorporated into the dataset.

4.4.4 Collection of module-relevant documents

To better reveal the interplay between lecturer beliefs and practices, other documents relating to the module were collected. Specifically, those documents which are in the form of written module teaching plans, developed by the module teaching groups beforehand. The plans list specific details concerning the instructional aims and objectives, expected learning outcomes from the students, and the teaching materials in use. Such details add to my understanding of the modules.

4.5 The art, practices and politics of interpretation and evaluation

4.5.1 Research bilingually

When conducting bilingual research crossing the researcher's and participants' cultural-linguistic boundaries, there is a risk that information given by one party may become coloured through the other's own cultural-linguistic lens, so that the original information might be misinterpreted, obscured or lost. One study by Jagosh & Boudreau (2009) in the field of medicine exemplifies how easily differences in the meaning of terms in the researcher's and participants' languages can cause problems for a study. Furthermore, Oppenheim (1992, p. 184) warns that "[t]ranslation can subtly alter the meanings and overtones of an attitude statement". As Attia (2011) points out, researchers conducting any investigation across languages and cultures are required to "negotiate and interpret linguistic and cultural meaning in their data - whether dialogic, observational, textual, or mediated". Arguing along the same lines are Temple & Young (2004, p. 170), stating that researchers "reflexively debate with

the translator the choices they [have] to make in producing written text".

As such, it is important to record what participants say and do as fully and accurately as is practicably possible to avoid loss or corruption of meaning (Spradley, 1980, p. 67) and for the same reason, where necessary, to translate and transcribe textual data as soon after the event as practicable, while memories are still relatively fresh. Such has been the challenge in this study. Fortunately, access to the participants after class, on campus and during the post-project interviews provided opportunities to seek further clarification from many of the participants.

Translation issues are critical for the validity of data and presentation of findings (Birbili, 2000; Temple & Young, 2004). Since translation has now been interwoven into cross-language and multilingual qualitative research, the rigour and art of translation are intimately linked to the validity and trustworthiness of such research (Zhao et al., 2024). It is hence necessary to consider, as suggested by Gawlewicz (2016), the circumstances surrounding translation during data collection and analysis.

Furthermore, given the importance of translation issues for enduring data validity and presentation of findings (Birbili, 2000; Temple, 2008), it is pertinent to draw upon the circumstances surrounding data collection and interpretation (Gawlewicz, 2016), along with the reflexivity of the researcher's position on language issues (Carling et al., 2014). Indeed, since much of the data collected was originally in Chinese, during data collection an awareness was developed to consider the multiple cultural or linguistic issues in translating the information sheets into Chinese and later the data into English for presentation purposes of this study. It should be acknowledged that during such process, "…inevitably, a part of the richness, meaning, and cultural flavor [will be] lost in translation" Halai (2007, p. 353).

Subsequently, during translation process of the data, some key strategies were applied to reflect participants' voices; for example, as with the suggestion of Temple (2008), the source of the text was provided when untranslatable terms or concepts arose and, in so doing, the researcher's careful treatment of data could be achieved.

Sharing the same native language and social-cultural backgrounds with research participants could be conductive to the process of data collection, as the researcher engaged in a process of building familiarity with and sensitivity of the dataset via data transcription, translation and interpretation (Turhan & Bernard, 2022). The reflexivity of the researcher's position on language issues in research is also noted by some research, e.g., Carling et al., 2014; Etherington, 2004. This applies to the study as, after having observed and audio-recorded participants' weekly modules, initial observational notes were immediately created, with information in its original state - a mix of Chinese and English. Such notes were later subject to further translation and, with highlights of some seemingly vague expressions, terms or concepts based on cultural values, the original information was presented, with explanations in English. In short, as with Turhan and Bernard (2022), translation in this qualitative study was a complex task, necessitating my reflexivity in the cautious treatment of translating source data into English as the target language.

4.5.2 **Data analysis**

Auerbach and Silverstein (2003) suggest that it is impossible for researchers to identify patterns instantly after reading a large number of transcripts. Therefore, a systematic coding method is imperative in organising the extensive data sets, and this can be seen as the initial step of data analysis.

In this study, an inductive, constantly comparative approach was firstly utilised to generate themes from the data of semi-structured interviews. All the interviews were conducted in a mix of Mandarin and English (mainly Mandarin), and the interview recordings were then transcribed in their entirety in Chinese. All transcription work was conducted by myself for a general impression of the data. Then the transcripts were checked with the participants to ensure there was no misunderstanding of their words, or inaccuracies in the transcript. The data was analysed in its original language (Mandarin) but the generated codes, categories and quotes from the participants were translated into English for supervisor feedback and later thesis presentation.

Moving on to the coding procedure, the first step was coding within each interview. Once I had obtained a general impression of the data, I re-read the transcripts, with particular attention paid to those related to my research questions. As the transcripts were from dynamic oral talks, as long as one unit was comprehensible by itself, regardless of length - phrases, sentences, or paragraphs, it was regarded as a unit of coding. To avoid missing any potentially useful information, all these units were identified and coded with a particular attention to those directly related to the research questions. In vivo coding was adopted, e.g., assigning conceptual labels to the units of coding by using words or short phrases directly taken from the participants' own words, to retain the key information as much as possible (King, 2008). Where this was not practical, some labels were generated based on the essential component of each unit's meaning. The conceptual labels were then compared with each other within each interview transcript for the purposes of refining and, where necessary, reformulating.

The next step was to further compare and refine codes across interviews. Once this stage had been completed, the codes were scrutinised again and similar codes were grouped to form categories. According to Rubin and Rubin (1995, p.241) "examining the material in individual categories allows you to refine what a concept means", and "comparing material across categories allows you to figure out which themes seem to go together or contradict each other".

Therefore, for the purposes of this study, when the primary categories had been derived, I further analysed the material within and across the categories and formulated an improved categorisation of the data by creating or eliminating certain categories. Subsequently, these categories were scrutinised a second time to identify connections at the conceptual level. Broader categories that incorporated teacher-perceived factors that influence their PjBL adaptation were formulated. There then followed a detailed presentation and interpretation of the collected data, in which direct quotations from the participants in each category were noted.

Through this process I was able to re-examine the original data and ensure that all

evidence was grounded in the data. Some further modifications were then applied to these categories and a final list of categories was generated during this process.

Paralleling the qualitative nature of the study, data analysis comprised the application of techniques of qualitative data analysis. That said, data from the interviews and classroom observations were analysed via the thematic analysis approach. The section below discusses such process of data analysis in more detail.

4.5.2.1 Thematic analysis

Being a type of qualitative analysis, thematic analysis is defined by Braun and Clarke (2006, p.79) as "a method for identifying, analysing and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic." Thematic analysis is considered fitting for studies centring on extrapolation of themes or patterns via interpretations. It confers multiple advantages, e.g., moving beyond counting explicit words or phrases and focuses on identifying and describing both implicit and explicit ideas.

In applying thematic analysis, this study builds upon the six steps identified by Braun and Clarke (ibid.) to discern patterns across the dataset, e.g., familarising with data, generating initial codes, searching for themes, defining and naming themes, and finally producing the report.

Firstly, the familarisation process included transcription of the data from audio recordings to a document, before checking the translation of each from Chinese to English. Some transcripts were retained in the original language (a mix of Chinese and English) considering the nuances of the source language and thus to assist in analytic purposes. The transcripts were then read line-by-line by the researcher, with identification and highlighting of relevant extracts. Some initial thoughts were also produced and noted at this stage.

The second stage comprised generating initial codes. That said, after transcription of

all the interview transcripts, the researcher read thoroughly the transcripts in search for features and extracts relevant to the two research questions.

The next stage proceeded to collate the codes generated to potential themes. Here the focus was on whether overarching themes could be created by combing different codes. This constituted an iterative process, that is, paralleling Grbich (2007), initial meanings were extracted during the course of data collection, which were subject to further revisiting as the research unfolded. Such approach confers certain merits, e.g., enables the researcher to attend to data collection alongside the testing of emerging hypothesis (Maxwell, 2012). Coupled with such iterative, ongoing analysis of data was the application of thematic analysis at both individual case level and across the two case studies. This added to deeper investigation of themes that emerged as recurring in the lecturers' beliefs and enactment of PjBL, and also those which were case or context specific. Data were later presented in the following chapters 5 and 6 to allow for a sense of each case study, which later culminated in a holistic picture of PjBL enactment in Chinese HE in chapter 7.

The fourth stage, namely reviewing themes, is termed by Braun and Clarke (2006) as reviewing the themes. Therefore, themes generated were subject to re-reading alongside the coded extracts, to ensure that the themes were derived from the codes.

The fifth stage built upon the previous stages to define and name themes. That said, all the themes were re-visited to check the overall coherence of the narrative. This also involved possible re-naming of some themes.

The last stage is about producing the report, by writing up the findings in light of the themes and text extracts. Such stages mainly aided in the analysis and report of the interview data. The next section provides more information on the ways of analysing different sets of data (interview and observational data) in this study.

Firstly, in treating interview data, subsequent to transcribing the interviews, thematic analysis was applied to analyse the interviews from the two lecturers and other members (lecturers from the same department and deans) together, navigated by the

same themes. Borrowing from Ritchie and Spencer (2002, p.39) that since qualitative data analysis is mainly about detection and defining, categorising, theorising, explaining, exploring and mapping are fundamental to the analyst's role, here the focus was on the perspectives of the interviewees in regards to institutional/departmental cultures, and perceptions and plans of enacting PjBL.

Secondly, when analysing observational data, researchers serve as the instrument in observation to collect data, and hence should be self-trained to observe both the detail and larger setting (Hennink et al., 2011). It is also suggested that equal weight be given to both wide and narrow perspective, like focusing on individuals and the overall situation (Merriam, 1998). Since this study centres on lecturer beliefs and practices of PjBL, to produce quality observational data, special attention was paid to lecturer instructional language, arrangement of classroom activities and forms of interactions. All such information and events were recorded in the form of field notes comments, which were made as detailed as possible to capture the overall classroom dynamics with a focus on the lecturers. Such notes were then re-visited for identification of main issues which parallel the second research question, and to be compared with the lecturers' interview accounts on the plans of PjBL enactment. The data were intimately linked since the classroom observations were made to appreciate the teaching and learning realities at the institutional/departmental levels and the complexities of PjBL enactment by individual Chinese HE practitioners under authentic classroom circumstances.

4.6 Research Ethics

The present study follows Durham University Guidelines for Ethical Research. With regard to the participants, after the initial email contact had been made and the number of available teachers had been identified, the two lecturers were offered a more detailed participant information sheet, which included a short introduction to the researcher, the general procedures of this study and what participants would be expected to do, as well as the objectives that the research results would serve. They were also informed that, due to the nature of the research itself, audio recording and

classroom observation would be necessary, but that anonymity and confidentiality would be ensured. That said, pseudonyms would be given to them in the research and no real names of the participants or their institution would be made discernable in the thesis. Careful consideration about such ethical issues was made throughout the research process.

The study included overt classroom observation; that said, the participants were aware that they were being observed (Cohen et al., 2007). Even though participants would be more likely to behave naturally if they were unaware of the fact of being observed, it is important and necessary for the researcher to obey certain ethical principles of conducting observation research. In this study, all the participants and their students were informed they were being observed by the researcher and of the potential influence that they might be exposed to during the observation process. Prior to this data collection process, I gained informed consent from all the participants. In addition, the participants were reassured that,, even though signing the consent form suggested that they were willing to participate in the study, they were still free to withdraw from the study at any time.

One important ethical concern of the present study is the sensitivity of the topic of pedagogic practices by lecturers in their situated classrooms. As reviewed in Chapter 2, lecturer-led instruction has played a significant role in Chinese higher education. Moreover, the suitability of learner-centric pedagogy appears dubious in the focal context, given the limited in-class time and large student population. In addition, some lecturers might refrain from abiding by the principles of learner-centredness as largely a Western concept. They instead seek alternatives like learning-centredness, as more fitting to the contextual particulars in China's HE.

Against such a backdrop, the examination of lecturers' adaptation of project-based learning in Chinese HE, as indicated by their perceptions and pedagogical practices, would appear to be potentially sensitive. That said, lecturers might feel uncomfortable or stressed when being observed. This is especially so in case study two, to which I am a complete outsider, with the intention of examining their PjBL adaptation.

Considering the possible connection between their forms of instruction and PjBL as the seemingly more advanced pedagogical choice, chances are that they might not behave in a natural way when being observed and try to infuse PjBL as much as possible into their instruction.

Also, all the participants were explicitly informed that the ultimate goal of this study was to reveal the complexity of lecturer beliefs and practices of PjBL, as mediated by their situated contexts, rather than evaluate or judge the authenticity of their PjBL experimentation. Moreover, it was never my intention to examine and judge their pedagogic methods, teaching quality and language proficiency. In addition, they were assured that their classroom performance would not be reported to their institution. Furthermore, when giving them the consent forms, the participants were assured that complete anonymity would be ensured throughout the entire research process, and the institution they worked in and the people involved in this study would all be given pseudonyms. They were told that the collected data would be used as a confidential resource and would not be disclosed to other people or organisations except for the researcher herself and her supervisors. To that end, data was stored electronically in password-protected files on a single computer whose contents could only be accessed through a different password.

4.6.1 Informed consent

When inviting people to participate in a research project, ethical practice requires not only that they give their consent, but that that consent be informed. In other words the researcher is obliged, within the limits of the purpose of the research, to provide certain information about that research and the participant's role in it, so that they can make a considered decision as to whether or not to participate. A consent form was prepared in English and then translated into Chinese (see appendix 2).

4.6.2 Ensuring anonymity and confidentiality

One aspect surrounding the degree to which a study contributes to the field of knowledge is the extent to which its dataset can be built upon to reflect reality, and

subsequently the veracity of the conclusions that are drawn from it (Mays & Pope, 2020; Yadav, 2022).

Conclusions drawn from results derived from dubious data are themselves questionable. It is therefore necessary to take reasonable steps to encourage participants' open and frank responses during self-reporting, as a means to strengthen credibility of data.

One plausible way to encourage reliable self-reporting lies in ensuring that respondents feel that they can answer openly, without prejudice or fear of punitive consequences. One way to achieve this is to protect their anonymity (Rozakis, 1999, p. 56). Since this study makes extensive use of interview data, this was a key requirement. To this end, pseudonyms are used in all transcripts.

It is crucial to keep the acquired information secure and make the data anonymous (Hennink et al., 2011). To this end, I made use of pseudonyms for the participants and institution names in the research. During interviews, efforts were also made to avoid mentioning specific information concerning the interviewees or other persons which could lead to their identification.

Moreover, I reassured all the participants that the interview and observation data were to be analysed and reported anonymously, and it was within my responsibility to protect the identity disclosure of my research participants and to ensure that all data records were kept confidential at all times. In addition, authorisation was given by participants for me to report the data in any scholarly activities, e.g. conferences, in the consent form they signed prior to my data collection and presentation. Furthermore, no third party was permitted access to the recorded data, except for my supervisors and reviewers when they feel necessary.

4.7 Conclusion

This chapter presents the methodology and methods adopted by the current research. This study investigates the complexity within the lecturers' adaptation of project-

based learning as a Western pedagogy, in relation to their beliefs and practices as complex systems. Data collection took around eight months. Multiple data collection methods were utilised in the present study, including semi-structured interviews, audio-recorded classroom observation and field work. I observed the participants' classes as a non-participant observer, and each participant was observed multiple times so as to reduce the influence of my presence in the classroom on the participants' teaching practices. Notes were taken during classroom observation relating to the lecturers' in-class instructions. Thematic analysis was employed to organise and interpret the participants' perceptions of PjBL in the university classroom.

Chapter Five: Case study one: Adaptation of PjBL in Chinese pre-service English teacher education

5.1 Introduction

The previous chapters have discussed the dynamics and complexities of transferring Western pedagogy to Chinese context, highlighting the most recent pedagogical landscape in reference to the indigenous Chinese culture of education. Also considered are the underpinning constructs and defining tenets of PjBL as one such Western pedagogy, and the wider context of Chinese higher education in which it is enacted. This chapter and chapter 6 intend to present findings from the two case studies.

As mentioned earlier, the study is fuelled by my interest in the situatedness of Western pedagogies in Chinese higher education, in consideration of its contextual complexities. Thus, exploring the ways the two case institutions reflect their characteristics relating to teaching and learning will help contextualise the PjBL adaptation by lecturers. Thus, in both chapters, scene-setting efforts are firstly made to explore the contexts of two case HEIs and the teaching and learning realities from the lens of cultural scripts for teaching. In this sense, the lecturers' adaptation of PjBL is not perceived to be an isolated matter but contextualised within an institutional and departmental background. To ensure anonymity, the two HEIs will be referred to as institution A and institution B throughout.

The two HEIs are both public institutions in Southwest China. The inclusion of the two HEIs can be justified as follows. On the one hand, the fact that institution A is a pre-service teacher college and institution B is a comprehensive, multi-disciplinary University will facilitate more holistic understandings of the ways PjBL is adapted in different institutional contexts. On the other hand, as one of its prior undergraduate students, my familiarity with institution B adds to my knowledge of its modules and lecturers. This can be conducive to the study since firstly, it enables my convenient

access to its department of English, and later my participant recruitment and data collection.

This chapter centres on institution A as the first case study. Subsequent to introducing the teaching and learning contexts of institution A and its department of English, section 5.5 proceeds to report on the lecturer's PjBL adaptation as the focus of the study. Findings are drawn from four major datasets:

1) The Lecturer's accounts of their teaching methods, and interpretations of the realities of teaching at the departmental/institutional level;
2) The departmental dean's accounts of their departmental/institutional contexts;
3) Observations of other two lecturers' teaching practices within the same department;
4) The departmental/institutional homepages, for background information on the institutional/departmental instructional aims and emphases.

Section 5.6 concludes the chapter.

Thus, in the context of teaching activities at the departmental level, this chapter more precisely contributes to understanding both the research questions via contextualising the lecturers' pedagogical practices from the lens of dominant cultural script for teaching and the form it takes. In brief, 2 sections are structured to provide contextual information relating to the two institutions as two cases in this study. Specifically, section 5.1 presents the history and development of institution A as well as its department of foreign languages which takes charge of pre-service English teacher education at the institution. Section 5.2 deals with the reported, current realities of teaching and learning at the institutional/departmental level, building upon accounts from the dean and the other lecturer, who is on the same module group with the lecturer implementing PjBL.

The inclusion of multiple sources of data in this chapter sought to enable coherent insights into the ways the adaptation of PjBL by an individual lecturer was contextualised in case study one, while simultaneously risking confusing the reader.

The table below thus intends to clarify the sources of data and their relevance to the RQs. Each interview participant was given a pseudonym.

Research questions	**Sources of data**
RQ1: How is western pedagogy adapted in Chinese HE, with PjBL as a case?	*(lecturer practices)* 1. Weekly observations of the module "English Teaching Skills" featuring PjBL 2. The teaching plan of the module "English Teaching Skills"
RQ2: How do systems of lecturer beliefs and practices interact to shape such adaptations?	*(lecturer beliefs)* 1. Interview with the lecturer (pseudonymised as Dave) implementing PjBL. *(the institutional/departmental cultural scripts for teaching)* 1. Information contained in the institutional/departmental homepages; 2. Observations of other two sessions within the department; 3. Interview with the departmental dean (pseudonymised as Cathy); 4. Interview with the other lecturer (psedonymised as Jenny); 5. Interview with the lecturer (pseudonymised as Dave) implementing PjBL.

Table two: research questions and sources of data-case study one

5.2 Characteristics of institution A and its department of foreign languages as

the site for data collection

In this study, delving into the ways the two case HEIs and their departments of foreign languages reflect their characteristics relating to teaching, learning, and pedagogical innovation could give context to the adaptation of PjBL by the two lecturers. This section thus aims to firstly report on the characteristics of institution A and its department of foreign languages, based on the information from the institutional and departmental homepages. In so doing, this section sought to contextualise the lecturers' adaptation of PjBL, which will be presented and discussed in sections 5.5.2 and 5.5.3.

5.2.1 General information of the institution: information from the institutional/departmental homepage

Institution A was founded in 1978, and was later approved by the Ministry of Education to upgrade to a provincial college for pre-service teacher education in Southwest China. It was further included in MoE's Universities Support Plan and gained support from one comprehensive University. Being a pre-service teacher college, institution A offers a relatively wide range of programmes, including history, laws, management, education, agriculture, economics, liberal arts, science and engineering. The city where institution A locates is called LS, a prefecture inland city in Southwest China. The city is particularly well-known for its rich natural and tourism resources. Institution A ranks top in terms of pre-service teacher education in LS.

By the time the study was undertaken, institution A holds more than 20,000 students, with 15 colleges and 51 undergraduate majors, and covers nine major disciplines; namely liberal arts, science, engineering, education, economics, management, law, agriculture and arts, plus 15 key construction majors at the school level. There are seven disciplines with the right to evaluate the qualifications for the position of professor (researcher), and 16 disciplines with the right to evaluate the qualifications for the position of associate professor (associate researcher). There is one national-level professional comprehensive reform project, one national-level teacher education quality resource sharing module, one national-level off-

campus practical education base for college students, and many national-level innovation and entrepreneurship training projects for college students. There are also multiple provincial-level specialty majors, provincial-level quality modules, provincial-level quality resource sharing modules, provincial-level teaching teams, provincial-level experimental teaching demonstration centre projects and provincial-level talent training model innovations.

Notably, institution A has some distinctive features. Firstly, it maintains an application-oriented instructional focus. In other words, instructional emphases are placed on enhancing student employability in K-12 teaching professions, in conjunction with the construction of several teaching training centres.

Secondly, as stated on the homepage, institution A also highlights research, namely expanding quality research outputs by its faculty in multiple fields, especially social sciences.

Thirdly, institution A engages in close partnership with local communities, including municipal and township governments. Also, joint programmes with foreign universities are built in an effort to boost research and communication.

As can be seen, being a pre-service teacher college, institution A is dedicated to promoting student job-readiness to serve teaching positions, alongside partnership with external communities. Such features could presumably affect the cultural script for teaching within institution A and its departments.

5.2.2 General information of The Department of foreign languages: information from the official departmental webpage

This section proceeds to present basic information concerning the department of foreign languages at institution A. Likewise, information was collected from the departmental homepage.

5.2.2.1 Overview of the department

The department of foreign languages is the biggest faculty in institution A, with five

departments and around 1,500 students. It offers Bachelor of Arts degrees in English education, Japanese, Frech, Translation and Business English. Prominently, the English department was recognised by the institution as one key department, and gained later recognition as provincial characteristic programme in 2007. Later, the department was added into provincial first-class undergraduate specialty construction sites. The department now comprises four open modules at the provincial level, namely Translation, English Writing, Lexicology and English Curriculum Teaching Methodology. The faculty now holds over 100 teaching staff, including 12 professors, 25 associate professors and 11 staff with a PhD degree, and over 90 percent of staff with a postgraduate degree.

5.2.2.2 The Bachelor's Programme "English Education": instructional aims and objectives

In this study, adaptation of PjBL took place within the module "English teaching skills" under the Bachelor's programme "English education". It is thus pertinent to refer to the listed instructional aims and emphasis within the document of 'Bachelor's Program Curriculum for English Majors', available on the departmental webpage. All such aims serve a lens through which to investigate the context of institution A.

As the document suggests, the major "English Education" is intended to nurture student competence in English language, intercultural communication, innovation and self-directed learning, so as to serve at provincial/municipal K-12 schools, educational institutions or other relevant organisations. The main job orientations for students include teaching, research and management in education-related fields. The official webpage also contains categorisation of such aforementioned competence into five dimensions:

The first dimension relates to professional spirit. As indicated, quality graduates from the programme should hold enthusiasm in English teaching, with a high sense of professional identity, a strong sense of social responsibility. Also stressed is the importance of teacher morality, that is, with an intimate knowledge of moral

education, graduates should take moral education as part of personal responsibility, so as to promote student sustainable development, both physically and mentally, towards a correct outlook on life.

The second dimension relates to professional competence in teaching. That said, quality graduates should be competent for English teaching, and able to enact innovative teaching activities, towards high-quality demonstration classes. Also, they should be capable of teaching reflection and teaching reform, in regard to lesson evaluation with clear ideas and critical analysis. Another form of competence relates to develop school-based modules and engage students effectively in relevant practice activities.

The third dimension relates to social responsibility, which, to illustrate, include the competence in understanding the reform and developmental trends of basic foreign language education, both at home and abroad, to capture appropriate instructional concepts. Also, quality graduates should be able to expand and utilise a professional repertoire, including knowledge and skills, for effective problem-solving under authentic circumstance of English teaching.

The fourth and fifth dimensions relate to professional achievements and comprehensive competence respectively. That said, quality graduates should strive for higher competence in the profession and develop humanistic and professional literacies. Also highlighted is the awareness to develop comprehensive competencies, e.g. organisational, expressional skills, and multi-cultural and multi-lingual communications. They should also be able to conduct self-reflection and life-long learning.

From the four listed dimensions, it can be re-captured that institution A sets its instructional focuses to meet student needs in employment as K-12 English teachers. Such information also contains more accurate goals relating to student training under the programme. That said, aside from professional knowledge and competence in English teaching, graduates are also expected to self-cultivate other comprehensive

competence which could benefit their long-term development. The ways such goals are embedded within lecturer beliefs, and later translated into their instructional practices are to be explored in later sections

The homepage information helps charactertise institution A as a pre-service teacher college with focuses on student employability. Such emphases shall be reflected subsequently in its realities of teaching and learning.

5.2.3 Characteristics of the institution and department as indicated by the dean

Having built upon the information from the institutional and departmental homepages, this section proceeds to the interview account from the dean (pesudomymised as Cathy) of the department. To illustrate, prior to weekly observations of the module featuring PjBL, such accounts offer further details concerning the institution, and realities of teaching and learning at the departmental level, to be further understood from the lens of cultural scripts for teaching. In so doing, the interview data mainly responds to RQ2 by acting as the context surrounding the lecturer's PjBL adaptation. Therefore, indicative questions were raised during the interview, such as:

1) Some fundamental information regarding the institution and department, its most pronounced characteristics compared to similar departments, and its instructional priorities;

2) The dean's personal educational background and personal role/duties within the department;

3) The existence of a 'module group/team' for each individual module within the department and the role(s) it plays in shaping the teaching of specific modules. Two sub-questions are included:

(i) Is there any section within the department that could be understood as a 'module group/team' comprising faculty members? If so, could you share more information relating to it?
(ii) Do such module groups/teams affect the ways to teach given modules? If so, in

what ways?

(iii) the ways teaching was structured/negotiated, and the existence of a preferred pedagogy among faculty members;

(iv) The dean's personally perceived developments and future goals of the department and the challenge(s) it faces;

(v) the role(s) of English education plays in fulfilling the aforementioned goals.

The interview lasted approximately 50 minutes, subject to recording and immediate transcription. The deans' responses to such questions were then analysed in response to RQ2. References within the transcripts which pertained to the RQ were selected and highlighted via close, repeated reading. Such information was further categorised based on their relevance to the research questions, and presented progressively in the section below. The interview questions were semi-structured so as to leave scope for follow-up questions. Direct quotes from interviewees were provided below in italics. Transcript for this interview is include in appendix one.

5.2.3.1 Main instructional priorities of the department as indicated by the dean

The first category that emerged related to the main instructional focuses of the department. According to Cathy, together with what has been highlighted on the institutional/departmental webpage concerning student 'job-orientation' as pre-service K-12 English teachers, the institution, as a teacher college, places strong emphasis on enhancing student employability. Thus, Cathy noticed that the instructional patterns were geared towards cultivating competence in English language and also English teaching, with the latter constituting a central part within the teaching aims and objectives.

As a result, such patterns, gaining wide acceptance among the faculty, have been internalised as part of tacit guiding principles of teaching. As suggested by Cathy, close attention is paid to equipping students with the know-how and sensibility of teaching, to survive the workplace challenges.

5.2.3.2 Enhancing student employability: a 'practise section' within the programme

Concurrently, the dominant concern within the department on student employability has navigated relevant actions at the departmental level. To exemplify, there is a compulsory section within the whole programme, namely 'practising' that offers opportunities for apprenticeship to the students as pre-service teachers, to serve at local K-12 institutions in partnership with the department. In so doing, it is hoped that the gap between student learning gains from the programme and practicalities in the workplace could be narrowed. Notably, such 'practicising' section constitutes more than half of the overall duration of the programme, e.g., from the first academic semester of first year to the end of the third year. It also takes multiple forms. To illustrate, the department would invite some front-line, in-service veteran teachers to do teaching demonstrations, or reversely, the department take the students to observe in-site some English classes at the local K-12 schools.

Adjustments are also in place to strengthen and prolong the 'practicsing' section. Cathy recalled that such section used to last for about only one academic year, and now has been extended to two academic years in total, together with student internship at local K-12 institutions.

5.2.3.3 Enhancing student employability against the 'double-reduction' policy

The priority of student employability is understood to be at stake by the department, given the stipulation of a bundle of new policies at the national level. Cathy pinpointed especially to the release of the 'double-reduction' policy (*双减政策 shuang jian zheng ce, an education policy issued in 2021 by the General Official Office of the Chinese Communist Party and the State Council of the People's Republic of China, targeting at reducing homework and after-school tutoring pressure on primary and secondary school students, and reducing family expenditure on tutoring*), as an impediment to employability of normal college students. To be more specific, since chances for such students to serve at recognised institutions are quite rare, the majority would opt for going to serve at less prestigious institutions, proceeding to

postgraduate study, or working at extra-curricular tutoring schools, which particularly appeal to those keen to settle in big cities. Thus, enjoying expanding market, such tutoring schools have offered many employment opportunities, with decent revenues. However, under the latest circumstances, the situation is now quite different. Many of such schools are facing closure, which poses further challenges for the department to secure graduate employability.

Equally importantly, the double-reduction policy foregrounds other adjustments from the K-12 institution, posing further unwanted, drastic changes to pre-service teacher education. This is especially the case in the reduced class hours for English at a growing number of K-12 institutions. Cathy saw this as a significant predicament for the students as pre-service teachers, by referring to the past when two students would be introduced to serve at one such institution, but now, since the workplace has been saturated, job offers would be made available to one student only.

The pivotal concern on student employability, as suggested by Cathy, has navigated department-level instructional practices and emphases. Indeed, such emphases were later surfaced in the lecturers' accounts on the ways they interpret and enact their instructional practices, also affecting their willingness to experiment with innovative pedagogies.

5.2.3.4 Instructional preferences by faculty members as outlined by the dean

In China, pedagogy constitutes a neglected issue in research (Zhou, 2021). the data in this section resonates against such background, as Cathy mentioned the non-existence of a preferred, normative way of teaching. In her understanding, there was no normative way of instruction at the departmental level, since the undergraduate education gives more weight to extensive teaching and learning, over focused inquiries:

"…The overriding goal for our programme is to cover fundamental knowledge, so that the students could gain a broad understanding of language teaching."

Such instructional focuses, as a result, indicate considerable room for autonomy and agency, for faculty members to enact pedagogies of their interest. This however did not mean that pedagogy remains a neglected part, since endeavours were also in place to update faculty knowledge of pedagogy. As Cathy mentioned,

"The department is active in introducing some mainstream, widely recognised pedagogies to students though, especially those classic ones still applicable in the current context.

On the other hand, Cathy revealed that the lecturers are granted much space of autonomy in selecting and implementing pedagogies according to personal interest. In so doing, ways to teach largely depend on individual lecturers' predilection for communication and peer learning, which ideally would produce positive outcomes. It seems that such autonomy serves a precondition for the lecturer's experimenting with PjBL in section 5.5.

What can be further inferred from Cathy's accounts is that, though as pretty much an individualised act, how to teach is sometime structured via negotiations within module teams/groups. That said, there would be experienced lecturers within the module team who are resistant to change and shall stick to personal philosophies of teaching, and in this case there would be less mutual benefits or positive changes taking place. Hence, the specifics of each module are affected by the discussion within module teams or groups. In other words, the guiding principle links more to full coverage of module context and instructional orientations, as in this regard, the module team/group only check if the combination of instructional contents and approaches would contribute to the fulfillment of teaching aims and objectives. This added considerably to the lecturer's dilemma between enactment of more PjBL-relevant activities and of a traditional, didactic teaching.

5.2.3.5 Responses to policy context as indicated by the dean

Also worth mentioning from Cathy's accounts, from a more macro perspective, in bringing about the on-going, national standardisation assessment programme for all

teacher education institutions, which in effect has directed many adjustments in programme setting and teaching practices at the departmental level. The programme has brought about tremendous changes to the institution, since in the past they only followed a quite loose structure of management. Now, the standardisation has offered a framework to stipulate the six dimensions of qualified graduates, from morality, teaching philosophy, teaching competence, class management and so forth, with each containing concrete guidelines. Therefore, with way clearer principles and guidelines in place, all the modules are now set around the prescribed six dimensions.

Well-informed adjustments necessitate involving a wider group of stakeholders, including *"some local institutions, previous graduates, information base, students and lecturers"* in the process of programme setting. Cathy stressed that the department is now reaching out to such stakeholders in diverse ways, like collecting and responding to their feedback on the department's teaching and learning outcomes on a more frequent basis. Another markedly positive change accompanying the assessment programme related to more accurate, practical guidelines it engenders for improving teaching and learning locally, with enhanced affordances of advanced philosophies and paradigms of teaching, from those in the coastal areas.

5.2.4 Challenge facing the department as outlined by the dean

Having presented and analysed Cathy's accounts concerning the realities of teaching and learning within the department, this section moves on to challenges facing the department as another emergent theme. Here, the challenge is in the form of producing and disseminating research as one non-teaching aspect, and the ways such challenge affect department-level teaching.

To illustrate, though the locus of the section is on teaching and learning, according to Cathy, the faculty are under substantial pressure to attend to non-teaching aspects, e.g. personal professional development, which navigated attention which might otherwise have been directed towards improving teaching. To be more specific, according to Cathy, such developmental needs are intimately linked to personal research outputs in

recognised journals, in line with the broad categorisation of faculty career particulars into disciplinary teaching and disseminating research. Subsequently, more faculty concerns were placed on the latter category, as being more intimately linked to professional title accreditation. Cathy referred to the non-existence of any direct assessment or evaluation of the quality of teaching within the department, while sharing tremendous pressure with the faculty, of doing and publishing research:

"We are constantly reconciling the needs to improve teaching and disseminating personal research, as two essential aspects in our professional developments."

5.3 Ways of teaching at the department as indicated by another lecturer

Having presented the findings from the dean's accounts for a general picture of teaching at the department, this section describes findings arising from analysis of data gathered from an interview with the other full-time lecturer (peudomynised as Jenny) on the same module group with the lecturer experimenting PjBL. Interview questions covered some fundamental information, e.g. her educational background, experiences in the teaching profession, and more specifically perceptions of PjBL/experiences of experimenting PjBL. Also included were the instructional emphasis of the department, ways of designing teaching as shaped accordingly, and other aspects hindering innovating pedagogy. Thematic analysis of the interview added to understanding of the departmental-level culture of teaching, assisting in contextualising localisation of PjBL, and foregrounding the mediating role of the context that underpins the dissonances between the lecturer's educational beliefs and practices with PjBL in the later sections. Transcript for this interview is included in appendix two.

5.3.1 Personal interpretation of project-based learning by the other lecturer

Described first is the understanding of Project-based Learning as illustrated by Jenny. What emerged during the interview are two aspects:

1) A confusion and uncertainty with the concept of the PjBL approach.

2) An understanding of personal instructional approaches that mimic the PjBL approach

Such aspects are elaborated in more detail below.

5.3.1.1 A confusion and uncertainty with the concept of the PjBL approach

Contending that she was not so familiar with project-based learning, Jenny shared her personal interpretation of such pedagogy as follows:

The point is to assign some teaching tasks to students, like reading or writing, and firstly let them do some simulated teaching. Based on their performance and existing issues, we then provide targeted feedback. Also, we will make further adjustments to the module content or instructional methods.

Such accounts pretty much reflect a misconception with PjBL, reflecting the tenets of "task-based learning" other than PjBL, given the absence of a project as the central construct in PjBL.

5.3.1.2 ***Instructional procedures mimicking project-based learning***

Following the aforementioned conceptualisation of PjBL during interview, Jenny showcases an overall positive attitude towards the pedagogical potential of PjBL by stating that:

"...This does sound to be like a promising approach in promoting student classroom engagement."

She then recalled some of her past instructional practices which, in her understanding, parallels with Project-based learning. To exemplify, in contending that *"Though Project-based learning comes rather new to me, I might have actually used it somehow, just unconsciously..."* later, she referred such PjBL-relevant instructional practices to the classroom-based, simulated teaching as an integral component of the pre-service teacher training programme:

"We would firstly assign our students, namely pre-service K-12 teachers, to groups of

learners. Our students are then required to explore and employ teaching and learning materials as relevant, and to flesh out the teaching plan according to the format we provide."

She carries on to describe the next steps as involving

"…student undertaking textbook analysis and teaching designs. Then, we will offer practical teaching examples/cases to them at classes, and require them to conduct simulated teaching, following the steps within the given examples/cases.

During such process, we will identify the issues within student teaching techniques; for example, in dealing with a reading class, what activities should be incorporated prior to text passage reading, what should be notified, like non-verbal aspects, including gestures in teaching (教态 jiaotai), instructional languages, or ways of leading-in subsequent activities, are all details worth noting and promoting. I would then be able to offer targeted complements or corrections to such details surfing from student simulated teaching, in ways of simultaneous demonstration or clarification.

Jenny emphasised that such stages would form a complete case. Furthermore, each student would be nominated to perform one random stage, which lead to a lecturer-led summary at the final stage.

Also mentioned was whether such simulated teaching could be viewed as a completely controlled practice and the multiple form it takes:

Students will follow the stages as provided, especially those from the lecturer. However, during their simulated teaching, they need to exercise self-reflection to design given instructional languages. Normally we do such practices individually, during class activities. We also require students to do teaching plans, within groups.

Beginning in this semester, Jenny intends to infuse more student discussions in class. Still, the ratio and topics of student discussion are contingent upon the particulars of activities.

I would encourage group-based discussions in the cases of challenging ones, or simply discussions between desk-mates in dealing with easier ones; in the meantime, some activities can be done by individual students, so the modes would be quite flexible and not fixed.

This section showed that despite the lack of knowledge of PjBL, there appears to be a general recognition and welcome of such approach by Jenny. Her confusion with the PjBL approach parallels the aforementioned scanty application of PjBL in Chinese higher education (e.g., De Graaff & Kolmos, 2007) in the literature, and with wider adoption in those more enthusiastic in innovating pedagogies. Additionally, compared with the relatively wide adoption of PjBL in Engineering education (e.g., Xu, 2021) and English education (e.g., Ma, 2021; Wang & Liu, 2022), Jenny's confusion with PjBL indicates PjBL as a relatively innovative pedagogy in this case study of pre-service teacher education.

The intention of infusing more student discussion into classes reflects the trend noted by Dello-Iacovo (2009) that in Chinese HE where traditional teacher-centred lecturing and rote learning were gradually superseded by student-centredness, aiming to enhance student motivation, position students as active participants in the learning process, and encourage student-teacher and student-student interactions in learning. Nonetheless, such new teaching paradigm did not obtain wide recognition in China until 2018, when the MoE determined to improve the quality of undergraduate education which advocates the use of student-centred pedagogies (He, 2021).

5.3.2 Teaching within the department as indicated by the other lecturer

Having offered some information on the department, e.g., general information in section 5.1.2, and its realities of teaching and learning from the dean's interview accounts in section 5.2, the following part of this section moves on to describe teaching within the department, further drawing from Jenny's accounts, which may more precisely contextualise the enactment of PjBL at the departmental level. Jenny was on the same module group with the lecturer implementing PjBL.

Such contextual aspects are described in an order that considers each aspect's relevance to the research questions, namely how PjBL is adapted and the ways lecturer beliefs and context interact to shape such adaptations:

1) The curriculum structure as knowledge-based and practice-oriented;
2) Teaching as context- and policy-responsive;
3) Assessment for module teaching outcomes;
4) Ways of designing teaching;
5) Perceived challenges in innovating pedagogy.

Each aspect is to be expounded on in the sections below.

5.3.2.1 The curriculum structure as Knowledge-based and practice-oriented

As suggested earlier, Chinese education philosophy is rather confounding (e.g. Burik, 2010; Hung, 2015; Li, 1999), rendering local philosophy of education a patchwork of philosophical considerations of the function of education according to Chinese thoughts, yet also susceptible to the West or the interaction between indigenous and foreign cultures. Confucianism has shaped educational practices in China profoundly (Ji, 2021) and hence constitute part of the epistemological underpinnings of teaching in this study.

Yu and Yang (2009) note that common pedagogical practices in the Chinese learning context embraces the educational philosophy of "learning to use rather than learning by using" (p.32). This practice is partially confirmed in this study when Jenny gave general information concerning the curriculum structure within the department, as underpinned by an aim to cultivate student competence in teaching. Modules were structured in a way to firstly expose students to the basics and particulars of teaching, prior to hone their teaching practices. As such, learning seems to be deemed a pre-requisite for skill development.

That said, the overall programme is dividable into two broad categories: regular modules and other ones. That is, at regular modules, the first half is on cultivation of

student teaching skills, and the other for 'micro-teaching', namely a specified, simulated teaching practice for all students. By the end of their junior year, each student is required to design and perform a 10-minute teaching, focusing on one of the instructional highlights of English lessons: listening, speaking, listening and writing. Such practice forms part of the formative bit of the programme and will be assessed by the faculty.

Jenny went on to share more details regarding the micro-teaching:

It is a compulsory learning task for students to conduct simulated teaching. I am unsure of other institutions, but here we have such compulsory task to assess student learning outcomes and competence in teaching. This will normally take place in the 15th week of the academic semester. Each student will be assigned a mentor, before conducting designs of regular teaching and 'micro-teaching', in tandem with a demonstration and relevant materials, like PowerPoint slides. The whole process is characterised by mentor instruction and student practice. In the 14th week, the 'simulated teaching' will be firstly subject to assessment at the departmental level, with students conducting such teaching to some other instructors at the same department. I have partook in such assessment last year, and the first stage is to go through student demonstration. Then I raised questions in line with the ones within the national examination of teacher qualification. The overall process is also the same as the national examination.

As with Zhang (2021) that the unprecedented expansion in Chinese HE enrolments at the turn of the 21st century accelerates the massification of its HE sector, Hu (2019) cautions that the expanding number of students, as a result, calls for re-visiting the role Chinese HEIs serve in equipping students with transferable skills to survive and thrive in their later career lives. This was in a sense true as revealed in this study as Jenny stated, though on the one hand, 'micro-teaching' "*...is a necessary practice since it provides some entry for students to experience teaching and demonstrate personal internalisation of imparted knowledge and skills, so that they could hopefully develop teaching skills in a real sense, for multiple other occasions"*, it also

creates challenges since "*students are also required to employ certain skills that have not been covered by classroom-based teaching yet. This would be quite difficult for them to apply such skills flexibly. They need more guidance and familiarisation.*"

5.3.2.2 ***Teaching as Context- and policy-responsive***

The Western model is considered as orthodox for schooling (McEneaney & Meyer, 2000), leading to the adoption of Western educational practices as part of broader global governance in the educational sector (Robertson & Robertson, 2007). As such, the 'industrial-consumer' model is in place to nurture individual competence for the global economy (Spring, 2006; Larey, 2024). The act of teaching hence becomes more context-sensitive, taking on a new agenda with equal weight to transmitting prescribed knowledge and training skills for subsequent assessment and pragmatic purposes.

This is in a sense true in this study, as Jenny also spoke of the intent of the department in adapting teaching to contextual and policy aspects:

Beginning in this year, the newly stipulated 'double-reduction policy' has really brought about grim challenges to the employability of our students. So, our targeted instructions and trainings of teaching skills would, hopefully, enhance their adaptability to such workplace challenges. In the ideal scenario, our students would be able to formulate an immediate overall comprehension of the text passages they are dealing with; they could tell the specific modes of teaching and achieve well-informed design of class activities. This would be the baseline requirement for them.

She also shared personal experiences of making such adaptations, stressing the combination of the references from some national documents, and the local particulars of teaching:

I *am also responsible for the module 'English Syllabus and textbook analysis'; However, since now we are working on 师范认证 shifanrenzheng, (Certification of Teacher Treaining Programmes), there have been certain changes in our curriculum.*

In compiling the syllabus, we would refer to our instructional schemes, which are institutional-specific. Such schemes will also be informed and shaped by the overall national syllabus, policies or regulations, and are hence subject to change within given dimensions, like the double-reduction policy. We then further gear our module contents and activities towards such changes.

5.3.2.3 ***Assessment of module teaching outcomes***

It seems that the content and means of instruction were treated differently at the department. Some data in this study speaks to the possibility of implementing PjBL in Chinese HE by individual lecturers. The act of teaching at the department predominantly comprises imparting prescribed knowledge and skills geared towards assessment and examination purposes subsequently. For instance, Jenny shared that:

We have 教学督导 (jiaoxuedudao, inspectors of teaching) responsible for auditing and monitoring teaching. They will check whether each module is delivered on time and with quality. It is unacceptable if some lecturers simply display videos instead of teaching. Furthermore, since we are now concerned with standardisation of the pre-service teacher education programme. Those inspectors, some as departmental or institutional managers, will come to audit our classes as well, and provide advice for enhancement. This year the situation is quite unique and challenging since the standardisation is a real big issue, based on which we might also adjust module contents.

5.3.2.4 ***Ways of designing teaching***

Jenny's accounts provided details concerning department-level teaching and learning.

Lecturer autonomy: Firstly, it seems that the content and means of instruction were treated differently at the department. Some data in this study speaks to the possibility of implementing PjBL in Chinese HE by individual lecturers. For instance, in stressing ample coverage of module content, Jenny mentioned that,

Generally, we have autonomy in how to teach the module, or even to some degree

what to be taught. The overriding principle is how our teaching designs would serve to fulfil the instructional aims and objectives, based on each module. We also take into account student learning outcomes, informed by their performance at assessment tasks, like the examination.

Thus, lecturer autonomy in selecting pedagogy was surfaced during the interview, as Jenny contended:

…to some extent we are free to select ways of instruction…but on some occasions, such amendments in instruction are not attempted and shaped by lecturers only. They need to be processed to our teaching and learning group (教研组), with managers making the final decision based on results from the questionnaires to students.

Lecturer workshops: Aside from updating knowledge in teaching via negotiation within module teams/groups, Jenny mentioned the opportunities for self-directed learning, in the form of themed workshops, organised by the department on an occasional basis.

I normally partake in regular meetings within our department, relating to some task arrangements and sometimes workshops by experts from outside.

She further commented on the relevance of such workshops as:

From my view, I prefer to partake in those more relevant to my programme, English teaching. Some certain workshops are intended for other disciplines, like English literature or translation studies, and would not arouse my interest that much.

Communications within the module group as the teaching unit:

As aforementioned by Jenny, there existed 'teaching groups' for some modules of two or more lecturers. Sometimes discussions are held within the group relating to specifics of module teaching. As she used to co-teach one module with Dave, they form such a group and Dave, being more experienced in teaching, often guided the discussion. She reflected on such seemingly "apprenticeship" as follows:

I would say that the pedagogy for my class would be different, though I would indeed draw from his ideas of teaching. This academic semester is quite different, since I have audited Dave's module throughout, so there are certain similarities in relation to some teaching contents or modes.

Meanwhile, aside from peer learning from Dave, Jenny intends to retain given particulars of her own teaching:

However, because of certain aspects including classroom dynamics and my teaching philosophies, the instructional methods differ, including arrangement of student classroom activities, as well as some instructional contents. In the past when I did not audit his classes, our instructional/teaching contents were also different.

She also noted some changes to the module in the semester:

Starting in this semester, we have co-complied the module teaching plan, with adjustments to some instructional/teaching contents and assessment criteria. Also, I have instructed sophomores, so I also place emphasis on the teaching of sophomores specifically in this semester. I have delivered this module for two years, and this year, we have changed the module to some extent.

Valuing student feedback: In mentioning the overall curriculum to be highly adjustable, Jenny noted the crucial role of student feedback:

We are running a constantly flexible curriculum. That is, in addition to following the syllabus in effect, in the meantime we are keen to learn about student feedback to reconstruct the curriculum.

In my understanding, the syllabus and curriculum are two disparate entities. The former is about the teaching and learning objectives and requirements for each module, and the curriculum, in a broader sense, concerns the setting of modules from the perspective of 教研组 (*jiaoyanzu,* teaching and researching group).

In other words, it is about the incorporation of student teaching practices into classes.

Students are required to conduct simulated teaching, which would involve a set of teaching designs, for instance how to lead-in following activities to achieve better coherence, and also ways of demonstration, and other activities. But now, all such trainings and instructions are embedded into the very module 'English Teaching Skills' and the previous module is cancelled, considering student feedback that there might be too many overlaps between the previous module and others they are going to undertake in the subsequent semesters. So now we have condensed and refined the curriculum design into a new one.

The overall curriculum is subject to constant change based on instructional outcomes and student feedback.

5.3.2.5 ***Perceived challenges/impediments in innovating pedagogy***

Another emerging theme on cultural scripts for teaching at the department relates to the challenges of innovating pedagogy, as shared by Jenny.

Firstly, she stressed the importance of research dissemination in her professional development as a lecturer:

F*or me, I am quite concerned with personal professional development. When I first served here as a lecturer, I was assigned to a completely different set of modules, and progressively will be in charge of other sets of modules. I think such arrangement sort of breaks down the coherence in my teaching. I would certainly prefer to deliver some modules continuously, progressively, over consecutive semesters, to identify the essentials, instructional highlights and challenges, towards a comprehensive insight of how to teach. Secondly, I would say producing academic research is a major concern, and that by far the lecturer-student ratio is somewhat imbalanced. That is, we are faced with onerous instructional tasks, and some lecturers might be responsible for two or three modules. The modules are also quite new to us, so a lot of time and energy might be invested into analysing and digesting the module particulars. This is much workload and leaves insufficient time for research. Therefore, I find my instructional tasks conflict with my research, which is ironically*

more vital to lecturer professional development.

Aside from the investment of time and energy in research output, the absence of workable moule groups was mentioned as another hinderance to pedagogical innovation:

I would say that we have not necessarily formed workable module teams or groups, because we are always short-handed. There are only several lecturers here, and also fluctuations within lecturer personnel on an annual basis. There used to be two more lecturers here with us, but they have been assigned to other departments. So normally there are just me and Dave within the module group, and we discuss issues of how to better teach the module.

Despite departmental endeavour to promote lecturer professional development by multiple means, Jenny still considered such chances to be inadequent:

Our department and institution do encourage us to conduct self-directed learning to enhance teaching, like partaking in exchange programmes with other institutions for fresher insights. They also offer us some themed forums or workshops to expand outlooks, or fund our study at some more prestigious institutions; I have less knowledge of collaboration and communication with other institutions, which might come more natural to our managers.

5.4 Classroom observations of other two modules within the department

The previous section 5.3 examines the department-level teaching from the interview data. This section moves on to report on findings that emerged from an analysis of classroom observations between October and November, 2021. To gain an overall picture of teaching within the department, two sessions of researcher non-participatory classroom observation were conducted simultaneously. Such sessions further reflect the realities of teaching at the departmental level and were then analysed from the lens of cultural script for teaching. Such observations were conducted with the intent to explore the existence of shared instructional approaches

by the lecturers within the department.

5.4.1 Two observational sessions: Overview

One session of the class was observed, with field notes being produced with the intent to capture both a general impression of what took place in classroom settings, and particularly the way teaching and learning were structured. Considering the analytic focus of the study on lecturers, special attention was paid to the following: instructional language of the lecturer, modes and frequency of student-student and student-lecturer interaction, forms of classroom activities facilitating individual, peer or group work, and an immediate post-observation reflection of what took place from my researcher point of view (see Appendix 3 for an example of observational notes). Such field notes were produced to build a narrative of what conspired, hence allowing for identification of emerging themes relating to the two research questions of the study.

To be more specific, the observations facilitate the exploration of whether there was shared instructional approaches among the lecturers, thus enriching understandings of the departmental-level realities of teaching and learning, from the lens of cultural scripts for teaching. In so doing, it aims to serves an epistemological context to assist in sensemaking of the ways PjBL was adapted by bottom-up endavour from one lecturer as presented in later sections.

5.4.1.1 Classroom layout

This section describes the classrooms where the observations took place, so as to show how they might affect the activities of teaching and learning. All classroom observations at case study one took place in the Main Building, which comprises multiple-sized classrooms. Each classroom was equipped with electronic devices, e.g. a blackboard with a podium, a chair on a raised dais in the centre, a projector and a screen. Teachers can use a laptop computer or other device to pose relevant materials on the screen, like PowerPoint slides, videos or audios. All classroom observations were undertaken at medium-sized classrooms, with students sitting in desk pairs,

directly facing the blackboard.

Moving on from such description of the physical layout of classrooms, I then describe findings from each of the two observations as follows: firstly, I describe the teaching and learning activities transpired, in tandem with an interpretation of what seemed to have taken place during each observation.

5.4.2 One session from the module "English Reading and Writing"

1) Description

The observation of this session took place on 2nd November 2021 in the Main Building. Their was a roughly 20-80 ratio of male and female students from the Department of Foreign Languages. The observation was added with a view to furthering understanding the 'scripts for teaching' within the department, in the form of a typical lesson within the overall programme. Prior to the observation, I was able to reflect upon the literature, e.g., that the pedagogy within Chinese pre-service teacher education seemed to be often in the form of teacher-fronted lecturing with controlled practices.

Then, in the class, there was firstly an introduction to the main learning tasks for the whole class by the teacher. It became obvious that the session was mainly about learning a given passage from the textbook, namely selected paragraphs of "The Gift of the Magi", and students were expected to analyse the main elements within the text and complete the following exercises. Firstly, the teacher directed the whole class to turn to page 33 of the textbook and continue reading the text aloud, followed by his raising comprehension questions to the whole class. He then elicited student attention to the first paragraph and asked one student to do English-Chinese translation.

The remainder of the session comprised a series of seven activities:

Field notes specify that, in the first activity, the teacher signaled O Henry's use and choice of wording. He then read through the text, pausing occasionally to either raise comprehension questions or require student English-Chinese or Chinese-English

translations of selected contents. New vocabulary and phrases were highlighted in relation to meanings and part of speech and specified to be used for after-class translation exercises.

The second activity was a task of differentiating the three words “drag”, “push” and “pull”. Chinese meanings of such words were posted on PowerPoint Slides, together with several example sentences and phrases. Another student was asked to do Chinese-English translation of the example sentences.

The third activity relates to demonstrating the pauses within the text. Two students were nominated to read aloud the text in the PowerPoint Slides, with words between pauses being coloured read. The teacher then read aloud the last two paragraphs to the whole class, and paused to stress the new words and phrases. Then, the teacher marked the end of text learning, asking for student response and reflection of individual learning of the text. He walked around the classroom to assist in student comprehension.

The fourth activity took the form of appreciating the literary elements of the text. The lecturer elicited student attention to the PowerPoint slides for relevant clues: genre, genre, setting, narrator, tone, protagonist and antagonist, major conflicts, climax, and major figures of speech. He then raised relevant comprehension questions to the whole class, and later provided answers.

The fifth activity was in the same patten as before, so a sense of routine had built up. Continuing with text appreciation, the teacher dug into the main figures of speech within the text and the symbolic meanings of several repeated images. In this case, another student was chosen to share personal interpretations of a given image. The lecturer replied that it would be better to further link the image with the personal experiences of the author.

The sixth activity was concerned with completing exercises in the textbook. The lecturer asked the whole class to turn to the page and offered some answers on the PowerPoint slide. In this case, he elicited student attention to some vocabularies

within the exercise, e.g. “morph”, “adapt” and “morose”, then explicating the word meanings and synonyms on the slide. One student was asked to offer answers to the last two exercises.

The final activity consisted of student presentation. That is, two students stepped onto the platform to give a presentation on comprehension of the same text, with focuses on its writing techniques and some new vocabularies and phrases. The students seemed to have prepared such presentation beforehand, and the content was pretty much a summary of what has been covered in this session. The lecturer then gave brief comments on several aspects, e.g. the content, student pronunciation and gesture, offered suggestions for enhancement. As before, he called class attention to some more expressions and stressed how they could be used in English writing.

2) Interpretation

One observation from the field notes is that the assumption that Chinese pre-service teacher education was mainly delivered via didactic instruction, with an emphasis on transmission of conceptual knowledge from the textbook, was confirmed by this observation. That said, module on English reading and writing mainly comprised teacher-fronted, drilling activities, with students performing as knowledge recipients.

Moreover, later filed notes captured that the instructional emphasis was firstly placed on student text comprehension together with enhancement of some grammatical knowledge. Field notes indicate my interpretation that the instruction is textbook-informed, since the lecturer seemed to guide the whole class to follow the exercises and activities specified in the textbook.

At the end of the observation, as field notes indicate, the fact that two students did presentations of text comprehension could suggest that another instructional emphasis for this module is to strengthen student competence in teaching, as pre-service K-12 English teachers. The lecturers paid attention to several aspects, which seemingly to be related to the dimensions of competences for English teachers.

A final descriptive reflection on this observation is that within the prgramme of pre-service teacher education, there seemed to be an instructional tendency to see to strengthen student know-how of teaching by firstly attending to their accumulation of disciplinary knowledge, and such knowledge accumulation seemed to be conducted via traditional lecturing. All the same, it seemed evident from the lecturer's guiding the students towards completion of textbook exercises and further giving comments on two students' presentations as seemingly a teaching practice. However, such presentations constituted only a minor time frame of the session, and the lecturer seemed to prioritise transmission of conceptual knowledge via a passive, teacher-centric approach.

Having described the teaching and learning activities from one session of the module, together with an interpretation of the instructional approaches in use, from my researcher perspective, the next section follows the same pattern by describing and interpreting one session from another module at the department.

5.4.3 One session from the module "Comprehensive English"

1) Description

The observation of this session took place on 5th November, 2021 in the Main Building. There was an approximately 30-70 ratio of male and female students from the Department of Foreign Languages. Again, the teacher responsible for the session was contacted in the first place for consent and confirmation that this would be a typical lesson for freshmen students within the overall programme. Combined with the former observation, this allowed me the opportunity to observe the department's normal teaching methods. The teaching materials used in this observation were also both the module textbook and the teacher's PowerPoint slides. The teacher introduced me to the class at the beginning of the session.

Field notes specify that the instructional language in use is a combination of English, for illustrating points of knowledge, and Chinese for aiding student comprehension. The first activity consisted of the teacher conducting a dictation of the vocabulary

covered by the last session, by reading the vocabulary aloud in English and asking the class to write down the words, their Chinese meanings and parts of speech. Then the students were required to score the dictations done by another class, with standard answers read aloud by the teacher. Thus, the teacher seems to be facilitating a controlled practice to check the students' grasp of the vocabulary.

In the next activity, a student came to the platform and did a simulated report on the latest international and domestic news, particularly on the ongoing tension between Russia and the USA, followed by the city's weather forecast. The teacher then asked the class some comprehension questions based on the report, focusing on 'What', 'When', 'Why' and 'How' issues. She then commenced in Chinese, commenting on the quality of the presentation, recognising its coverage of content, yet simultaneously correcting the students' pronunciation of several words, like 'arcane', 'unique' and 'bilateral'.

The third activity comprised of the teacher turning to the module textbook, checking the answers to four comprehension questions with the whole class. She then nominated one student to answer each question, giving immediate comments in Chinese and stressing the key words. The whole class was required to note down the key words and memorise example sentences within the textbook.

The fourth activity was an exercise in English listening. The teacher displayed the transcript on PowerPoint slides, then played the exercise audio. Next, she checked the answers to the exercise with the class, by raising questions for student response.

The next two activities, concerning text appreciation, were inspired by the module textbook. They entailed the lecturer specifiying the structure of the text passage as an essay, proposing comprehension questions to aid student understanding of the text structure, contents and underlying emotions. The students were then required to read closely paragraphs 1-2, in light of the comprehension questions displayed on the PowerPoint slides. The teacher helped student understanding of such questions by allowing discussion with desk mates. In the meantime, she walked around the

classroom to check and aid in such discussion. The lecturer carried on with answer-checking with the whole class, again by nominating one student for each of the six comprehension questions, before asking the class to turn to the text for relevant information.

The focus of the last activity of the session was on target learning of grammar. The lecturer extracted several sentences from the text, for student structural analysis in relation to grammatical elements, types of conjunctions and types of subordinate clauses. At this point, she monitored how students were progressing by interacting with some students and eliciting their attention to some previously covered concepts. Instructions were given at the end of the session concerning preparation for the next week.

2）Interpretation

Again, the module is reflective of the departmental-level realities of teaching, and more precisely how regular teaching of the English major is enacted on the ground. this provides an understanding of the context surrounding the lecturer's adaptation of PjBL.

One observation made in the field notes is that building upon the module content and nature, there seems to be a prevalence of lecturer-fronted, didactic teaching featuring many controlled practices, e.g. dictation, checking of standard answers to textbook exercises. Notwithstanding the ratio of lecturing, another field note pinpointed to the attempt on stimulating student classroom engagement, e.g. report and presentations. The presentations, especially involved at least two presenters, and thus might necessitate some peer interaction and learning beyond classroom settings.

Moreover, the module has been charactertised by lecturer-centredness focusing on imparting of disciplinary knowledge, and therefore the types of in-class interaction are overwhelmingly between lecturer and students, and rather occasionally peer discussions between the desk mates. Still, field notes show an impression that the

teacher did diversify classroom activities by infusing peer discussions, though it is unclear if students were discussing the topic given by the teacher. Simultaneously, it can be captured from the teacher's walking around the classroom as a way to assist in student discussion. What may be inferred from such action is that in addition to the dominance of teacher-centred approach, there is still evidence of an inductive, learner-centred approach.

Another descriptive reflection of such observation is that, notwithstanding the instructional emphasis of the session on covering prescribed textbook contents, some real-world relevances are present within student oral presentation of what was going on globally. At this point, field notes contain entries regarding the comments from the teacher. The comment "You could do better next time by correcting some word pronunciations and improving presentation skills" appears to imply a feeling on behalf of myself that the aim of such presentation was not for communicating some authentic issues but towards the end of language learning more narrowly. What students were required to note was more about accumulation of vocabulary.

Though students did involved in asking and responding to questions from the textbook, such questions were predominantly on vocabulary learning or text appreciation, and did not seem to lead to any further discussion. As such, field notes indicate, the teacher appeared to be comfortable in being the dominator of classroom atmosphere, as conducive to textbook coverage and student comprehension. That said, the overriding concern seemed to be on imparting of language knowledge than cultivation of transferable skills.

5.4.4 the realities of teaching and learning within the department: a summary of the two observational sessions

In summary, this section has described two observations of other two modules within the same department, at the research site between 2nd and 5th November, 2021. Though it is undeniable that such observations do not hope to be definitive, they however provide first-hand data to two other teachers' classroom-based teaching in detail; they

could hence be considered supportive of findings in the next chapter.

Findings from the two observations confirm that sessions are mainly concerned with (1) understanding and interpreting contents from textbook and (2) learning of vocabulary, e.g. word meanings and usages. In so doing, both lecturers appeared to follow the IRF (initiation of questions from the teacher-student, followed by response-feedback from the teacher) regime with frequent utilisation of comprehension questions to check student command of the disciplinary knowledge. Such predilection for teacher-centred aproach can be partially attributed to the instructional emphases on disciplinary knowledge, especially the learning of new concepts, vocabulary, and text passages. The use of student presentations and oral reports would be decoded as a way to demonstrate their grasp of such disciplinary knowledge, yet also illustrative of an instructional tendency by lecturers in diversifying pedagogy, promoting student engagement and add to their repertoire of K-12 English teaching. What seems to have transpired in the two observations is that the instructional approaches pretty much echo the traditional approaches to teaching and learning in China (see chapter 2).

As a consequence of piecing together key information from field notes, it appears that such sessions shed light on the cultural script for teaching within the department, that is, normative teaching features classroom management by lecturers, where the majority of in-class time features teacher-centric instruction with teacher-led memory- or comprehension-level questions which require students to recall and acquire often prescribed information. Such type of instruction is embodied by the use of traditional, teacher-centric approaches targeting effectively transmitting conceptual knowledge. Moreover, such instructional emphasis on conceptual knowledge suggests a shared epistemology that knowledge is objective, relatively fixed rather than constructive.

From a description of findings from an analysis of two sessions from two other modules at the department, the next section moves on to describe adaptation of PjBL by one lecturer, from analysis of findings from the module teaching plan, interview concerning lecturer conceptualisation of PjBL in relation to his professed beliefs on ways to teach the module, and observations of the weekly lectures from the module.

5.4.5 A summary of the context of institution A: institutional/departmental cultural scripts for teaching

This section offers a contextual profile of institution A and its department of foreign languages, by presenting and analysing information on its general information, instructional emphases on student cultivation,

One interview was conducted with its dean and the other lecturer on the same module group with the lecturer enacting PjBL, followed by a description and analysis of two sessions of two modules within its department of foreign languages. Taken together, there exist several notable features in the context of institution A.

Firstly, being a pre-service teacher college, institution A is primarily concerned with enhancing student employability as future K-12 English teachers. This was stressed both on the institutional homepage relating to the six dimensions of student competence (see section 5.2.2) and the interview accounts by its dean and one lecturer (see section 5.2.3 and 5.3). Such overriding emphasis constitutes a dominant construct within the cultural scripts for teaching at the institutional/department.

In line with student employability as a major concern and dominant script for teaching, it is understandable that the programme, the departmental-level teaching and learning was structured accordingly. That is, the existence of a 'practicsing section' as central to the programme (see section 5.2.3.2) and the joint programme the department engages with local schools and enterprises (see section 5.2.3.3). All such can be deemed as the reflection of granting students more opportunities for vocational development. Consequently, the instructional preferences among its faculty members, as another dominant script in place, seemed to speak to enhance student competence in teaching, as an essential aspect in their job-readiness. This was also reflected in the lecturer's accounts (see section 5.3.1.3) on the practicsing section within the programme structure, and one compulsory task for students to conduct simulated teaching. One observational session (see section 5.4.2) seems to reflect such script, as some in-class time was spent for student presentation as one teaching practice,

alongside transmission of conceptual and subject knowledge.

Secondly, the observations (see section 5.4) indicate the prevalence of a didactic, teacher-fronted instruction. The other lecturer's confusion with the concept of PjBL (see section 5.2.1.1) and interpretation of PjBL as more of a task-based approach (see section 5.2.1.2) also lend credence to the script for teaching as both stressed and observed.

Drawing upon the other lecturer's accounts on the nature of the programme (see section 5.2.1.3), a third cultural script for teaching seems to be in the form of teaching as a policy-responsive act. This was illustrated in the sense that the 'double-reduction' policy could necessitate amendments in teaching.

The last two inferable scripts for teaching relate to the flexibility in designing teaching, and the constant need to see to research output as essential in personal developmental needs (see section 5.2.1.3), as can be captured from the lecturer's accounts and also from the two lecturer-fronted observational sessions. Interestingly, the two scripts act as space for, and hinderance to, pedagogical innovation at the department respectively.

Taken together, four cultural scripts for teaching at case study one have surfaced from the analysis of document, interview and observational data:

1) A pivotal concern on student employability;
2) The prevalence of a didactic form of instruction;
3) Lecturers' autonomy in designing teaching;
4) The pressure from personal professional developments, especially in publishing research.

This section has drawn upon various sources of data to explore cultural scripts for teaching at case study one, to contextualise the PjBL adaptation by the lecturer.

5.5 Lecturer adaptation of project-based learning: the module "English teaching skills"

This section attends to report data from an 18-week compulsory module, "English Teaching Skills", enacted as part of the pre-service K-12 teacher training programme. The module constitutes a crucial part of research data which offers evidence for a cross analysis of research data from all two modules in chapter 7. This module was selected since it includes examples of Project-based learning, to which a working definition was developed in section 3.2.3.

The section can "stand alone" for readers interested in Project-based learning within the subject discipline of teacher education. Instructional approaches utilised by the lecturer included: project work, project-relevant discussion, lectures, drilled practices of activities within the module textbook, the use of extracts from other materials and reflection.

The section 5.5 is divided into 3 sub-sections:

Section 5.5.1 introduces the module, in the form of direct quotations from the module teaching plan. Data findings are then presented and interpreted via the working definition of PjBL in this study. Also covered is the overall module structure and instructional activities to be used.

Section 5.5.2 builds upon the lecturer's interview accounts of Project-based learning, as feeding into his beliefs of how to teach;

Section 5.5.3 focuses on my non-participatory, in-site observations of the weekly sessions of the module, namely the 'practising' phase of Project-based learning on the ground and what transpired during the 18 weeks of the module, including lecturer and student responses. Such section is further divided into three phases: introductory of the project (lectures 1-3), development of the project (lectures 4-16) and extra-curricular discussions of the project between the lecturer and student project groups (two other sessions). There are mainly two underpinning reasons for analysing lecturer belief prior to analysing his practice. Firstly, it would be useful for the reader to gain in section 5.5.2 some idea of the participant's perceptions of PjBL, before moving on to his implementation of PjBL. Secondly, the study aims to unpick the

ways PjBL was understood and used from the lecturer's perspectives, interview data serves an entry into the lecturer's beliefs as complex systems and was treated first. Moreover, it seems more coherent to integrate data and interpretation, so as to show the process of my researcher interpretation via the interpretation process, in light of Complexity Theory.

The following section presents data from the module teaching plan, compiled by the two lecturers responsible for teaching the module. The lecturers have been named Jenny and Dave.

5.5.1 Specifics of the module: information from the module teaching plan

5.5.1.1 Basic information

According to the module teaching plan, "English Teaching Skills " is a compulsory module for English majors in institution A. This module aims to enhance students' English teaching skills in secondary schools. It covers diverse instructional contents such as phonetics, vocabulary, grammar, discourse, listening, speaking, reading and writing. Through regular class sessions and simulated teaching, it carries out training of teaching skills on blackboard writing, simple drawings, introduction, questioning, presentation, practice, change, ending, etc, in a purposeful and planned manner. In terms of classroom teaching organisation, this module is teacher-led, student-centered, and training-oriented. It adopts cooperative learning, inquiry learning, experiential learning, and autonomous learning, and makes full use of modern teaching methods to train various teaching skills that qualified foreign language teachers should have. At the same time, the module sought to integrate the theoretical knowledge learned in the prerequisite modules such as *Pedagogy, Psychology*, and *English Teaching Design* and apply them to various skills, enhance students' teaching skills in the interaction between theory and practice, thus laying a solid foundation for them to be competent teachers and achieve sustainable development after graduation.

5.5.1.2 Teaching aims and objectives

The expected outcomes from the module are delineated by Dave within the module teaching plan, as follows:

By the end of the module, students would be able to:

1) Based on given teaching content, to design different types of classroom blackboards and draw corresponding types of simple drawings; through teaching cases, explore the similarities and differences between regular classes in terms of concepts, models and methods.

2) As groups, select a particular teaching unit from the current K-12 English textbooks, e.g., reading, writing and listening and speaking material, negotiate the division of labour with group members, design a regular class with clear goals, workable structure and diverse activities, and evaluate, reflect and summarise the introduction, questioning, ending and other classroom micro teaching skills after simulated teaching.

3) Understand and sort out the categories of language knowledge and language teaching skills, to prepare for interview questions in the examination for K-12 English teacher qualification, design teaching activities facilitative of achieving instructional goals, thus better recognising the significance and professionalism of K-12 English teaching, and gradually clarify career development goals.

5.5.1.3 Assessment strategy

Student learning outcomes from the module were to be assessed mainly through a summative examination, checking their knowledge of previously imparted concepts. Students were also required to demonstrate competence in practical aspects like stick drawing, teaching design and teaching practice, which constituted the formative

elements of the module. The group-based teaching practice, explicitly, constituted aspects relating to Project-based learning within the module.

1) Formative assessment (constituting 40% of student overall score):
    - Blackboard Stick drawing (20% of the formative component)
    - Teaching practices in the form of group-based teaching demonstration (40% of the formative component)
    - Teaching design as preparatory for the upcoming examination for teacher qualification (10% of the formative component)
    - Reflective journal (30% of the formative component).

2) Summative assessment (constituting 60% of student overall score):
    - A paper-based examination.

Explicit information regarding assessment criteria is also included in the module teaching plan:

1) Stick drawing (20% of the formative assessment)

Students need to complete the specified categories and number of stick drawing. The specific scoring criteria are as follows:

(i) To meet the specified number (10 points, 2 points will be deducted for one less);
(ii) Complete the specified categories (10 points, 5 points will be deducted for one less);
(iii) Under the guiding philosophy of "being simple", use simple lies to complete understandable shape (15 points);
(iv) Draw by hand, use straight lines or a few shapes (35 points);
(v) Be able to capture the characteristics of objects, with realistic and vivid images (30 points).

2) Group-based teaching demonstration (the Project-based learning element of the module, 40% of the formative assessment)

Students are required to negotiate, design and conduct group-based teaching demonstration. The demonstration was assessed on four dimensions including (i) the overall efficiency of group-based collaboration, (ii) distribution and completion of tasks by individual members, (iii) use of instructional methods, e.g., coverage of instructional focuses, instructional language and style, and (iv) overall quality of teaching demonstration. More details are as follows:

Excellent (90-100 points): The group-based collaboration is effective, with each member performing clear tasks; based on relevant content of the textbook and classroom specifics, the student group is able to select appropriate instructional method, with clear teaching objectives highlighting instructional focuses, with understandable and concise instructional language and natural instructional style. The teaching demonstration is overall completed efficiently and creatively.

Good (80-89 points): the group-based collaboration is effective, with each member preforming clear tasks; based on relevant content of the textbook and classroom specifics, the student group is able to select relatively appropriate instructional method, with relatively clear teaching objectives highlighting instructional focuses, relatively understandable instructional language and relatively natural instructional style. The teaching demonstration is overall completed well.

Medium (70-79 points): the group-based collaboration is satisfactory, with each member performing adequate tasks; based on textbook contents, the student group is basically able to select fitting instructional method, with understandable teaching objectives, instructional language and basically natural instructional style. The teaching demonstration is overall satisfactory.

Pass (60-69 points): the group-based collaboration is average, the student group can

select certain instructional methods based on relevant textbook contents, with partially clear teaching objectives highlighting some key points, and overall understandable instructional language. The student group is able to complete the teaching demonstration.

3) Trail teaching based on requirements from national examination for K-12 teacher qualification (10% of the formative assessment)

Select materials from the existing English textbooks for secondary education, and compile eight interview test topics, including phonetics (15 points), vocabulary (10 points), grammar (15 points), discourse (15 points), listening (10 points), speaking (15 points), reading (10 points), and writing (10 points).

Scoring criteria: (i) the appropriateness of topic selection and design of learning activities; (ii) the length of the teaching material; (iii) the compatibility between the teaching material and the target student level; (iv) the compatibility between the teaching material and the module-specific teaching aims and objectives.

4) Student reflective report (30% of the formative assessment)

The report was assessed on four dimensions including (i) attitudes in learning, (ii) understanding of different modes of skill training for regular teaching and (iii) explanation of personal growth over the module duration, e.g. updates in personal philosophies and practices of teaching, and enrichment of disciplinary knowledge.

Excellent (90-100 points): demonstrating positive attitudes in learning, with a clear understanding of the highlights of different modes of skill training in regular modules. The students are able to reflect in detail, upon personal growth in instructional philosophies and practices, after group-based teaching as the module unfolds, with articulation of the accumulation of disciplinary knowledge.

Good (80-89 points): demonstrating positive attitudes in learning, with a relatively clear understanding of the highlights of different modes of skill training in regular modules. The students are able to reflect upon personal growth in instructional philosophies and practices, after group-based teaching as the module unfolds, with an overall clear explanation of the accumulation of disciplinary knowledge.

Medium (70-79 points): demonstrating correct attitudes in learning, with a basic understanding of the highlights of different modes of skill training in regular modules. The students are basically able to reflect upon personal growth in instructional philosophies and practices, after group-based teaching as the module unfolds, with a satisfactory explanation of the accumulation of disciplinary knowledge.

Pass (60-69 points): demonstrating basically positive attitudes in learning, with a relatively clear understanding of the highlights of different modes of skill training in regular modules. The students are able to reflect partially upon personal growth in instructional philosophies and practices, after group-based teaching as the module unfolds, with a partial explanation of the accumulation of disciplinary knowledge.

5.5.1.4 Teaching and Learning strategy

The module teaching plan also contains general information regarding ways of teaching and learning the module. Placing emphasis on completing the listed module aims, dividable into (i) micro teaching skills including blackboard writing, stick figure drawing, (ii) practical competence in teaching K-12 English lessons, including listening, speaking, reading and writing and (iii) preparation for other specific situations of teaching, including 'micro-teaching' as part of the programme requirements, and teaching demonstration for the national examination for K-12 English teacher qualification. Corresponding teaching and learning strategies are listed under each instructional aim, as follows:

Learning aims	Teaching strategy	Learning strategy

I.	Development of micro teaching skills	Lectures, case studies, teacher comments guidance	Attending classes case studies group discussion classroom quiz
II.	Development of practical competence in teaching different lessons	Case studies, teacher comments and guidance	Case studies group discussion individual presentations
III.	Preparation for other particular situations of teaching, e.g. micro-lesson and teacher qualification	Teacher comments and guidance	Group discussion Individual presentations

Table three: teaching and learning strategy for the module-case study one

The module teaching plan also sequences such aims in a progressive manner, that said, the students would be better able to fulfil expected learning outcomes through completion of those within the previous level. The inclusion of student group discussion and presentations was intended to develop student competence in teaching different K-12 English lessons and across different scenarios. Aside from active classroom participation and peer discussion, emphasis is also placed on student self-directed learning:

This module requires students to read reference books after class and independently learn relevant content from extracurricular learning resources on websites, so as to deepen understanding of the module content. Starting from what has been taught in classes, students are encouraged to search for and collect various learning resources conducive to deepen their understanding of the module, by especially focusing on the key and difficult parts of the module. Upon collection of such adequate resources, students can analyse, compare, and generate topics for further exploration. Then, they can engage in peer discussions for ideas exchange and mutual learning. This section is part of, and subject to the formative assessment bit of the module.

Following the focus on student self-directed learning, the teaching plan offers an extensive list of module textbook, key texts and additional reference books or websites for reading and self-reflection.

5.5.2 The lecturer's conceptualisation of PjBL

Prosser and Trigwell (1999, 2006) noted that though there were given pedagogies espoused by Chinese scholars, pedagogical use by practitioners was mainly shaped by personal interpretations of teaching. Underlying the application of given pedagogy existed teacher beliefs of the essential goal of teaching (Yin et al., 2017). Therefore, having discussed the institutional/departmental context of this study in section 5.2 and 5.3, alongside the basic information of the module in section 5.5.1, this section now turns to the investigation of the lecturer's (pesudommysed as Dave) conceptualisation of PjBL in relation to personal educational beliefs.

Data presented in this section are mainly gathered from an interview with the lecturer prior to the module. There are two main reasons underlying the analysis of lecturer beliefs before the analysis of his practices:

1) As teacher's potential responses to classroom events are affected by their belief systems (Davis & Sumara, 2006), It is therefore instructive for the reader to gain in section the beliefs held by Dave, concerning the definition and implementation of PjBL, before moving on to his

practice of PjBL in the following section.

2) A central aim of the investigation lies in understanding the PjBL adaptation from lecturers' perspectives, namely how they interpret PjBL based on personal beliefs. Interview data allows more access into lecturer belief systems, and as such was treated first.

This section seeks to respond to the second research question: how do systems of lecturer beliefs and practices interact to shape their adaptation of PjBL? The proceeding analysis of lecturer belief and practice builds upon complexity theory. That said, Dave's belief is regarded as a complex system that comprises a line of aspects, interacting in given ways to constitute the overall system. As such, the following section draws from Dave's professed beliefs, from interview accounts, so as to unravel the innate complex interplays between the aspects of his belief system. Transcription for this interview is included in appendix three.

5.5.2.1 Heterogeneity of the lecturer's professed beliefs regarding teaching and learning in pre-service teacher education

I regard Dave's professed belief as part of his personal belief system. For a deep insight into his professed belief, a set of aspects are considered: (i) his background in the profession, including prior learning and teaching experiences, (ii) his interpretation of, and planned experimentation with PjBL. Such aspects are further related to his instructional practices since being an agentive individual, his beliefs regarding how to teach the subject would suggest his adaptation of PjBL. Therefore, in recognising the innate complexity of lecturer belief system and the working definition of PjBL developed for this study. I invited Dave to share his perceptions of PjBL, belief concerning teaching and learning in pre-service teacher education, and his role(s) in such process. The point of exploring such aspects is that they could help extrapolate the innate complexity of Dave's belief system.

5.5.2.2 Features of the lecturer's beliefs concerning teaching the major of pre-service K-12 teacher education

Dave's professed beliefs concerning how to teach the major comprise his belief about the instructional aims and objectives, the core content to deliver and pedagogical approaches that fit. His personal interpretation of PjBL points to the diversity within his professed belief. Since PjBL might pose epistemological challenges to Chinese practitioners (reference), the constructs of PjBL would assist in exploring Dave's beliefs concerning teaching the major of pre-service English teacher. Five aspects surfaced in the analysis accordingly.

Firstly, it could be captured from Dave's professed belief concerning how to teach, that he is autonomous in developing a conceptual understanding of PjBL, before adapting it to classroom particulars. He favours PjBL by the perceived positive link between the use of 'project' and his instructional aims and objectives. On one hand, he favours PjBL on the ground that it boosts teaching and learning outcomes under classroom circumstances, by promoting more types of interaction both between him and students and between/among students:

Students would be able to work with peers more frequently and effectively via the PjBL approach…it would also enhance my interaction with them in class, sometimes by means of workshops. Such diversity of interaction would make the class more interactive.

In so doing, he believes that PjBL helps expose students to the holistic process of teaching and therefore enhance their conceptual knowledge in the first place. This is in part consistent with what Krajcik, Blumenfeld, Marx and Soloway (1994) term as one pronounced benefit of PjBL, in which learner grasp of subject knowledge was strengthened by linking theory with practice.

As with (Dewey & Dewey, 1915) that PjBL could boost learner development of both academic and transferable life skills, another perceived benefit of PjBL by Dave, in a more practical sense, lies in its enhancing student development of transferable skills. By saying so he mentions students serving as intern teachers in some local K-12 institutions, with the help of local, front-line teachers as mentors. This is at large seen

as as fruitful, while inevitably enlarging the gap between individual students. Firstly, Dave voiced worries about student inability to apply classroom knowledge to their internship experiences:

I would say that the majority of our students do not have the awareness of using what they have already been taught...they even seem to totally forget the disciplinary knowledge as they come into apprenticeship with their mentors.

Again, students are learning from imitating the practices of their mentors. This however causes challenges to some students since the teaching competence of their mentors vary at the local level:

Since we assign students totally randomly to schools in partnership with us, there would be inevitably disparities among the schools. Some students would be lucky to go to relatively high-ranking schools in cities, while some go to those located in the countryside with way less resources. Their mentors, likewise, would cling to some quite outmoded philosophies of teaching, and in this case the students cannot benefit much from their internship.

Thus, he hopes the use of PjBL could help enrich student fundamental knowledge of teaching in the first place, to combat such disparities to some extent. This would hopefully feed into student stronger adaptability in their future teaching career , as "*...while local K-12 schools would generally assign them to teach reading, and less likely writing, students should prepare themselves mainly for reading classes. By using PjBL, however, students would be exposed to all types of teaching, for better performance during the 'trail teaching' section within their job interviews.*"

In a similar vein, PjBL is considered to secure student performance in another 'trail teaching' section within the forthcoming national examination for K-12 English teacher qualification. By auditing some sections Dave concluded that "*Students are doing quite well in the four types of teaching, yet still need improvement in grammatical, phonetical and vocabulary teaching*", and that "*...the instructional aims and approaches would be adjusted accordingly.*"

As such, three aims of pre-service teacher education were stressed by Dave, namely for enhancing student conceptual knowledge, and competence in knowledge transfer for expected examination outcomes and employability. Noteworthily, such beliefs seem to align with the reported aims of PjBL in the literature as to promote learner knowledge acquisition and building of life-enhancing skills in a changing environment. e.g., Beckett, 1999; Barron & Darling-Hammond, 2008.

Secondly, when invited to share personal approaches to teaching, Dave's response showcased the use of behaviourist approaches, as mainly via demonstration, providence of examples and case studies progressively. The focus is for students to learn through imitation and strengthen the competence of knowledge transfer. He conveyed affirmative beliefs about the utility of such approaches in that "*...Students would be able to acquire new knowledge and concepts based on acquired knowledge.*" He then offered an example of such approach as requiring student attention to his classroom-based teaching, followed by student group-based, simulated teaching, and lastly his giving diagnostic feedback.

Deliberate endeavour was also made by Dave to interpret the concept of PjBL and the ways it could be enacted in practice. Firstly, Though discipline-dependent in nature, PjBL-based projects should feed into a final product (Barak & Dori, 2005; Craig & Marshall, 2019; Hasni et al, 2016; Prince & Felder, 2006). In contending the centrality of fulfilling the project, Dave understood the starting point of PjBL to be linked to the previously accomplished modules by students.

In other words, the 'project' as the central unit should build upon issues surfaced in student learning. Elaborating on this, Dave mentioned the initial step of PjBL to "*...identify the weak points in student learning outcomes of previous modules, namely the teaching of English listening, speaking, reading and writing*." the project would subsequently be targeting a given mode of teaching and, featuring an essential goal of 'problem-solving'.

Interestingly, Dave discredits the role of PjBL in fueling elements of authenticity to

teaching and learning:

I would say that PjBL could only help generate some simulated scenarios of teaching…that is, though PjBL students would gain a broad understanding of the overall process of teaching different classes, while the key lies in their competence in knowledge transfer to conduct effective teaching under real-world circumstances.

It seemed that Dave viewed PjBL as effective and practical approach for classroom teaching in regards of boosting student academic performance and employability, mainly through the lens of student acquisition of conceptual knowledge, or examination and job interview performances; authenticity is viewed not as a central tenet of PjBL, but a missing component to be later remedied by student self-directed learning. Concurrently, his emphasis on "*student imitation and practice"* reflected a behaviourist view that learning comprises habit formation. Such interpretation of PjBL by Dave in relation to his beliefs about teaching, as a result, is reflective of his epistemological conflict between adopting PjBL and the impacts of prior teaching experiences.

5.5.2.3 ***Features of the lecturer's professed beliefs concerning learning the major of pre-service teacher education***

Dave's beliefs regarding how to learn the subject, being also essentially complex, are indicative of his predilection for learning theories. On one hand, his frequent mentioning of enriching student conceptual knowledge in the first place suggests a behaviourist approach to learning.

Equally importantly, his belief about the process of promoting student practice in teaching suggests the influence of constructivist approach. Firstly, he referred to PjBL as a diagnostic process, building on issues from student previous learning by *"...considering what was missing from the modules they have completed, or the issues identifiable, like the difficulty levels of different types of teaching to students."*

Secondly, when describing the planned use of PjBL in exposing students to multiple

types and scenarios of teaching and the underpinning theories, by means of group work, the instructional aim is to *"...enable students to construct their personal theories of teaching."*

Therefore, Dave's professed beliefs about how to learn the subject showcase a mixture of impacts from behaviourist and social-constructivist views of learning. That said, learning was seen as a process of both knowledge accumulation and skill development, intriguingly a set of mutually exclusive beliefs. There was however a possibility that skill development was deemed subordinate to knowledge accumulation, an assumption to be further testified by exploring his teaching on the ground.

5.5.2.4 Features of the lecturer's professed belief concerning the roles of students

Closely linked to Dave's beliefs concerning subject learning are his beliefs about the roles of students in the learning process. Considering his professed preferences of teaching as based upon behaviourist and social-constructivist perspectives, it is pertinent to tap into his beliefs about students.

Firstly, such beliefs by Dave are equally complex. The instructional aims showcased his frequent hinting of students as both recipients of conceptual knowledge and social beings, in the position of "*observing and commenting on the teaching performance of their peers*" and have the potential to *"construct personal theories of teaching to benefit future careers."* Noticeably, the latter interpretation that learners are agentive individuals learning via interaction could be found in most of the episodes.

Secondly, Dave mentioned the profound impact of student characteristics on his pedagogical approaches. That said, concerning the location and ranking of the institution, the majority of students come from the lower and middle socio-economic backgrounds, with weaker foundation in the English language compared to their counterparts in higher-ranking institutions. This had posed challenges to effective instruction as "*sometimes time would be spent on explaining fundamentals of English than how to teach English",* thus causing considerable difficulty in PjBL

implementation in relation to time distribution.

5.5.2.5 Features of the lecturer's Professed Beliefs concerning the role of the lecturer

Dave referred to his role as both didactic and facilitative in student project work.

To begin with, he was an active observer to identify student needs as "*A lot of them actually do not have opportunities to practice teaching",* and had thus developed enthusiasm in PjBL as the module pedagogy. It is along such lines he planned how he could support students in proceeding with their project work.

Dave was keen to clarify the goals and requirements of the projects in the first place, by *"...offering pellucid rubrics, and exemplars of what I want",* and also "*...checking in student progress with their project, offer comments for enhancement in a timely manner."*

Yet, relating to PjBL implementation his accounts revealed an inclination to maintain control over student project selection, in the form of *"distributing certain teaching units from the textbook to student groups"* to ensure efficiency of the project work. It can be seen that the reported instructional method partially mirrors practitioner view of PjBL in the literature, as students access content largely prepared by the teacher (Mills & Treagust, 2003).

Also, drawing from Dave's intention to take such dual role, it was likely that Dave had partially embraced the facilitative role of teacher as he went about supporting students in moving forward with their projects. That said, he planned to facilitate student learning process with PjBL, while still regarding it necessary to closely monitor students in facing a myriad of contextual aspects, by clarifying goals and expectations, and providing timely guidance. Such facilitative role by teacher was portrayed essential in the PjBL-relevant scholarship (e.g., Greenier, 2020; Mao et al., 2023).

In the Chinese context, pedagogy seems to be subordinate to other disciplines or fields

of study (Zhou, 2021). Dave's interview accounts lent much evidence to such statement. Firstly, as with Jenny, Dave claimed that though the overriding concerns of faculty are on higher ranking, such target was understood to be achieved by gaining more resources, e.g. funding and partnership opportunities, and personnel. Devising better ways to teach remained more of a sporadic endeavour. He attributed such demotivation in pedagogy to the fact that *"... the majority of the faculty members have not received professional training in pedagogy in their previous education, so they just follow the 'PPP' model for adequate coverage of the instructional contents",* and more importantly "They *are not interested in learning and discussing pedagogies. There would occasionally be pedagogy workshops, yet would only be attended by me and another lecturer*." It can hence be inferred that Dave was relatively 'lonely' in his trail with PjBL and could know the essentials mainly via self-directed learning.

The above four thematic areas, taken together, are indicative of Dave's belief systems about teaching and learning the major of pre-service English teacher education. Delving into such beliefs, the importance of the role of his past teaching experiences, the role of learner competence and needs, and faculty concerns were discernable. That said, driven by the motive to narrow the disconnection between academic metrics and actual challenges from the job market, he took the autonomy in understanding and interpreting the suitability of PjBL. As a result, some of his professed beliefs regarding teaching and learning the major had changed according to given defining tenets of Project-based Learning, paralleling some findings in the literature (e.g., Branch, 2015; Oguz-Unver & Arabacioglu, 2014). Noteworthily, the interplay of such areas of beliefs fed into new structures of beliefs that navigated his interpretation of, and respond to, specific situations in classroom teaching.

5.5.3 Observations of the module featuring Project-Based Learning

This section turns to my weekly observation of the module, "English teaching

practices". so as to explore the complexity inherent to the lecturer's actual instructional practices, and the degrees to which they parallel the established principles of PjBL under natural teaching circumstances. Analysis of such observations draw from the working definition of PjBL developed in chapter 3:

1) Project should be prioritised as the centre of the module;
2) Students engage in constructive investigations, guided by open questions;
3) Student project work necessitates student utilisation of inquiry, knowledge building and resolution;
4) Student project work allows for substantial space for student autonomy, or a shift from teacher-centric to self-directed learning by students;
5) Project features realism, with a focus on authentic problems.

The study responds to gaps in the literature by focusing in the lecturers. Thus, during observations, the following data were noted for later interpretation:

1) The lecturers' accounts/instructional language at class, especially those in relation to the project (audio-recorded);
2) PjBL-relevant classroom activities (audio-recorded and included in observational notes);

PjBL-relevant teaching and learning materials used in class, e.g. the lecturer's PowerPoint slides, the textbook, or other printed materials (collected with the permission of the lecturers).

Such analysis of data allows for subsequent categorisation and coding of classroom events and the features of the events occurred. The findings add credence to the complexity within the instructional practices by the lecturer, and the existence of an eclectic approach, featuring both parts of PjBL and those of teacher-centred pedagogy. Such observed evidence of teaching eclectically necessitates comparing the lecturer's actual instructional practices with his instructional language to students, and professed beliefs in relation to PjBL as indicated in the interview.

Being essentially learner-centric, PjBL is values learner construction of new knowledge, namely "learning by doing". The findings showcase that there are some classroom activities and teaching practices reflecting constructs of Project-Based Learning in a general way.

However, as with Li (2010) that the local onto-epistemological aspects significantly influence the attempts of localising constructivism-based pedagogies in Chinese HE, a closer look reveals that PjBL was adapted by Dave based on beliefs and responses to classroom specifics. It is thus instructive to borrow from the working definition of PjBL while delving into the ways how particular practices with PjBL imply the complex interactions between beliefs and practices.

Dave stated in the interview his partially affirmative attitude of PjBL and subsequently a plan to enact PjBL as a module pedagogy. However, the weekly classroom observations fed into an overall understanding from my researcher perspective, that is, PjBL was not enacted wholesale but partially integrated into his teaching. During the interview, in contending his understanding of PjBL to be *"vague*", Dave also conveyed doubts regarding the utility of PjBL in constructing authentic scenarios and uncertainties of its effectiveness in promoting skill development of students. As a result, he used more generic terms to describe his teaching as *"...considering student learning and employment needs."*

Noticeably, observational data shows the complexity of his instructional practices, containing aspects both of PjBL and those of a teacher-led, behaviourist approach featuring teacher demonstration and student imitation, and a PPP approach extending progressively via presentation, practice and product, along with other traditional approaches comprising drills, practice and presentation.

5.5.3.1 Initiation of the project

The episode below from the first session of the module relates to the initiation of the project, the most central component in Project-based Learning. Dave began the session with a brief self-introduction and asked for student expected learning gains

from the module. He then specified the 'practice-oriented' nature of the module to the class, and introduced the project with the same justification as in the interview.

PowerPoint slides containing more project details were then provided by Dave. That is, the project, in line with the third aim of the module, is in the form of student group-based teaching of a given chapter from one selected K-12 English textbooks. The students are required to demonstrate their understanding, and quality interpretation and structuring of classroom activities relating to English writing, listening, reading and speaking, with concise instructional language.

Towards completion of the project, relevant activities to be done by the student project groups are included in the project schedule as below:

Deadlines	Project-relevant activities by student groups
The end of the 1st week	Develop and submit the group teaching plan
The 1stweek-the 5th week	Reflections and revisions of the teaching plan: ongoing discussion between identification of emerging issues,
The 5th week	Implementation of the group teaching plan

Table four: project activities by students-case study one

The whole class was then randomly divided by Dave into five project groups. The project, namely group teaching, constitutes part of the group portfolio which contains other details including:

1) Personal information: student educational/family background, past experiences of English learning, and reflections on philosophies of

English teaching they were exposed to;

2) A para of self-introduction as an indication of students' level of English proficiencies;
3) A notebook to record graphs, pictures that will be of potential usefulness in further teacher interviews.

It can be seen that the core of the PjBL approach, a project, was included in the module, taking the form of a teaching plan for simulated group-based teaching. Also clarified to students were the necessity and relevance of running such project given the module aims in (i) strengthening student competence in teaching different classes, (ii) to expose the students to collaborative/autonomous learning, (iii) to senticise students to better combining theories and practices in teaching, and (iv) to prepare students for a comprehensive set of teaching tasks/skills/certificates. Such highlighted points were in line with the suggested effectiveness of PjBL (e.g. Krishnan et al., 2011, p.74; Solomon, 2003). However, rather than being a central component of the module, namely "projects are the curriculum" (Thomas, 2000, p.3), here the project ran parallel with the module as the next session was concerned with regular teaching of blackboard techniques. Also, the distribution of prescribed project to student groups contradicted the student-driven tenet of PjBL.

Therefore, Dave seemed to move towards PjBL while retaining concerns for covering the instructional contents. Such practice was justified by Dave during the interview that PjBL posed challenges to "time management", and simultaneously *"...students are in constant need of monitoring, as they lack competence in English and independent learning."*

Such statement lent credence to the fact that Dave's experimentation with PjBL stemmed from the interaction between his beliefs about subject learning and teaching, the needs of students and his role in the PjBL process. That said, his emphasis on fulfilling instructional coverage, presumptions concerning the students' lack of English competence and self-discipline fed into his taking a dominant role in classroom teaching, as compatible with one module aim in preparing students for

examinations. Subsequently, Dave's practice features PjBL only partially.

5.5.3.2 Emphasis on covering prescribed contents

Firstly, observational data show that differing from one guiding tenet of PjBL as "the project being central, not peripheral to the curriculum" (Thomas, 2000, p. 3), in this case study the project was attempted more as complementary to the weekly lectures concerned with knowledge transmission, with behaviourist approaches of fostering student teaching competence via demonstration. For instance, in the week following project initiation, it was discovered that the instructional focus was on blackboard using. Instead of promoting student project-based group work, Dave retained control of the class by firstly doing a sample presentation of blackboard techniques, and nominated one student to use the blackboard to imitate the teaching procedures on page 15 of the textbook. This was followed by his asking the whole class to evaluate the imitation by pinpointing some existing questions, e.g. teacher position, the timing of using the blackboard, and gave immediate corrective feedback. Another student is then nominated to do the imitation again, focusing on the grammar "too…to". Dave then referred to the additional material to address the utilities and techniques of stick figures, guiding the whole class to explore into the material, underlining key words/sentences and asked the students to memorise the points accordingly. It was learnt that stick figure drawing was assigned for students as a weekly homework.

It can be seen that such instructional practice reflects Dave's clung to a teacher-centric approach explainable both at a cognitive and pragmatic level. On the one hand, as aforementioned in the interview, he suggested a linear perspective of knowledge acquisition and competence building; on the other hand, he was somehow forced to change back to a traditional instruction due to the constraints of limited in-class time, and hence a dilemma between coverage of prescribed contents and student project work. His accounts in the interview, that both his teaching competence with PjBL, and student competence in the subject discipline played a vital role in the extent to

which PjBL can be effectively implemented, could serve a further justification for his seemingly over-emphasis on lecturing. This is because for one thing, he conveyed a somehow alternate understanding of PjBL in the interview (see). For another, his instructional practice leaves the impression that he was constantly trying to translate PjBL theories into practice.

5.5.3.3 Lecturer-student Discussion of student projects: extra-curricular sessions

Dave's justification of running two extra sessions offered evidence that he adapted teaching according to the beliefs concerning student progress with projects, which was consistent with his professed beliefs concerning subject learning and the roles of students.

As captured by classroom observational notes, firstly, student unsupervised group work outside classroom caused a sense of uncertainty, as Dave voiced concerns with student preparation of their teaching plans on the 5th week that *"...I am unsure how far you have proceeded"*, *"I am certain that you must have encountered a lot of confusions with project work"*, and thus using two lunch breaks on the 7th week for checking in student process and giving instructions. There were then two extra-sessions focusing on student temporary project outcomes. Each session involved students sitting in their project groups facing Dave, with copies of their initial version of teaching plans. Each discussion lasted twelve to fifteen minutes. Dave invited each student to briefly talk about the sections of the teaching plan they were responsible for. During each student's response, he read through the teaching plans and took notes. He then gave detailed feedback. The following excerpt was one such example:

Dave turned to project group 2 (5 students in total), whose teaching plan was about teaching of reading. Following elaborations by each student relating to their project share, Dave offered instant, corrective feedback on the section of "Teaching objectives", that the current statement was too general and unrealistic. He then asked the whole group to brainstorm potentially viable ways of helping learner's recognition and application of new vocabulary. Upon noticing students' struggling to propose

alternate ways of vocabulary teaching, he elicited attention to the guidelines within the module textbook, by stating that *"You still seem to be not fully understanding the knowhow of vocabulary teaching, so always remember to refer to the textbook for relevant information*." he then transcended to the sections "leading-in, presentation and exercise" within the teaching plan, and discussed each with the students, with comments *"...this teaching objective needs to be clarified",* "the *material you provide for this section is a bit irrelevant",* and *"I suggest you to rethink the exercise-matching activities would be more fitting*." finally, he suggested the students to draw on both the existing materials and seek alternative, useful ones on the Internet, *as "...to become successful teachers, you must self-learn or search a lot of materials. Learning to teach is a life-long process."*

Dave then turned to group three whose teaching plan was about writing. After cursory reading of the drafted teaching plan, he remarked that *"Your selection of materials and preparation of the teaching plans are far from satisfactory." The three students then raised questions regarding how to identify and select suitable materials for teaching writing*, since "*There are very limited resources on the Internet, and we have also received little training on teaching writing*." Dave replied, "*Yes, and this is exactly why your teaching plan is so important."*

The next stage involved his asking the students the ways they work to devise the teaching plan. After the students' response that they worked separately before coming to the discussion session. Dave seemed a bit shocked and sa*id, "So from this you can see why your current teaching plan is of low quality, because you don't even collaborate in the first place."* He then commented such lack of collaboration as a sign of student "being lazy", before turning to the teaching plan and asking for students' temporal confusions. Again, he stressed the utility of the module textbook by eliciting student attention to given units. By the end of the first session, Dave said to the rest of the project groups that since the teaching plans of writing come as the most challenging yet least prepared, he would focus explicitly on this in the following minutes. The teaching plans of other sections will be discussed tomorrow. The other

group focusing on writing (6 students) then came to discuss with him.

At this time, Dave directed the group to analyse the text passage together, with each student sharing opinions and insights. Then, highlighting the process of teaching writing, he asked the group to refer to the module textbook. A student replied, *"However, I don't think the textbook provide guidelines for how to contextualise the writing tasks, which are however the most difficult*." Dave then replied, *"Yes, you have raised a very good question, and I hope you to discuss this afterwards within group."*

The next stage involved his giving more detailed instructions on the means of follow-up exercise while teaching writing from a diary as the text passage.

Such episodes, taken together, are reflective of the complex interplays between Dave's professed beliefs and practices in action.

From Dave's accounts, a belief in the linear process of subject learning, from gaining, internalising knowledge to informing practice, became discernible. It was then understandable his later actions in requiring the students to grasp the textbook contents for quality project completion. There was still some traction of student constructive investigation, though, mainly via group-based work beyond classroom settings and Dave's occasional facilitating of student group-based discussion during the discussion sessions. That said, while noticing confusions from the students in devising teaching plans during his checking the temporal project outcomes of the two groups on teaching writing, Dave either gave instant, corrective feedback, or asked for further group work showcasing elements of student self-directed learning and peer discussion. This, in effect, was compatible with his professed preferences of PjBL in *"...boosting more layers of interaction, both among students and between students and the teacher."* Meanwhile, equal weight was given to student-student and student-teacher interaction in consideration of student lack of competence in English and self-directed learning, which resonates with Dave's retaining control of the form and content of the project.

5.6 Conclusion

This chapter has presented findings from multiple data sources, to situate the lecturer's adaptation of PjBL within the institutional and departmental contexts in case study one. To specify, the lecturer's perceptions and practice of PjBL were precisely woven into the cultural script for teaching at the departmental levels, based on the analysis of the data from the module teaching plan, interviews and observations.

The findings suggest that PjBL was partially adopted in the actual ways of teaching, showcased by the general instructional principles and some of the classroom activities as professed and observed. It seems that the design of the project was predominantly concerned with student needs in academic learning and employability, with efforts in place by the lecturer to assist in student project work. The findings for the observational data, taken together, correspond well with the lecturer's professed beliefs, which could justify the lecturer's utilisation of an eclectic approach as observed. The findings imply that the lecturer had integrated certain PjBL-relevant aspects into classroom teaching, yet still clinging to traditional ways of teaching, e.g. demonstration, and requiring student imitation and memorisation.

Concomitantly, the use of the eclectic approach was also reflected in the setting, format and process of the project, as highly prescribed and monitored. By relating such practices back to the lecturer's accounts, a rationale can be identified concerning the lecturer's interpretation of PjBL, beliefs concerning how to teach, and the role of himself and students in the very process. Pragmatic constraints as perceived, e.g. student lack of self-discipline, insufficiency in English, and faculty demotivation in innovating pedagogy could account for the emergence of such eclectic approach. As a result, it can be inferred that the lecturer was both active in self-learning the guidelines of PjBL, yet had simultaneously developed awareness in tailoring PjBL to be fitting to his situated context, resulting in the application of an eclectic approach. Such approach showcases that being essentially a Western pedagogy, PjBL is both heralded for its pedagogical potential and subject to interpretation, adaptation, and

localisation in Chinese pre-service K-12 English teacher education. The complexities of PjBL enactment in case study one is visualised in the figure below. To illustrate, by connecting and comparing interview and observational data, what sits in the centre is the interplays between context and lecturer belief systems, which are further interrelated to the lecturers' enactment of PjBL on the left and an eclectic approach in use on the right. All such are situated within the context at the outset, namely the four scripts for teaching at the institutional and departmental level as identified (i.e., lecturer autonomy in devising teaching). Thus, the figure further showcases the situatedness of lecturer beliefs and instructional practices as they enact PjBL.

This chapter has presented the complexity inherent in enacting PjBL in pre-service K-12 English teacher education. The next chapter attends to PjBL enactment in English major education, as the other case study.

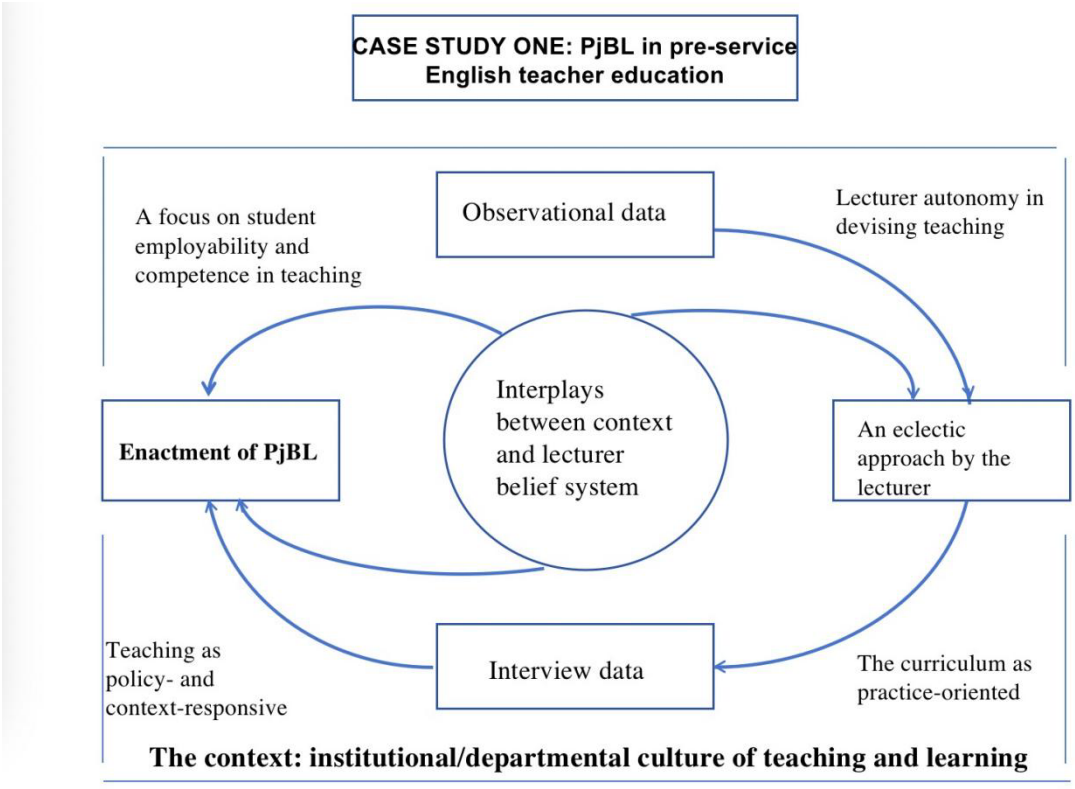

Figure one: visual for case study one

Chapter Six: Case study two: PjBL Adaptation in Chinese English Major Education

The previous chapter considered the adaptation of PjBL in case study one as a pre-service teacher college. This chapter attends to PjBL adaptation in institution B. It places the institution within its institutional type, namely a research-intensive university, to contextualise the use of pedagogy by its faculty and to further broaden the relevance of the study to HEIs alike.

Following the same structure as in chapter five, for a coherent narrative of the institutional and departmental contexts in institution B as the second case study, this chapter presents findings to the two RQs from multiple data sources. This is summarised as below:

Research questions	**Sources of data**
RQ1: How is western pedagogy adapted in Chinese HE, with PjBL as a case?	*(lecturer practices)* 3. Weekly observations of the module "English Lexicology" featuring PjBL 4. The teaching plan of the module "English Lexicology"
RQ2: How do systems of lecturer beliefs and practices interact to shape such adaptations?	*(lecturer beliefs)* 2. Interview with the lecturer (pseudonymised as Grace) implementing PjBL. *(the institutional/departmental cultural scripts for teaching)* 6 Information contained in the institutional/departmental homepages; 7 Observations of other two sessions

	within the department; 8 Interview with the departmental dean (pseudonymised as Amber); 9 Interview with the other lecturer (psedonymised as Stella); 10 Interview with the lecturer (pseudonymised as Grace) implementing PjBL.

Table five: research questions and sources of data-case study two

6.1 Characteristics of Institution B and its English department as the sites for data collection: information from the institutional official webpage

6.1.1 General information of the institution: information from the institutional webpage

Founded in the 1890s, institution B is a comprehensive, research-intensive university located in a provincial capital city in southwestern China, in affiliation with China's Ministry of Education. Ranking among the top-fifteen comprehensive universities nationwide. It is also part of Project 211, Project 985, and the Double First-Class Construction in Chinese HE.

Institution B now holds multiple colleges or schools in various disciplines, e.g., Physical Science and Technology, Arts, Foreign Languages and Cultures, Mathematics, Chemical Engineering, Software Engineering.

6.1.1.1 The English Department

As with case study one, information on the English department promotes identification of the cultural scripts for teaching. This department was selected for data collection as it holds the module featuring PjBL.

English is one of the earliest undergraduate programmes of institution B. Over the 120-year development of such programme, many renowned scholars have taught or

studied here, establishing an academic tradition and solid foundation for its sustainable development.

More than four decades ago, the English Language and Literature major was identified by the State Council as one of the first strand of master's degree programmes across the country. At the turn of the 21st century, English Language and Literature was approved as the first doctoral degree authorisation point, and later a first-level discipline doctoral degree authorisation point. Concurrently, the English major is for both arts and science students. On the basis of achieving satisfactory English language competence, students can further select from English literature, English culture, English linguistics, and translation as their major. The department also offers a second degree module in English for other majors at the institution. After a long period of development, The department of English now holds 40 teachers, including 23 professors and associate professors, and 8 doctoral supervisors. All teachers have either completed, or are undertaking overseas study.

As for teaching, the department emphasises the language competence of undergraduates, starting from multiple fundamental aspects such as listening, speaking, reading, writing and translation in English; equally notably, the department focuses on the cultivation of student humanistic qualities, offering modules covering the literature, culture and country studies of English-speaking countries, with advocation of innovative, classroom-based teaching. Rigorous planning and construction of core modules, e.g. Comprehensive English, English Phonetics, listening, conversation, grammar, writing, translation, interpretation, introduction to foreign languages, British literature, American literature, British and American society and culture, and Lexicology, constitute another priority, with some modules gaining recognition at the national or provincial level.

Aside from teaching, the department gives equal weight to staff research outputs. While completing instructional tasks, staff has published several quality academic monographs, papers, and won several provincial and ministerial awards for social science research. Concomitantly, the department is actively involved in publishing

and editing recognised academic journals.

Concomitantly, in line with the school, the department attaches great importance to enriching students' literary and cultural knowledge, as well as cultivation of comprehensive competence, e.g. encouraging students to partake in overseas exchange programmes with elite universities in the U.S. and the U.K.

The department is also keen to invite famous scholars and professors from home and abroad to visit the school, and deliver public lectures. Since 2012, the International Exchange Week has been in place, promoting such lectures and international undergraduate summer camps. Moreover, renowned professors and doctoral supervisors from top universities in China, e.g. Peking University, Tsinghua University, are invited to offer off-campus themed modules to undergraduates on an annual basis.

The guiding instructional aims/objectives of the department can be summaried as below:

6.1.1.2 Overall instructional philosophy

Under the guiding spirit of institution B of "elite education, quality-oriented integration of science and education, and interdisciplinary", the English major practices the educational philosophy of "people-centred, academic-focused, and excellence-oriented". Students are offered access to learn the fundamentals of the English language, literature and culture, prior to more advanced application/research of such aspects. Students will be able to apply English to diverse fields, e.g. science, education, diplomacy, language, literature, culture etc., to engage in research, translation, teaching, foreign affairs, management and other work. That said, the guiding spirit is in promoting both student proficiency in English as the target language, and comprehensive competence, e.g., critical thinking, collaboration and innovation. In light of such instructional philosophy, the instructional aims and objectives are set accordingly, in the form of 'desired student qualities" dividable into the categories below:

1) Comprehensive competence

Students should be capable of independent thinking, develop good comprehensive quality, team spirit, social responsibility, professional ethics, and be open-minded.

2) Academic competence

Students should develop professional knowledge in English language, literature and culture, and could skillfully apply the above knowledge to multiple ends, e.g., study, life, work and scientific research, especially possess adequate competence in English speaking and writing.

Students should master knowledge and theories fundamental to the field of humanities and social sciences, so as to conduct quality academic research in the fields of English language, literature, culture, translation, teaching, regional and country studies etc., and be able to search for, understand, translate, sort and analyse relevant literature, write academic papers, and partake in academic conferences or exchange events.

Students should master at least one foreign language other than English, and the fundamentals of computer and network technology, for effective data processing and document analysis.

Students should understand discipline-relevant policies at national and international levels, and also domestic trends and frontiers of the disciplinary development, develop personal adaptability and competence in life-long learning.

The main job orientations of undergraduates, as specified on the institutional homepage, including cultural exchange, translation, external publicity,

1) Cultural exchange, translation, external publicity, administration etc. in foreign affairs agencies and foreign-related departments of party and government agencies;

2) Teaching, scientific research, administration, external publicity etc. in schools and scientific research institutions;

3) Administrative and business work in foreign trade departments and foreign-related

enterprises;

4) Editing, reporting etc. in news and publishing units.

6.2 Teaching and learning within the department as indicated by the dean

As with case study one, a broad understanding of the departmental-level teaching and learning, from the lens of cultural scripts for teaching, will be firstly included in this section. To be more specific, interview with the dean (pesudomymised as Amber) was conducted prior to my weekly classroom observations, with similar indicative questions. Amber's accounts were then processed via thematic analysis in relation to the research questions. Transcription for this interview is included in appendix four.

6.2.1 Main priorities of the department as indicated by the dean

Amber stressed that, the school is now working to revise the overall teaching plan of its undergraduate education, in light of the teaching guide for English majors formulated by the Ministry of Education, and other guidelines for curriculum setting. This guide builds upon the experiences and suggestions by domestic experts in tertiary English education, thus providing references to all domestic comprehensive universities offering English major education.

On this basis, such universities, including institution B, would further combine the characteristics of the institution and the faculty to set a fitting syllabus. In other words, while drawing from the reference provided by the experts as an overall guide, institutional teaching plans and standards are further revised based on institutional characteristics. In addition, currently the revision of the undergraduate teaching plan involves the arrangement or re-structuring of undergraduate modules, as well as the teaching hours for module and possible cancellation of specific modules.

Equal importance is attached to motivating its top students to further their studies. In recent years, some of the top students have been able to go to the most elite Chinese universities, e.g. Peking University, Nanking University and Fudan University for postgraduate studies. The school would strengthen the training of top students, so that

chances are higher they could go to elite universities, both domestically and internationally, for postgraduate study.

In the meantime, the school is dedicated to promoting reforms in teaching and learning, e.g. reforming its entrance examination for postgraduate study, so that more of its undergraduates meeting the entry standards would be able to further study at the school.

Relating to the long-standing multi-directional training model followed by the school, on the basis of the existing programmes for undergraduates, e.g., Literature, Linguistics and Translation, dual degree opportunities are made available to most students, e.g. "English plus Nursing" programme and "English plus Law" programme, as more diverse, interdisciplinary pathways to benefit students who do not intend to further study or plan to find employment upon graduation. In other words, such dual degrees involve more practice-focused and career-oriented training.

6.2.2 Characteristics of the department as indicated by the dean

Like in case study one, here the first interview question was raised to tap the features of institution B, as the context surrounding PjBL adaptation by one of its lecturers. According to Amber, by virtue of its historical foundation, fitting personnel in faculty and scale, the school now offers a curriculum more inclusive than that of other comprehensive universities, with balanced development of programmes including English literature, Linguistics and Translation.

According to Amber, as for talent training, an 'elite training model' has been established by its former dean in the form of innovation classes, and the model will continue to be deepened in the future. The 'innovation classes; according to Amber, more specifically comprises the top students from each class, aiming to "*Enhance their academic performance, so that they can be an inspiration to their peers"*.

As mentioned earlier on, complementary to the above elite training model is the multidisciplinary education that the school is also practising, for multi-directional

student training. That said, on the basis of the existing English language and literature major, students can further choose the specialisations they take interest in, from linguistics, literature, and translation, and as such to learn more efficiently and better secure employment after graduation. Due to the large number of students, in addition to a few top students, the college priotises the employment of the vast majority of students after graduation, and will continue to adopt an undergraduate training model which combines elite and multi-directional training. The college is also keen to develop its dual programme model of English plus other disciplines in the future.

6.2.3 Instructional focuses of the department as outlined by the dean

Given the aforementioned training direction of the college, its instructional focuses are set accordingly. That is, to provide elite education for top students while offering the rest majority ample opportunity for enhancing academic acumen and job-readiness, teaching of the English major should raise beyond the narrow end of promoting learner acquisition of English as merely a foreign language. Thus, instructional emphasis is placed on promoting student competence in English as the target language, and simultaneously, accumulation of knowledge in given professional fields such as English literature, linguistics or translation, and development of transferable skills to meet workplace challenges. For example, an ideal scenario as shared by Amber is that:

"…under classroom settings, students should actively engage in reading academic papers relating to the discipline, both intensively and extensively, thus making the acquisition of a foreign language and enrichment of knowledge an organic whole. In other words, the two aspects should be made mutually complementary."

Equally interesting to note here is the negotiation of how to teach within the module unit. Each compulsory module is equipped with a module group responsible for conducting and revising teaching. At the same time, for compulsory modules with a large proportion of class hours and credits, the module groups will be restructured according to the students grades. For example, for the module *comprehensive English*,

there will be module group for the first year, and another corresponding module group for the third and fourth years. This also applies to the modules *British literature* and *American literature*. At the same time, for some elective modules like *European culture*, there is only one teacher, and hence will be no module group. The dynamics of each module group is also contingent on the nature of different modules. That is, some module groups, like comprehensive English, are relatively strict, and teachers in the group will hold regular meetings to discuss issues like examination scope or assessment. But within other module groups, such as English writing, the atmosphere will be relatively relaxed, and each teacher will have more autonomy or flexibility in teaching.

6.2.4 Instructional preferences of the department as outlined by the dean

Again, like that in case study one, there was no such thing as a normative way of teaching among the faculty according to Amber. This was seen as a positive reflection of lecturers' autonomy in planning and enacting teaching given different module specifics. Nonetheless, despite teaching as predominantly individual-specific, Amber pointed to a shared instructional preference as in highlighting student classroom participation, especially embodied in the assessment section of module teaching plans.

Discussions of how to teach, as a result, were generally conducted within module groups, and however remained a sporadic occurrence between lecturers with shared educational philosophy or instructional preferences. Amber hence stressed the departmental intention to stimulate more such discussions for diversifying and updating teaching.

6.3 Challenges facing the department as outlined by the dean

The interview with Amber also tapped on the challenges facing the department, which can be categorised as below.

6.3.1 Non-teaching aspects relating to academic developmental needs: producing

and disseminating research

Amber shared the two most pronounced challenges after she joined the faculty. On the one hand, in recent years the faculty has had a stable personnel intake of some newly graduated doctors or full-time postdocs, most of whom have experienced holistic training programmes from undergraduates to doctors and have infused many novel educational ideas or philosophies into the faculty. However, like in case study one, these teachers are under great pressure in scientific research, thus having only limited time allocated to teach or devise teaching. Subsequently, the school needs to consider how to renavigate faculty attention onto teaching as another crucial component of the their academic career.

6.3.2 Teaching aspects relating to student training: the elite model

Another challenge, according to Amber, lies in how effectively implement the elite training model of innovative classes, so that the top students can serve as motivations for the rest. To achieve this, informed attempts should be in place to restructure teaching personnel, adapting curricula and relevant teaching and learning materials, and naturally updating facilities.

6.4 Ways of teaching at the department as indicated by the other lecturer

This section reports findings from an interview with the other full-time lecturer (pseudonymised as Stella) within the same department with the lecturer conducting PjBL, with generally the same interview questions and treatment of data in case study one. Questions were raised in regards to:

3) Teaching at the departmental-level, as shaped by characteristics of the institution and its instructional highlights;
4) The ways departmental-level teaching was planned, negotiated, and enacted;
5) Adaptations in teaching in response to perceived challenges; and
6) Personal concerns.

Transcription for this interview is included in appendix five.

6.4.1 Teaching within the department

Stella firstly pinpointed to the ways of designing teaching within the department, which fall into three categorisation and are illustrated below:

1) The existence and function of 'teaching and researching group' for given modules, and the dynamics within such group;
2) Generally preferred ways of teaching among the faculty, and;
3) Teaching as a flexible, context-sensitive action within the department.

6.4.1.1 The existence and function of 'teaching and researching group' for given modules

When asked about ways of designing and conducting teaching, Stella recalled that *"...here at the department we do have such units called 'teaching and researching groups' for some modules."* In raising an example of six lecturers forming such group for one module, also mentioned were the group dynamics:

We have a themed WeChat group for sharing class materials and discussing other crucial issues, like module planning and examination arranging.

This however did not apply to other modules taught by one lecturer only, e.g. the module 'English Lexicology', under analytic focus of this study. Such phenomenon was further attributed by Stella to module specifics. That said, as there would be several lecturers co-teaching core modules covered by the first two years of the undergraduate programme, e.g. 'Comprehensive English', a 'teaching and researching group' would naturally be in place. By contrast, then, the selective modules for junior and senior years would often be taught by individual lecturers, leading to the absence of such groups. In short, the setting of 'teaching and researching group' was in line with the curriculum at different years of study.

In stressing her experience of being on the same 'teaching and researching group'

with Grace, Stella's accounts uncovered some in-group dynamics. Firstly, there would be teach-relevant, in-group discussions:

We would discuss firstly the teaching syllabus, aims and objectives, upon given the module teaching tasks. We then work on module descriptions detailing the recommended textbooks, in reference to our respective professional backgrounds, and then select one textbook.

The following steps involved distribution of instructional tasks based on the module timetable and lecturer's respective fields of teaching, prior to preparing and gathering PowerPoint slides for in-class teaching. Interestingly, recognising enhancement in teaching as *"a longitudinal, painstaking process"*, Stella also pinpointed to the responsive nature of such group work, like sharing recognised issues and student feedback on a frequent basis, for better instructional outcomes.

6.4.1.2 Generally preferred ways of instruction by the faculty

Closely linked to the discussion within 'teaching and researching' groups was the shared concerns by the faculty. Stella revealed that, *"...the overriding emphasis is on completion of instructional aims and objectives, navigated by the instructional content"*.

As a result, like in case study one, on the precondition of fulfilling instructional coverages, lecturers were granted autonomy in selecting materials and pedagogies they saw appropriate. However, a generally preferred method of instruction was perceived by Stella as the encouraging peer discussion among students. Justifications were given in relation to her own teaching as well. That said, she was keen to invest more in-class time into student peer discussion than imparting basic concepts alone, since *"...Now the students are basically quite capable of academic research, as they know how to search for and obtain relevant resources online. Just imparting book-based knowledge or information accessible online would no longer satisfy their need for new knowledge, so the key should be guide them to discuss and dig deeper into the essentials."*

Another stimulus aside from peer discussion was described as inviting students to share tips they find conducive to disciplinary learning, together with reflection by the whole class. Stella saw this as *"...a deliberate change in teaching, especially for skill-oriented modules."*

6.4.1.3 Teaching as a flexible, context-sensitive action

In addition to what has been noted above, Stella's accounts add more credence to the departmental-level teaching as a flexible action, susceptible to an array of context aspects.

Firstly, this was again embodied in the ample space for lecturer agency and autonomy in designing teaching. In saying so Stella stressed that, *"...it does matter that much how to teach...the pivotal concern is always how I could secure student learning outcomes at a higher level, like critical thinking."* The national syllabus for English major education, in effect, does not prescribe any given pedagogy or means of instruction, therefore granting the lectures much space in teaching. Stella stated that since the syllabus contains vague information by only specifying expected instructional outcomes like "*...student should possess cross-cultural competence by the end of the module."* the practitioners were then free to opt for ways of instruction.

6.5 Classroom observations of other two modules within the department

This section attends to findings from an analysis of classroom observations between March and April 2022, with the same intent, arrangement and treatment of data as in case study one. The two sessions were selected for observation since they were conducted at the same department with the module featuring PjBL.Data in this section intends to enrich understandings of teaching at the department from the lens of cultural scripts for teaching, hence responding to RQ2 by providing a departmental context of teaching. The two sessions reveal lecturer-centric approach as a pervasive

at the departmental level.

6.5.1 Classroom observations: overview

6.5.1.1 Classroom layout

This section describes the classroom settings of the two observational sessions. All such observations here at case study two took place in the Main teaching Building, again with the same layouts and equipment of classrooms. In pairs, the students sat at tables perpendicular to the platform at the middle front of the classroom.

6.5.1.2 One session from the module "Comprehensive English"

1) Description

The observation of this session took place on 12th April 2022 in the Main Building. There was a around 30-70 ratio of male and female students from the programme of English. Building on the insights gained from case study one and my personal experience, I brought to the observation a pre-assumption that the class would highly likely to be delivered via teacher-fronted, didactic instruction.

The session can be broken down into a series of activities.

The first activity comprised three students coming to the platform to do a presentation on an individual basis, with each presentation lasting for about seven minutes. The first presentation centred on appreciation of a short story, with emphasis on its main characters, theme and plot. The second was about a quick view of 'zombie nouns', including its definition, usage with a set of examples. The last presentation briefly discussed anxiety as one psychological phenomenon, against the backdrop of the pandemic-vicarious trauma, together with some potential coping strategies. The lecturer then offered some general comments on the contents and structure of such presentations.

The following activity related to appreciation of one passage from the module textbook. In initiating a close reading of the second paragraph, the lecturer elicited

student attention to the last two sentences, before nominating one student to read aloud the concept of ‘social Darwinism’ in the textbook to the whole class. She then guided the class to dig into the vocabulary of ‘Darwinism’ by discussing the use of the suffix ‘-ism’ in forming new words. Next, the lecturer raised content questions relating to the passage, like “tiger and lion, which would be the king of beasts?”, followed by several comprehension check questions on the text content.

The lecturer carried on choosing another student at random to read the next paragraph. Following that, she displayed some pictures on the PowerPoint slides to highlight the symbolic meaning of ‘rose’ in American literature. Then, she gave an explicit written explanation of the concept ‘Social Darwinism’ and asked students to relate such concept to their life experiences. A student raised the phenomenon of the job market.

The next activity, likewise, involved the lecturer nominating one student to read another paragraph prior to comprehension questions to the whole class. The word ‘abnormal’ was then shown on the slides for illustrating the use of prefix ‘-ab’ and a list of such words.

Ascending to the following paragraphs, the lecturer turned to different types of clauses, asking for student identification of subject clause, attributive clause and adverbial clause within the text passage. This time the whole class replied to each question, followed by the lecturer’s giving correct answers on the PowerPoint slides, in different colours. The lecturer ended the session by reiterating such grammatical knowledge.

2) Interpretation

As the session was primarily concerned with analysis and appreciation of one text passage, it may be argued that the lecturer’s use of a didactic approach was intended to enrich student grasp of the content, and grammatical points within the text. Though students did presentations at the beginning of the session, field notes indicate the vacancy of student peer interaction; that said, even the presentation section only contained teacher-student interaction. It may be inferred that for Comprehensive

English stands for one core, fundamental module, the instructional task of covering prescribed contents might be overwhelming. Indeed, such notion was further reflected throughout the rest of the session when the lecturer attended progressively to text passage, clarifying grammatical points and building student vocabulary based on given words. Another observation made in the activity of text appreciation is that the students' competence in English seemed rather satisfactory, as being able to respond to comprehension questions.

Concomitantly, in addition to aiding in student grasp of the text passage and vocabulary, the lecturer occasionally fuelled a sense of authenticity to the class by promoting student linking such textbook-based knowledge to real-life scenarios, as is the case with the embodiment of 'Social Darwinism' within the current job market.

A final descriptive reflection of such observation is that while the whole session lasts for 90 minutes, there seemed to be a sense on the lecturer's side to rush to cover adequate content of the passage, creating a sense of prioritising time-efficacy of the class. It could be deduced from such hustle pace that the instructional tasks could be rebalanced to allow for more diversified modes of classroom activities and interactions.

6.5.1.3 One session from the module "English Listening"

1) Description

The observation of this session took place on 14th April, 2022 in one of the computer classrooms in institution B. there was roughly a 20-80 ratio of male and female freshmen students from the programme of English. The instructional language in use was a mix of English for illustrating instructional highlights and Chinese for aiding in student comprehension.

After logging into the computer and putting on headphones, students involved in the first activity, doing one listening exercise from the module textbook. The lecturer then displayed the audio of some key words and asked student to read along, followed by

her pausing to stress the pronunciation and Chinese meaning of given words. Students carried on focusing on a listening passage from the textbook, followed by completing cloze questions at part A. Again, the lecturer replayed the audio and paused halfway to illustrate the genre of the passage, together with the strategies of completing the following-up exercises, like 'predicting the part of speech' and 'mindful listening.'

What followed was the lecturer's answer-checking of the seven questions, one by one with the whole class. 'What, when, why, how' questions were then raised by the lecturer to the class, prior to providing standard answers. The lecturer also attended to the meanings of some in-text vocabularies and expressions. She drew from personal experience to illustrate the word 'chancellor' by relating it to the topic of 'identifying personal career path' where a number of chancellor services are made available. The lecturer moved on to display some new vocabularies on the computer screen.

In the third activity the lecturer replayed the audio, and navigated student attention to exercise two. Again, she paused halfway to assist in student completion of exercise questions, together with highlighting of some words and expressions. In stressing the meaning of the word 'haphazard', she asked about student ideas on the possible conflicts between personal interests and accessible career paths. The lecturer then moved to part four of the exercise with the same treatment of another audio, and demonstration of new vocabulary and expressions by putting them into real-world settings.

In the subsequent activity, the lecturer replayed the audio and required student closer attention to specific bits of information. This time, the differences between intensive and extensive listening were emphasised by the lecturer.

The lecturer proceeded to ask the class to take out a piece of paper for noting down key words and ideas from another audio. The students were then guided to conduct discussion with their desk-mates, on the main ideas of the passage. The lecturer nominated two students to share their ideas with the class and gave comments. Next, she checked answers with the whole class, underlining structure and key words of the

passage, hand in hand with instructions on the techniques for notetaking and listening comprehension.

At the end of the session, the class focused on close reading of the transcript of the passage. The lecturer replayed the audio, pausing occasionally to stress some new vocabularies, expressions and concepts. She ended the session by assigning homework and mentioned student presentation for the next class.

2) Interpretation

The observational session confirmed previous literature on the prevalence of Confucian model (e.g., Liang et al., 2020) that features teacher-centredness (Wu, 2020) in teaching and learning in Chinese HE. observational notes specify that the class was overall teacher-led with a series of activities on listening comprehension and learning of grammatical points, e.g. new vocabulary and expressions. Field notes indicate that despite the dominant instructional focus on imparting of prescribed knowledge via fixed exercises in the textbook, efforts were also made by the lecturer to infuse real-world relevance into such didactic teaching.

Another set of field notes indicates that alongside completing listening activities and exercises inspired by the module textbook, students simultaneously engaged in a quick peer discussion with their desk-mates on an open question concerning text appreciation and were informed about the upcoming task of presentation. It may be inferred from such arrangement that though being largely teacher-centric, it is possible that more diversified means of instruction would be utilised for the next session.

6.5.2 A comparison of the department-level cultural scripts for teaching in the two case studies

As with section 5.4.1 in case study one, this section is intended to offer a contextual profile of institution B and its department of foreign languages, drawing from the same databases. This section 6.4 has depicted two classroom observations at the

second case study in April, 2022. As in case study one, such observations were conducted with a view to tapping the particulars of teaching at the local, departmental level and could hence be considered reflective of findings emerged in chapter 6 and add credence to the overall discussion in chapter 7. Concomitantly, at the micro level, such observations might aid in capturing of the cultural script for teaching as normally tacit and shared among the faculty members. This section now draws from different data sources to engage in an analysis of department-level cultural scripts for teaching at institution B, prior to a comparison of such scripts between the two case studies, by referring back to Chapter 3. In so doing, dominant cultural scripts for teaching in China serve as generic lens to further unpick the department-level cultural scripts for teaching at the departmental level.

There are four notable scripts for teaching shown in the context of institution B and its department of foreign languages.

Different from Institution A's instructional emphases on boosting student employability, here at Institution B, as a comprehensive, research-intensive University, such emphases were given to cultivating student comprehensive competence, with developments in disciplinary knowledge and a set of transferable skills which could benefit, to illustrate, student need to further study and seek employability in related fields. This was narrated by both the dean (see section 6.2.1) and the other lecturer (see section 6.4.1). A 'elite-training' mode was then in place to strengthen the affordances of quality instruction and developmental resources for top students. Aside from training top-students, the elite mode, according to the dean (see section 6.2.1), was also attempted to promote the overall profile of the department. This was reflected in the ways recognisable competition awards and research output by top students could add to the ranking of the department, and as such to attract more elite staff personnel and subsequently, to solicit more funding. Therefore, the elite mode (see section 6.3.2) seemed to present the most dominant cultural script for teaching at Institution B, which was in contrast to that of institution A where the overall employability rate of its graduates was prioritised.

Intimately linked to the elite mode were other scripts for teaching, which was firstly capturable from flexible means of instruction by individual lecturers, as narrated by both the dean (see section 6.2.4) and the other lecturer on the same module group (see section 6.4.1). That said, like in case study one, lecturers were granted substantial autonomy in selecting and enacting instructional methods as they see fit, which suggested space for pedagogic innovation like trailing out PjBL. The 'teaching and researching group' for each module (see section 6.4.1.1) allowed for exploration of alternate pedagogies by combining the repertoires of group members. Still, ample coverage of prescribed content was prioritised, to which the module teaching plan served a useful reference.

Inclusion of student discussion at class was understood to be a prevalent instruction method among faculty members, as stated by both the dean (see section 6.2.4) and the other lecturer (see section 6.4.1.2). This was however in contradiction with the subsequent observational sessions, which showcased the prevalence of lecturer-fronted, didactic instruction as the third cultural script for teaching that emerged. The two observations point to the existence of a pervasive pedagogy in the form of lecturer-centredness, mainly concerned with student accumulation and consolidation of grammatical knowledge of English based on standard answers from follow-up exercises in the textbook, which seemed to play a key role in navigating classroom activities.

Thus, both students and lecturers seemed to be accustomed to a routine in a repetitive cycle of IRF which underlined a range of short tasks for vocabulary learning. That said, both lecturers seemed to navigate classroom activities using the initiation-response-feedback cycle. Content and conceptual knowledge from textbooks were highlighted, as students engaged in activities like vocabulary learning and text comprehension. Student respect for lecturer and discipline in classroom were pronounced, embodied in both observations where students sat in pairs facing the lecturer, and partook in activities guided by the lecturer. There was an obvious atmosphere of attentive learning as students gave the impression of following lecturer

instruction with a high degree of respect, only speaking up when instructed to do so. Concurrently, the lecturer appeared to facilitate student engagement and activities by nominating students and using succinct, polite instructional language, thus building a harmonious classroom environment. Such mismatch between stated ways and realities of teaching, interestingly, could link to the fourth cultural scripts for teaching inferred from interviews (see section 6.4.1.3).

In line with what Yu and Wang (2009, p.32) stressed, that pedagogical practices in China feature "learning to use" rather than "learning by using", another convergence between the two case studies relates to the fourth cultural script for teaching, namely the importance of practice in both classes, as student grasp of knowledge was checked and consolidated via the IRF cycle. To illustrate, subsequent to demonstration of new vocabulary and expressions, the lecturers frequently resorted to the use of comprehension question and paid close attention to exercises in the textbook, for illustrating the basic word meanings and part of speech. This was sometimes followed by the lecturers' fueling authenticity to the learning process, e.g., referring the vocabulary to authentic situations, or assigning homework containing usage of the target vocabulary/expressions. Therefore, the progression of activities implied an emphasis on promoting student repetitive exposure to new knowledge via classroom-based and after-class practices.

In addition to the three dominant cultural scripts for teaching in China, some local-specific scripts for teaching can also be uncovered. Firstly, there seemed an inclination from the lecturers to boost student engagement by introducing student presentation and peer discussion. What seems to have transpired in such observation is that such script is fitting to student role as mainly knowledge recipients while creating some chance for their knowledge construction via partaking in unstructured activities.

It could then be supposed from such observations that given the prevalence of lecturer-centric instruction, the main script for teaching at the departmental-level is concerned with student acquisition of book-based knowledge. Indeed, field notes

show the lecturers' use of IRF was a frequent occurrence, probably explicable by the pressure of covering instructional tasks within limited in-class time. However, there also appeared to be some space for the use of constructivist pedagogy, given student seemingly ample competence in English.

Taken together, there exist both similarities and differences between the department-level cultural scripts for teaching in the two case studies, with the most prominent difference reflected in the dominant script for teaching in relation to the type of the institution, namely the prioritization of enhancing student employability and elite training for top students. Classroom observations in both case studies point to the reflection of three dominant cultural scripts for teaching in China as discussed in chapter 3. Such dominant scripts can be narrowed down to more specific, shared scripts in both case studies as:

1) Lecturer autonomy in designing teaching;
2) Teaching as context-specific and -responsive.

From a report of findings from an analysis of two classroom observations, I move on to describe lecturer adaptation of PjBL through analysis of findings from interview and classroom observations, before elucidating the ways such script for teaching were embedded in the lecturer's adaptation of PjBL as a Western pedagogy in Chinese HE.

6.6 Lecturer adaptation of project-based learning: the module "English lexicology"

This section centres on findings from PjBL adaptation in case study two, building upon data from an 18-week module, "English lexicology', selectable to junior students from the undergraduate programme of English literature. The module stands for another central strand of research data for this study and was included for its inclusion of PjBL. Instructional approaches used by the lecturer, including project work, project-relevant discussion, lectures, the use of AntConc as a tool for lexical research, and demonstration of knowledge from given units in the module textbook.

As with case study one, this section is divided into 3 sub-sections:

Section 6.6.1 introduces the module, in the form of direct quotations from the module teaching plan.

Section 6.6.2 draws from the interview accounts of PjBL by Grace, in relation to the aspects of her belief systems.

Section 6.6.3 focuses on my non-participatory, in-site observations of the module featuring PjBL.

The study is interested in the ways systems of lecturer beliefs and practice interact to shape their adaptation of PjBL. Building upon Buehl and Beck (2015) that within the belief systems, some are explicitly used to frame particular tasks, e.g., the lesson planning, this section intends to provide information from the module teaching plan. The following section presents data from the module teaching plan, compiled by the lecturer responsible for teaching the module. The lecturer has been named Grace.

6.6.1 Specifics of the module: information from the module teaching plan

6.6.1.1 Basic information

As shown by the module teaching plan, English lexicology is an optional module for junior students from the programme of English Language and Literature. The module takes up 32 instructional hours in total, with instructional emphasis covering:

the fundamental knowledge of words and vocabulary;

the origin and development of English vocabulary;

the morphological structure of words;

the way words are formed;

the rationale of words;

the meaning and semantic relations of words;

the changes of word meanings;

the lexical features of British English and American English;

English idioms;

the study of foreign language vocabulary acquisition, and;

the application of corpora in lexical research.

6.6.1.2 Teaching aims and objectives

The module teaching plan contains information on the instructional aims and objectives of the module. That said, to contribute to student comprehensive understanding of the theoretical l knowledge of English lexicology, and the acumen in vocabulary usage. Moreover, via the introduction of relevant research fields and tools (mainly corpus tools), students will be guided to conduct lexical research relating to acquisition of English vocabulary, thus better internalising module knowledge by combining it with the specifics of academic inquiry.

6.6.1.3 suggested means of instruction

The teaching plan also suggests diversified modes of instruction for the module delivery. Firstly, the module would be mainly delivered via weekly lectures, for coverage of disciplinary knowledge. Also, before each lecture, students are required to read through the relevant chapter in the textbook on their own and write a summary of the chapter content, and include questions or confusions when necessary. The summaries would then be reviewed by Grace, with comments and answers provided.

The first assessment mode relates to student group presentations in class. That said, students can select from the range of topics on lexicology (e.g., new words in English, English words derived from the Bible) and form groups on a voluntary basis. Each student group would then prepare a topic and give a 15-minute report in class.

Students experiment with lexical research, which pinpoints to the PjBL component of the module. That is, the lecturer would firstly familarise students with the use of

corpus tools, before guiding students to collect and analyse the corpus.

The teaching plan also points to time allocation for such listed activities, i.e., weekly lectures (60-70% of in-class time), student group presentations (15-20% of in-class time), and lecturer-student discussions (15-20% of in-class time).

6.6.1.4 Assessment strategy

Student learning outcomes from the module are subject to both formative and summative assessment, in multiple ways including:

students' preparation for class (their pre-reading of the module chapters), in-class reports (group-based presentations), participation in the lecturer-student discussions, group-based lexical research, and a final written examination.

The final grade will consist of 35% for the usual grade, 35% for the research paper and 30% for the final written examination.

Final paper requirement: Students will collect a corpus of English compositions they have written and use the corpus tool AntConc to analyse the characteristics of their own vocabulary use in English compositions. Students should choose one or several aspects of vocabulary use (e.g. use of conjunctions, use of prepositions) to analyse in depth and write a research paper based on the format of an empirical research paper. The final written examination is a closed-book examination, which examines students' mastery and flexible use of basic concepts in English lexicography.

Corpus research by student project groups (the PjBL element of the module and 40% of the overall assessment)

For completion of the paper entitled “an analysis of a first-year English major’s word use in English writing”, each student was supposed to collect 10 English compositions (e.g., a collection of writings containing 5000 words) they have written recently and the whole class will build then a corpus of EFL English compositions. The whole class form research groups composed of 3 to 4 students, and each group will analyse the use of English words from a specific perspective, feeding into a research paper of

1200 to 1500 words. In the end of the semester, each group will report their research findings to the whole class.

6.6.2 The lecturer's conceptualisation of PjBL

As with case study one, this section here proceeds to report the lecturer's (pseudonymised as Grace) beliefs as shown in interview accounts, from the lens of complexity theory. In contending the complexity inherent in teacher's belief as a system, further interacting with their practices, this section firstly attends to Grace's professed belief from interview accounts before the module, taking account of the aspects as noted in case study one (see section 5.5.2). Likewise, appreciation of such aspects adds to knowledge of the heterogeneity of Grace's belief system in case study two. Transcription for this interview is included in appendix six.

6.6.2.1 Heterogeneity of the lecturer's professed beliefs regarding teaching and learning in pre-service teacher education

1) Features of the lecturer's beliefs concerning teaching the English major

The beliefs elaborated by Grace concerning teaching the English major are dividable into beliefs about the ways of instruction (i) she saw fitting to the instructional aims and objectives of the module, and (ii) as woven into teaching at the departmental level.

Firstly, in sharing beliefs about teaching, Grace referred to teaching as predominantly an individual act within the department, by noting the absence of a prevasive pedagogy:

"...I think the ways to teach vary on an individual basis. For some distinguished professors, they can use personal charisma and rich knowledge to engage students. It also depends on the types of modules, like for 'Comprehensive English', there tends to be some presentations and peer interactions among students, so the pedagogy shall change along with the instructional focuses as well. The last influential factor is the personal styles of lecturers."

Together mentioned was the necessity of "*diversifying pedagogy to promote student learning gains and motivation*", prior to an affirmative attitude towards PjBL and its pedagogical potential. Grace then described her engagement with such pedagogy as a result of self-directed learning:

"I got to know PjBL from one themed workshop led by a distinguished professor from another university. I was offered a comprehensive workbook with many clear-cut guidelines for enhancing teaching. The professor has much expertise in project-based learning, and I learnt the pedagogy from him, which turns out to be useful."

She proceeded to stress personal conceptualisation of PjBL as:

I see the nature of PjBL as beginning with an academic project, which could enhance student competence in critical and deep thinking, not only limited to using the target language, like reading and writing, but also in comprehensive competence, like familarising them with research methods, process, and ways of thinking, together with peer collaboration. These are of equal significance to their learning the target language.

Such benefits as perceived parallel arguments by PjBL proponents in the literature. Firstly, as with Snedden (1977), Grace identified the use of PjBL in promoting student grasp of both subject knowledge and development of other transferable competence beyond the subject domain, e.g., conducting academic research.

2) *Teaching as a context-specific activity*

HEIs in China are contextualised in a cultural sense (Wang & Torrison-Steele, 2019). This was explicit in the interview as Grace implied a belief of viewing teaching as situated in a departmental context. By firstly sharing some general information regarding the faculty, she pinpointed to a perceived challenge in faculty personnel that "*...now within the faculty of English, we are significantly shorthanded", as a result of "...retirement of quite a few distinguished professors during the couple of years*". She further elaborated,

"Now there are relatively more associate professors and way more lecturers at the department, which is not an ideal ecosystem for the faculty."

As a result, such imbalance of personnel led to the fact that *"....academic titie accreditation is extremely challenging, for it requires a lot of instructional workload."*

Concomitantly, such problematic nature of the current "departmental ecosystem" was understood to pose challenges to beginner lecturers, whose research output were subject to strict reviews every three years. According to Grace, "*Though such reviews might promote research output of the faculty, it would also work counter-productively for attracting and keeping talents."*

6.6.2.2 Features of the lecturer's professed beliefs concerning teaching the module "English Lexicology"

Having shared her beliefs about teaching the English major in general, beliefs about teaching the specific module can also be noted from Grace's interview accounts.

She stressed the first concern in designing the module as relevant to content coverage of the module textbook, including the numbers of chapters. Concomitantly, in line with beliefs in teaching the major, her belief of module teaching was concerned with student knowledge acquisition and development of practical skills:

"The module English lexicology suggests far more than knowledge acquisition, but contribute to student wider repertoire, like doing quality research."

Such belief had then navigated the inception of some "*skill-oriented elements"* into module teaching, as students were divided into several groups for corpus research.

In examining PjBL application to the locality of Chinese HE, some pre-conditions and guidelines are identified by Dong and He (2019), in regards to transforming instructor role, striving for more diversified classroom dynamics and a balance between PjBL-based and traditional instructional methods. This was in a sense revealed in Grace's accounts concerning the concept and use of PjBL. Notably, connections were drawn

between PjBL and aspects of instruction as planned for the module "English Lexicology". Grace understood the module to be project-based since "*There is a focus of the class, in different project groups, to compare the words used by freshmen and sophomore students in their English writings, in the form of a research paper"*. Aside from contending the project to *"...require student self-directed learning and group collaboration"*, a willingness to engage a professor from another university, as the discipline-specific, external partner to assess student project outcomes was also conveyed by Grace, as a means to *"...add to authenticity of student project."*

Additionally, based on fruitful experience with PjBL, Grace proceeded to describe and further justify some amendments made to the project:

Now the project has become clearer, with tasks better elucidated. I will provide a format to the class, with lucid information regarding their task schedules and step-by-step, specific guidelines.

Meanwhile, the level of difficulty of projects has been altered. In the past, the students were required to write research papers on an individual basis, which turned out to be quite challenging and tiresome for them. It is thus better to introduce project discussion within groups at an earlier phase, and students appear to be more motivated and engaged.

In sharing one instructional aim of the module in *"...helping students grasp some fundamentals in English vocabulary, like some basic concepts and its evolving trajectories"* on one hand, relevance was drawn by Grace between the module and the project in use, namely student group-based corpus research via the tool AntConc:

"...by the end of the module they should have obtained some initial knowledge of doing corpus research, with appropriate selection of methods and sources of data. The research is made quantitative, which in my view is simpler to handle than qualitative research."

Thus, her professed beliefs concerning the constructs and objectives of the module, in

contributing to a compelling blend of student subject knowledge on one hand and research capability on the other, showcased a consistency with one defining feature of PjBL of engaging students in a goal-oriented constructive investigation, with the central activity being construction and transformation of knowledge on the part of students (Bereiter & Scardamalia, 1999).

Investment of time and energy from the teacher's side poses a significant challenge to PjBL implementation, especially given the completion of heavy instructional tasks within limited time in Chinese classroom settings (Xu & Liu, 2010). This was confirmed in this study as facing time-constraints in class, a flexible combination of in-class and outside-class time was in place, since Grace planned to distribute in-class time to student presenting group-based research, followed by her *"...diagnostic feedback and comments*." Also noting the limitation of the textbook with narrow coverage of scripted, fixed knowledge, Grace attempted to remedy it through an integration of in-class instruction and student project discussion outside classroom, so that *"...they could realise the pragmatics of textbook-based knowledge in various aspects and how they could be translated into research practices."*

6.6.2.3 Features of the lecturer's professed beliefs concerning learning the English major

In addition to boosting instructional outcomes of the module, Grace's pronounced enthusiasm in enacting PjBL, was intimately linked to student learning needs as reflected in adjustments in the overall curriculum. Taking the module as an example, she stressed that it used to be scheduled in the sophomore year, but now moved up to the freshman year. She ascribed such adjustment to student learning needs perceived by the department:

"Since we attempt to expose students earlier to holistic, systematic learning, so there is need to restructure the overall undergraduate programme, which often begins with fundamental modules targeting at student competence in English as the target language."

However, such underlying epistemology of learning as a linear process, from basic language knowledge to comprehensive, professional language usage, could barely suffice given student heightened needs in the programme. By describing the former curriculum as beginning with *"...surface learning, without student deep engagement"*, Grace then justified involving students in academic research as a platform for integrating student fundamental competence in English and fostering of higher-level, transferable competence beyond the narrow end of learning English merely as a language.

Concurrently, she linked such intention back to the module 'English Lexicology", as being "*...quite basic and made selective to freshmen students recently"*. Also considered was the level of difficulty of the module:

"...the module is moderately challenging to students, so they would find it acceptable."

Such statement adds credence to Grace's belief about learning the subject as part of the wider programme, subject to constant changes when issues arise. That said, her recognition the underpinning epistemology of curriculum restructuring, from a linear view of learning to attempting language knowledge for more sophisticated ends, reflects a constructivist view of learning as students should simultaneously engage in construction of knowledge, like learning the knowhows of academic research.

Of equal noteworthiness was the value of student voice in project. When asked about the selection of project topics, a willingness to involve student choice was conveyed:

"Perhaps not, as students are free to select their topics of interest, which would be conductive to their implementation process."

Such statement partially agreed with one central tenet of PjBL proposed by Thomas (2000), that is, projects should be student-driven to a considerable extent. What follows is the ratio of student unsupervised work time and responsibilities, which are to be tested in reference to later classroom observations.

Taken together, Grace's professed beliefs about how to learn the subject as implied by interview accounts, demonstrate a predilection for social-constructivist views of learning with equal emphasis on knowledge accumulation via rote learning and construction via participation challenging tasks. It was also likely that such earlier exposure of students to research stemmed from the contextual aspects of the department as situated in a research-intensive institution, in agreement with the highlighting of research in the accounts by the dean and other lecturer.

6.6.2.4 Features of the lecturer's professed beliefs concerning the role of students

The previous section on Grace's beliefs about learning the major sheds light onto the influences of constructivism and teaching as an adaptive practice. It could be inferred that her views on the role of students are also complex in nature. For instance, she perceived the need to constantly update teaching in line with student enhanced competence:

"I strongly feel that we should strive for higher quality in teaching, since for one thing, students now possess more academic competence than those enrolled in the programme a decade ago; for another, by virtue of a better knowledge base, students harbour higher expectations for their undergraduate study, thus requiring more involvement from their instructors; we must keep up with the time."

Accordingly, she deemed it within her responsibility to devise and enact pedagogy conducive to both transmission of subject knowledge and cultivation of student transferable skills. In this case, she regarded students as knowledge recipients.

Equal importance was attached to boosting student in-group discussion on their projects, as Grace noted the importance of student in-group project discussion and negotiation on an ongoing basis, to aid in their putting textbook-based knowledge into research practice. Notably, this indicates a social-constructivist interpretation of students as social beings, capable of learning via social interaction. Also, such underlying epistemology agrees with constructivism as one core philosophical grounding of PjBL, that construction of knowledge occurs by individual interaction

with their surroundings through an investigative endeavour (Piaget, 1991).

It is then evident that Grace's professed beliefs about the role of students in PjBL aligned with her reported beliefs about learning. Thus, her beliefs about learners were compatible with other sets of beliefs in regards to teaching and learning the English major.

6.6.2.5 Features of the lecturer's professed beliefs concerning the role of the lecturer

Subsequent to professed beliefs about students, Grace depicted her role as diversified in the PjBL process. That said, in tandem with her planned role as an instructor in classroom settings, she tended to also serve as a collaborator in student project work. To exemplify, she described the need to brainstorm with students regarding topic selection as students might grapple with the procedures of doing research.

Ascending to student conducting project work, Grace planned to act as a motivator by offering emotional support and encouragement, so as to create a tension-free environment. Lastly, she was inclined to be a learner to student project work, given some topics would be quite foreign to her, thus necessitating self-directed learning beforehand.

More detailed descriptions of her intended role were also provided during the interview. To illustrate, when depicting student projects to be unscripted to accommodate student interest in the first place, upon topic selection a facilitative role was implied:

I will then check whether the topics are appropriate in terms of scope, reasonability, and novelty. I will also look into the process of their topic selection and project implementation, to ensure they are running smoothly.

For smooth project work by students, Grace identified a necessity to monitoring, yet planning to do so strategically:

I do not assign certain types of research topics to students, but try to activate their

individual thinking concerning what they will investigate through their research. They should be given certain latitude, and simultaneously be guided, based on my experience.

As shown in the excerpts above, the terms used by Grace to label her role generally suggested a facilitative than didactic role. Also implicitly expressed were her professional attributes in regard to empathy, patience and love with students that *"I would constantly motivate them during the process and offer emotional support in a timely manner."*

As a result, Grace's professed confidence in enacting PjBL can be linked back to her professional beliefs concerning teacher knowledge deducible from her accounts, covering pedagogical knowledge secured in a familiarity with the PjBL approach.

6.6.3 Weekly observations of the module "English Lexicology"

Grace conveyed an affirmative attitude of PjBL, based on positive conceptualisation of PjBL's pedagogical utility and successful experiences with such approach. As emerged from the subsequent weekly observations, Grace's practice with PjBL was also complex in nature, with tractions of both didactic and constructivist teaching.

6.6.3.1 Initiation of the project

The episode below from the first session of the module is about the initiation of the project.

This module is optional to all freshmen students from the major of English literature. The instructional language in use was a mix of English for presenting knowledge points and Chinese for clarification. The first lecture is teacher-centric and concerned with introduction of some lexicology concepts and the module-specific to students.

Grace began the class by raising a warm-up question to check student vocabulary. She then pinpointed to the use of textbook as an important reference. She moved on to She moved on to display some other reference books on linguistics in English and Chinese on the PPT slides and gave brief comments to each.

What followed was an elaboration of the concepts of linguistics and relevant esteemed linguists. For example, the first concept, monophony, was brought to student attention by the pair 'sun/son'. Some more such examples were further provided. In a similar fashion, here were more concepts in lexicology explained, demonstrated, and elucidated with written examples by Grace on the white board, including: word meaning and prototype, change of word meaning, differences between American and British spellings, language and gender relating to sociolinguistics, incident of vocabulary learning.

Ascending to the next session, Grace specified to students that the module was "project-based in nature", for students would do group-based lexical research with corpus tools. She carried on to present more concepts and relevant examples.

More details concerning the project were offered by Grace in the next week, when she reiterated doing lexical research as one important task for the module, under a range of topics relating to freshmen English major's word use in English writing. Then, by writing on the white board, she gave explicit definition of qualitative and quantitative research as two concepts, together with their Chinese meanings. Concomitantly, Grace specified that the 'project' would be in a quantitative tradition as more appropriate to students as beginner researchers.

She went on to offer detailed information on the steps of project completion on the PPT slide. Namely, the whole class would firstly form research groups of three to four members, on a voluntary basis, and name the group. Examples of group names by previous class were offered.

Then, group members should take the role of 'group leader' in turn, and write a weekly research log to include the ongoing activities, temporal outcomes and challenges, as well as a summary of each member's contribution.

The next step related to the building of a corpus by the whole class, with each student contributing at least ten past compositions to the class QQ-group. Following that, each group engage in investigation of related papers and formulate accurate research

questions.

Furthermore, by delving into the newly-built corpus data, student groups will detect given patterns of word use with application of AntConc, which feed into a research paper of 1,500 words in English, in APA format. Each group member would be responsible for one section of the paper.

Lastly, there would be a research seminar on the 15th week, with students presenting their research outputs to the whole class. This would be in a formal fashion with hosts, guest commentators and conference leaflet. Each student is required to partake in the 20-minute-long group presentation.

Aside from the holistic process of project work, Grace highlighted the use of social media as a platform for extra-curricular negotiation of the projects, both within student groups and between her and students to track the research process and discuss emergent issues. By saying so she visualised the process of doing research as a cyclic, rather than linear, process. She moved on to review the previous seminars and the work done by former students.

The initiation and form of the project for case study two, being student group-based corpus research, align with Grace's professed belief in relation to teaching the module and English major in a broad sense. Concurrently, doing research also seems a shared instructional concern within the department, as reflected by interview accounts from the dean and the other lecturer. The project was also designed to run through the 15-week module duration, with pellucid guidelines for progress on a weekly basis, as students were expected to take turns to fill in the project log. Taking account of such observation and interview accounts by Grace, a mix of PjBL and didactic can be identified. That is, there was a substantial amount of demonstration on concepts, definitions, and examples, as prerequisite for student knowledge base in completing the project, which served a chance for students revising, consolidation, and application of previously imparted knowledge. Such planning of project is partially compatible with the criteria of PjBL developed by Thomas (2000), in that the project

was indeed moderately challenging and "'drive' students to encounter (and struggle with) the central concepts and principles of a discipline" (p.3). Nonetheless, as showcased by observations, instead of being "the central teaching strategy", with "students encounter and learn the central concepts of the discipline via the project" (ibid.), here the project seemed to be enacted in conjunction with traditional lecturing with student command of disciplinary knowledge as a pre-condition; that said, the students were to be engaged in knowledge application than acquisition. As such, it might run contrary to the centrality of project as the second criterion.

As a result, Grace's familiarity with the PjBL approach was evident, paralleling her professed beliefs in the aim of subject teaching and learning as helping students "*realise the pragmatics of textbook-based knowledge in various aspects and how they could be translated into research practices.*" Simultaneously highlighted to students were the need of self-directed and collaborative learning, trackable in the PjBL-relevant literature (e.g. Guo, 2020) as well.

6.6.3.2 Demonstration of using the tool AntConc for corpus research

Given the project in the form of lexical research, familarising students with the corpus tool, AntConc was listed within the module teaching plan. Observational note shows that a classroom-based instruction targeting at the use of AntConc was offered by Grace in the section session on the third week.

Firstly, Grace referred to the PowerPoint slides to show the concept of function and content words, as well as their number in English and Chinese, together with some examples such as 'OK' -'all correct' – 'okesutora'. She then introduced the utility of AntConc as a robust tool for corpus analysis, and the student project work for this module.

The remainder of the session involves her step-by-step demonstration of using AntConc for corpus analysis, by providing a set of searching examples, e.g., type/token, n-grants/clusters, collocation (lexis), semantics, and discourse prosody. Emphasis was placed on type-token ratio as a measure of lexicial change, with an

illustration by a literacy text to detect frequency in relation to corpus size, N-gram (cluster), collocation, colligation (in many/some/what/other cases), and semantic preference (cause).

The next activity includes Grace's showcasing another example of conducting corpus analysis by AntConc, namely the detection of the most frequent content words within the file of a governmental report.

Getting towards the end of the session, Grace offered information on accessing useful guidelines of corpus analysis and some other tools, e.g., CLAWS, Postag.

Hence, the session on using the corpus tool could be understood as an indication of the explicit incorporation of PjBL into the module, evidenced by Grace's frequent mentioning and illustration of AntConc for corpus research as the project to be done by students. On the other hand, considering her allocation of roughly half of the in-class time for such detailed demonstration of manipulating AntConc, her assisting in student projects at the preliminary stage became discernable.

6.6.3.3 A step-by-step demonstration of doing research

Following the demonstration of AntConc application on the third week, observational notes reveal Grace's elaboration on the requirements of the corpus research, coupled with a step-by-step demonstration of undertaking research, as another notable PjBL-relevant activity in case study two. Such demonstration was conducted on the first session on the fourth week.

Grace began the first session by introducing the concept of 'research' and then specified that, for the corpus research as the 'project' for the module, it would be completed collaboratively by student project groups. Also stressed were the tasks surrounding the project work, e.g., data collection, presentation and analysis, and that each group member will be graded the same score for the project.

The remainder of the session was mainly about Grace's explanation of the structure of research papers, e.g., abstract, introduction, results and discussion. Encourages were

given by Grace to students, to conduct effective project work. Grace also shared that she would fund a collection book for research by student groups. This was followed by a review of some sample research papers with emphases on structures and contents.

Transcending to the next session, Grace justified research as the the project, by showcasing the institution-specific instructional objectives for English majors. That said, at Institution B, instructional emphasis is clearly placed on enhancing student academic proficiency. Grace then stated that for freshmen students, they would be exposed to the knowhow of doing lexical, quantitative research.

The definition of research were displaced on the PowerPoint slides, together with some comments, from distinguished Chinese scholars, on doing research as an intimidating yet rewarding experience. The session ended with Grace's further encouragement to students.

6.6.3.4 Demonstration of the procedures of doing research

Subsequent to the demonstration of using lexical tools and undertaking academic research, Grace spent another session on the 5th week to clarify the upcoming tasks of the corpus research with the whole class. This time, students were required to sit within their project groups.

Firstly, Grace elicited student attention to build a class corpus, so as to formulate potential topics for student group projects. Each group was required to build a corpus, based on three essays (argumentation, narration and exposition) from each individual participants.

Grace clarified the upcoming tasks within the corpus research, marking the completion of building a class corpus, with focus on selecting topics for group projects. Each group is required to formulate a corpus containing the writings (argumentations, narrations, expositions) from each member.

Grace carried on assisting in student group projects by providing guidelines on

exploring the literature, then gave a demonstration of searching for relevant themes and topics by citation rates, sources, and years of publication.

She then explicated the selection of research topics, referring to the previous group research, demonstrating to the class some of the quality research papers. She moved on to highlight the complex nature of academic research, and simultaneously motivated the class to carry on with their group research to translate extrinsic motivation into intrinsic motivation.

Later, Grace introduced CSSCI (the Chinese Social Sciences Citation Index) as a powerful research database, the significance of doing corpus research, as well as the research process as cyclic rather than linear. She additionally drew from personal experience of doing research, commenting *"research is something achievable not by one's intelligence but diligence*.", further highlighted team spirit and collaboration in conducting quality research.

Grace moved on to offer some more reference books relating to corpus research. Also highlighted was the use of Longman dictionary for corpus research as a demonstration. In the remainder of the session, Grace continued displaying several pieces of previous group research as good examples, then referred to one such examples the use of RANGE for corpus analysis.

As such, it can be deduced from the above three demonstrations that, PjBL seemed to be explicitly incorporated as an essential component of the module. A considerable amount of in-class time was attempted for introducing the fundamentals of research with some applicable tools. Furthermore, in building upon the work by former students and personal experience of doing research, Grace presented herself to be a motivator to the students., in admitting the somehow intimidating nature of doing academic research. She seems to show much empathy to the students and performs as a motivator to their project work.

Meanwhile, there are a significant number of introductions and relevant examples to illuminate given terminologies in lexicology. The first five lectures were evenly

distributed into dissemination of conceptual knowledge and guidelines on student research. The use of AntConc, as a professional tool for lexical analysis, constitutes much in-class time. The students learn the use of AntConc together with negotiating and working on group projects.

The student group projects were devised in quite formal formats, with clear timeline, setting of tasks, in tandem with a simulated academic conference for project presentations. Also, the compliment of conference leaflets/brochure, invitation of guest commentators and a final collection of project outputs seemed to add a sense of authenticity to the projects.

6.6.3.5 Student negotiation of group projects beyond classroom setting

The formulation of student groups resulted in eight groups involving 53 students in total. As required by Grace, each group should form a group chat on QQ for further project work. Concurrently, each student would upload 10-15pages of personal writings onto the group files, to form the target corpus for student research.

6.6.3.6 Student sharing of current thoughts on their group-based research

The 8th session was predominantly concerned with student sharing of current thoughts and process with their group-based research, in the form of short presentations by groups. The first session consisted of student initial presentations of project process, with one student from each group as the presenter. The aspects below were covered:

1) Tentative topics for research, in aspect to relevance to the module and key concepts as imparted;
2) Justification of the research, in which significance of the research was highlighted;
3) A preliminary literature review, with emphases on some key references;
4) Tentative research questions and methodology (quantitative), in light of gaps in the literature; and
5) A summary of references covered by far.

Each presentation constitutes around five minutes, followed by Grace's immediate comments and suggestions in terms of research topics and formats of references, e.g. *"it seems better to narrow down your research topic a bit", "the definitions of certain terms should be further clarified*.".

Grace's role as a facilitator to student project was evident. Observational notes show that when the second group conveyed a research interest in colloquialism in the English writings of freshmen, Grace complimented on such research topic and offered immediate demonstration on searching for relevant literature on CNKI, e.g. identification of reliable sources. Proceeding to the presentation by the fourth group on stance markers, she elicited student attention to alternate analytic tools for corpus research.

As such, the class was overwhelmingly occupied by student mini-presentations, marking an opportunity for their demonstrating current progress and receive comments from Grace; the comments were given in a rather mild, friendly tone by firstly confirming student progress and then pointing to the areas for enhancement, thus reflective of Grace' s supproting of student group projects, aligning with her professed role as 'mixed' in student project work. In addition to offering concrete advice on initial design of projects, Grace also spent in-class time demonstrating the manipulation of given tools, e.g. RANGE, for corpus analysis/research.

Concomitantly, the granted space of autonomy to students also surfaced during the lecture; that said, they were firstly allowed autonomy in selecting topics for group research, and could carry on research under selected topics as appropriate. Grace, on the other hand, retained control of both the nature and contents of student projects, while still admitting original ideas/plans from students.

6.6.3.7 Lecturer-student Discussion of student projects: extra-curricular sessions

Like in case study one, Grace also initiated extra-curricular sessions to discuss with students about their projects, via online meeting on the 10th week. The meeting lasted for 168 mins in total, with 15-20 minutes teacher-student discussion for each group.

Observational notes suggest the dominant role of Grace in the discussion.

Firstly, in reference to the form detailing (a) names of student project groups (b) names of group members and (c) tentative topics for corpus research, Grace asked each group about their general ideas on research topics, as well as existing confusions. Each student responded to such questions actively. Then, based on student responses, Grace offered further advice concerning research topics, pertinent databases and analytic software or tools.

Grace's providing emotional support to students was frequently captured by observational notes, which was in line with her professed belief concerning her role as 'empathetic'. In other words, she firstly offered confirmation to student efforts and critical thinking, before building on personal knowledge to help modify the current outcomes. To exemplify, direct comments were given like "*The present topic/direction might be a bit broad*" or "*This sounds like a rather comprehensive and challenging topic for you to start with*." The second step was to guide student groups towards sensible revision of research topics, in which Grace extracted key words from the current ones and explored them at the database of China's National Infrastructure of Knowledge (CNKI). Then, according to the results, Grace navigated the student group to discern the most relevant and quality references, e.g. by topic, source and years of publication. Lastly, she confirmed with student groups whether they were willing to conduct corpus research under the revised topics. The table below showcases Grace's example comments to different forms of project tasks:

Tasks	***Example comments from Grace***
Topic selection	Agreed upon beforehand, with all comments being positive, e.g., "This topic is interesting."

	"There is novelty in your chosen topic."
Wording of the whole paper	"This statement seems quite over-generalised." "This argument should be more specific." "This seems 'Chinglish' to me." "I would expect more coherence." "This is not academic English, please revise."
Structure of the whole paper	"The methodology section should be condensed." "More examples are needed." "The section of 'conclusion' is lacking." "This section can be merged into the previous one."
Overall scale of corpora	Agreed upon beforehand
Format	"This is not the correct format for citation."
Relevance between data analysis and RQs	"This research question needs to be flagged more in the previous sections."
Breadth and depth of data analysis	All positive, e.g., "You have achieved a good level of analytic depth of the selected corpora data."
References	"This cited journal is not of high quality."

	Word-for-word corrections of expressions within the texts.
	Motivation, e.g., "Go for it! I believe the next edition would be better." "I can't wait to read your final paper." "It is a joy learning about your project plan."

Table six: lecturer example comments to project tasks

Also specified were the next steps by student group work, to polish the research papers for submission in the following days, namely submission of second draft as the final edition) by 28th June, and Grace's compiling of a research collection in July.

6.7 Conclusion

This chapter presents findings relating to PjBL adaptation in case study two, building upon multiple sources of data to unpack the complexity of PjBL adaptation. To illustrate, exploration of the institutional-/departmental-level cultural scripts for teaching offer context to the lecturer's PjBL adaptation as expounded on in section 6.6, the focus of the whole chapter. Sub-sections 6.6.2 and 6.6.3 delve into the complex interplays between the systems of beliefs and practices of Grace from the perspective of Complexity Theory.

The findings indicate that, PjBL was incorporated as an important unit into the module, running through the whole duration of module. The design of the project, in a sense, aligned with one department-level cultural script for learning, was attempted to cultivate student competence in research. Findings from interviews and observations point to a general match with lecturer beliefs and practices. The module was research-based, as several sessions of research skills and methods were provided alongside student involvement in group-based research beyond classroom settings. Interestingly, the project was in a sense prescribed as students selected their projects from a range

of prepared topics. The figure below visualises PjBL enactment in case study two. As in case study one, here the interplays between context and lecturer belief systems are located at the centre, which are further linked to PjBL enactment and an eclectic approach as observed. Given cultural scripts are identified which differentiate case study two from case study one, i.e., a focus on student developmental needs.

Having presented PjBL application in Chinese English major education as case study two, the next chapter moves to an overall discussion, based on the main findings from the two case studies.

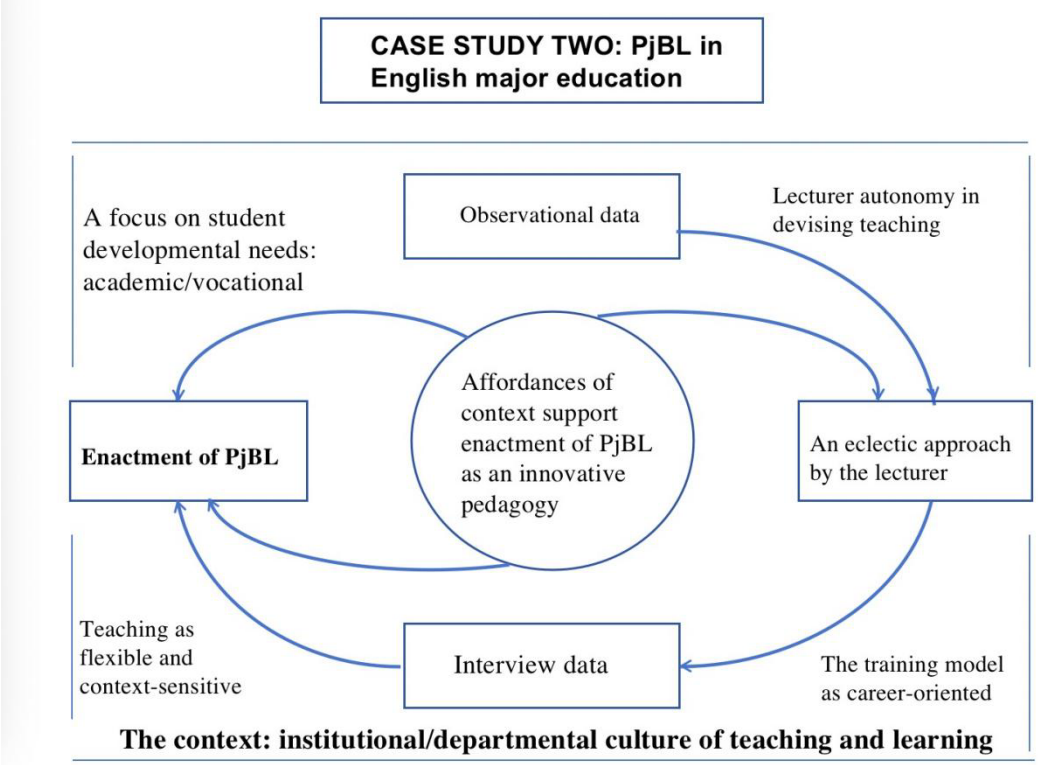

Figure two: visual for case study two

Chapter Seven: Overall Discussion

7.1 Introduction

The previous chapters have considered the evolving context of pedagogy use and transportation of Western pedagogy in Chinese HE and the context in which Project-based learning seems to be one such pedagogy, together with the cultural script for teaching at the institutional/departmental contexts. Further explored are the enactment of PjBL by the two lecturers, in relation to their educational beliefs.

This chapter intends to connect the findings presented in the previous chapters by presenting an overall discussion in relation to the key points from the findings and an initial discussion of the two RQs, referring back to literature review chapter. The kernel of the discussion rests on the findings and initial discussions from chapters 5 and 6, in order to explore the extent to which the findings from this study can fill the research gap identified there.

Teaching, as one manifestation of education, is intimately linked with societal and cultural contexts (Ozupek & Ozer, 2015). The quickening paces of internationalisation in Chinese HE have further promoted the transportation and enactment of Western pedagogies (Lin, 2019). Yet, as highlighted in the literature review chapter (chapter 3), there is not enough focus in the domestic literature on context when considering enactment of Western pedagogy in the Chinese context (He, 2008), despite the expanding domestic scholarship on the proposal of PjBL as an innovative pedagogy (e.g., Chen at al., 2018; Wang, 2020; Zhang, 2021), effective in developing learner comprehensive, 21st century competence (e.g., Chen, 2022; Han, 2021; Zhang & Gao, 2025), and empirical accounts of PjBL enactment in multiple disciplines (e.g., Niu, 2023; Wei, 2024; Yang, 2020). Only a few attempts have been made to situate PjBL enactment within the local instructional contexts, like developing the pre-conditions (Dong & He, 2019) and proposing a local model (Zhang, 2015) for effective PjBL enactment. The negation of context in PjBL research is attributed to the challenges in unpicking the fluid relationships between beliefs and

practices in relation to contexts, highlighted as one gap in the literature in section 3.3.2.4.

In response, this study applies Cultural Scripts for Teaching to explore the context, and innovates by combining the strengths of Cultural Scripts for Teaching and Complexity Theory to unpick the nuances of lecturer beliefs as they interpret and respond to affordances and constraints of their situated contexts, by adapting their enactment of PjBL.

Findings suggest that, overall, PjBL presents a non-traditional, innovative pedagogy in Chinese HE, and is not adopted wholesale. On the one hand, the two lecturers' practice of PjBL stemmed from their recognition of PjBL's pedagogical potential in promoting student acquisition of subject knowledge and development of skills. Equally notable were the anticipated challenges with PjBL instruction, e.g., the long-standing pressure for summative assessment of the Chinese examination-oriented education system, its covering of instructional contents and students' inadequate English competence and motivation. Via investigating into the aspects of lecturer beliefs as a complex system and the complex relationships between such aspects and lecturer instructional practice with PjBL, this study sheds light on the complexity of PjBL adaptation in Chinese HE. Specifically, the tenets of PjBL served as a lens with which to understand the situatedness of PjBL; the perspectives of Complexity Theory were used to tap into the complex interplays between the lecturer belief, practice and the context, together with the perspectives of Cultural Scripts for Teaching to illustrate given aspects of the context.

The figure below visualises the overall structure of the discussion; that is, the ways lecturer beliefs and practices interact with each other to shape their personal adaptation of PjBL, which is simultaneously mediated by the context.

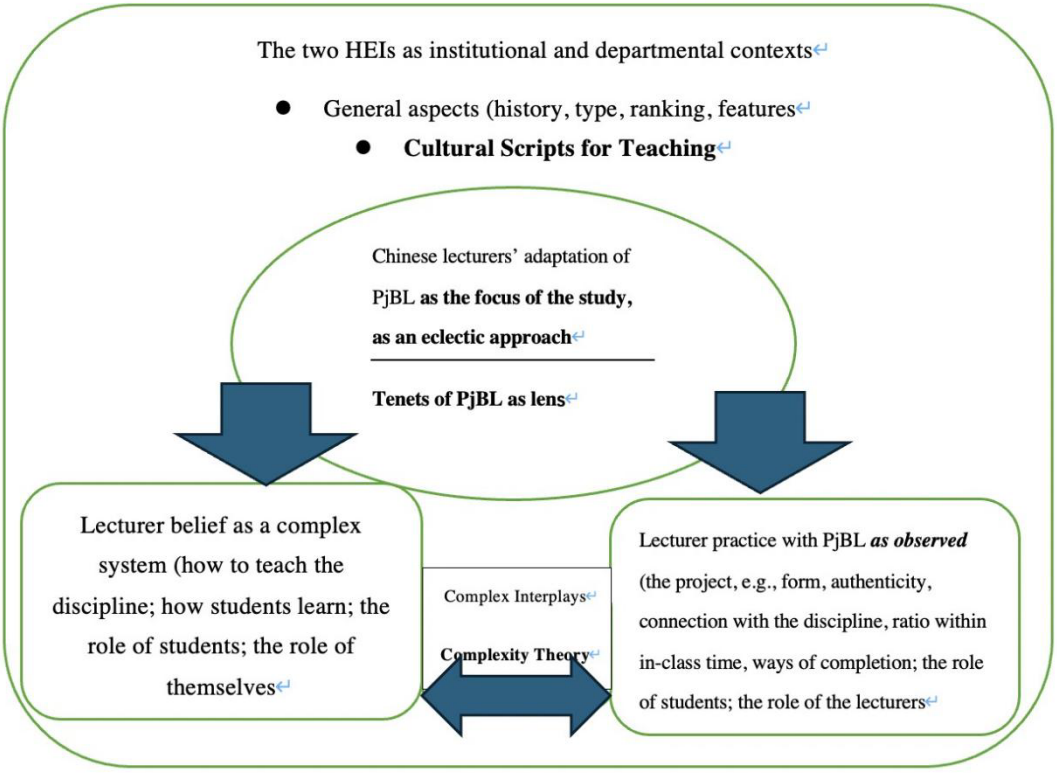

Figure three: overall structure of the discussion

The introduction section summarises the main findings of this study and the conceptual lenses used. The next sections build upon the figure to engage in an overall discussion of the main findings in relation to the 2RQs. RQ1 is addressed through sections 7.2, 7.3 and 7.4, and RQ2 through sections 7.5, 7.6 and 7.7.

Section 7.8 concludes the chapter.

RQ1: How is western pedagogy adapted in Chinese higher education, with specific reference to PjBL as a case?

7.2 Lecturer perceptions of PjBL

As revealed by both interview and observational data, the two lecturers in this study (Dave and Grace) did not wholly follow the working definition of PjBL in this study. Instead, they tended to re-interpret the constructs of PjBL and the pedagogical effectiveness it could serve for their teaching. Grace seemed to embrace the PjBL approach by re-defining and performing her role as facilitative and showcased an

inclination for inclusion of external partnerships, while Dave articulated a commitment to coverage of prescribed instructional contents, which was understood by him to be partially exclusive to the implementation of the PjBL approach, as project work necessitated substantial investment of time and subsequently, extra tasks on his part. The same was reported by Marx et al. (1997), that new implementers of PjBL are generally inclined to adopt PjBL partially. New implementers of PjBL face challenges in incorporating PjBL-based techniques (Cell, 2009). A possible explanation, according to Supovitz and Turner (2000), lies in the profound impact of content preparation on instructional practices and classroom culture. This was reflected particularly in case study one, where a strong content orientation was shared among the departmental faculty members, which subsequently fed into their shared instructional practices, captured from the department-level cultural scripts for teaching. As a result, this study suggests PjBL to be partially contradictory to such a script, by challenging the HE practitioners to shift the traditional epistemology of teaching in Chinese HE and pedagogy.

7.3 **Lecturer adaptation of PjBL as complex**

The study is mainly concerned with unravelling two lecturers' adaptation of PjBL as one Western pedagogy in Chinese HE, as epitomised by the relationship between lecturers' beliefs and practices, subject to the mediating effect of their situated departmental, institutional, and national contexts. As with Muchlis et al. (2023), both lecturers in this study seemed to integrate PjBL with other didactic, discipline-specific instructional methods towards the module-specific instructional goals.

The key tension underlying enacting the PjBL approach in Chinese context, rests on the philosophical underpinning of PjBL - namely, constructivism - which points to an innate dilemma between learner-centredness and teacher-centredness. Both lecturers argued that, though the PjBL approach breeds much pedagogical potential, the pressure of implementing such pedagogy wholesale is substantial. This especially applied to case study one, as Dave particularly stated that PjBL would work counter-productively, considering inadequate learner motivation and competence in English.

Notwithstanding the differing degrees of recognition of PjBL, in this study, one overriding tenet of PjBL, namely completion of an end product by learners, seems to be generally accepted by both participants as facilitators for learner engagement and motivation in the learning process. Supporting learners' collaborative, group-based work, however, seemed to trigger certain negative emotions, such as uncertainty and fatigue. This is especially the case in Dave's module where, in some cases, he seemed to 'spoon-feed' the details of project work to student groups in discussion sessions. Concurrently, he had to constantly exercise self-directed learning to build knowledge of the PjBL approach (see section 5.5.2).

The adaptation of Western pedagogy in Chinese HE, explicitly PjBL, is replete with complexity, echoing the reported dilemma between teacher- and student-centric pedagogy in the literature (e.g., Yin et al., 2017). Certain issues covered by prior studies of PjBL in the Chinese context, and the Asian context at large (e.g., Fang & Warschauer, 2004; Gu, 2007; Huang, 2004) have also emerged in this study. For example, the hampering effects of large class sizes, fierce competition in workplaces, the conflicts between the utilitarian goal of HE in cultivating capable individuals and the hierarchical distribution of resources to different HEIs. Notably, building upon the accounts from the lecturers and other relevant HE practitioners, together with the classroom observational notes, this study goes one step further in exploring the constraints on PjBL implementation at the local level. That said, it also shows how PjBL indicates both opportunities for better translating disciplinary knowledge into transferable skills, and yet ambivalences when confronted with the instructional pressure of covering prescribed contents.

7.4 **An eclectic approach in place: the combination of PjBL and didactic instruction**

The perceived constraints of PjBL by lecturers as discussed in section 7.3 could, to some extent, account for the emergence of what can be termed as an 'eclectic approach' featuring parts of PjBL and that of traditional, teacher-centric instructions. The term 'eclectic approach' refers to the phenomena which were noted during either

interviews or observations. The use of eclectic approach parallels the eclecticism in China's paradigm of pedagogy, as summarised in section 2.5.1.

7.3.1 Lecturers' actual enactment of PjBL via traditional instruction

As discussed in section 2.3.2, teaching at the tertiary level is a complex act. This was reflected especially in case study one in this study, where PjBL was undertaken mainly in the form of didactic instruction, e.g., project launching as pretty much prescribed (see section 5.5.3.1), student project work subject to frequent teacher checking via end questions (see section 5.5.3.3) and student in-group discussion not being the central element of in-class time but conducted outside classroom hours (see section 5.5.3.1). Such findings lend credence to the statement by Chan and Elliot (2002) on the profound impact of traditional Chinese culture on local instructional practices. This is especially evident in case study one, where teacher demonstration and students' uncritical imitation seem to play significant roles in such project work, since Dave tended to require student borrowing from standardised templates/exemplars, rather than encouraging the students' own voice and choice in their project. In case study two, by contrast, notwithstanding Grace's allowing for more student autonomy in selecting the title of their projects, the form of student projects remained prescribed as lexical research.

Given that both participants are aware of the nature of their instruction as 'eclectic', and specifically Dave's frequent mentioning of the unsuitability of PjBL to the classroom setting, it can be deduced that PjBL implementation may suggest more challenges to teachers in Chinese HE, and that the 'eclectic approach' is more prevalent in pre-service teacher colleges than in research-intensive universities.

Also, the participants' perception was that their traditional form of instruction, e.g., following the model of 'presentation, practice and production' was PjBL-based in nature, e.g., Dave's planning of the project as discussed in section 5.5.2. Subsequently, the 'eclectic approach' refers to the contradictions between the participants' interpretations of their own practices and the working definition of PjBL

developed from the literature review. The existence of the eclectic approach can be potentially attributed to the following phenomena, from a researcher perspective:

1) Chinese lecturers have alternate conceptions of PjBL. It stresses the nature of pedagogy as culturally bounded and contextually situated.

2) Chinese lecturers are pragmatics, remaining open to a set of pedagogies which might come in handy for the fulfilment of their instructional aims, which drive them to combine PjBL with traditional instruction rather than clinging to PjBL wholesale. As a result, the varied adaptations of PjBL by the two lecturers reveals the varied complexities, and also adaptabilities, of the two lecturers' belief systems in relation to interpreting and implementing a Western pedagogy. The philosophical underpinning of PjBL, constructivism, seems to contradict the prevalent pedagogy, or ways of instruction, the lecturers are used to or largely deem useful, particularly regarding their changing roles, from a dominator to facilitator to student learning. Therefore, experimenting with PjBL presents a complex processs, as the lecturers responded differently to the need to be epistemologically open to the constructivist theories underlying PjBL.

3) Chinese lecturers tend to enact PjBL in a context-sensitive way, in practical light of the compatibility between PjBL and the local culture for teaching. Their alternate experimentation with PjBL may also stem from the distance between PjBL and their teaching realities. Therefore, as social beings, their epistemologies cannot be completely immune to the cultural script for teaching at the institutional/departmental level. That said, they infused eclecticism into PjBL as a western pedagogy, tailoring given constructs of it to be contextually appropriate. In other words, adaptation of PjBL reflects the multiple aspects of the wider

Chinese HE context, institutional/departmental culture and the classroom cultures in which the lecturers find themselves in.

A further paradox from Dave's narratives centres on the role of learners' self-directed learning, either as a necessary starting point for PjBL or as a desired outcome of PjBL. It seems that, to be fruitful, PjBL requires sufficient competence in English, which is, however, the very capacity that his students were alleged to be lacking.

Meanwhile, Dave indicated during the interview that the interactive, student-centric aspect of PjBL ran counter to China's dominant culture of testing, e.g. the forthcoming, paper-based examination for national teacher qualification, which involves many end questions in the form of teaching concept interpretation, calling for deliberate memorisation. As a pre-requisite to students' entry to the teaching profession, the rigidity within these summative tests is considerably outside the bounds of PjBL.

As a result, if Grace's eclectic adoption of PjBL can be attributed to her own individual interpretation of PjBL, then such an eclectic adoption by Dave can be understood both at a cognitive and practical level, given the pragmatic challenges he perceived prior to his PjBL enactment, e.g., the learners' inadequate English competence, inability of self-directed learning and the burden of summative tests.

RQ2: How do the complex systems of Chinese lecturer beliefs and practices interact with such new western pedagogies?

7.5 Lecturer belief as a complex system

This study comprises an in-depth exploration of the enactment of PjBL by Chinese lecturers, by considering their perceptions of PjBL on its pedagogical potential and suitability to their instructional contexts, as woven into the complex, sometimes inconsistent relationships between their beliefs as professed and practices as observed. Such enquiry constitutes the basis of the discussion in chapter 5 and 6. To specify, sections 5.5.2 and 6.6.2 are concerned with lecturer conceptualisations of PjBL in

relation to their educational beliefs, e.g., their perceived benefits of PjBL, their anticipated challenges with PjBL implementation and their planned responses to such conflicts as linked to their educational beliefs. Sections 5.5.3 and 6.6.3 explore lecturers' instructional practices with PjBL in light of non-participatory, observational data.

The data in this study also investigated the teachers' beliefs. The findings correspond with the literature regarding the importance of teacher beliefs in teacher practices (Borg, 2005; Pajares, 1992; Richards, 2001), in that the former significantly influence the latter by guiding teacher judgements and instructional actions under classroom circumstances (Chant, 2009; Heafner & Bennett, 2004; Levin et al., 2013). In other words, the lecturers' beliefs affect their motivation in, and approaches to, innovating within their instructional practices. It is evident throughout the initial discussion in chapter 5 and 6 that lecturers are making their own decisions about their teaching and that their beliefs are very influential in their practices. As shown at the bottom left of the figure, and as also seen from the discussion, varied aspects of teacher beliefs come into play in their teaching; for example, their knowledge of areas which relate to their teaching. The study has also highlighted the complexity inherent in lecturers' beliefs and how they contribute to the complex interplay between aspects of their belief systems along with their individual beliefs and practices.

As a result, perceiving lecturer beliefs as a complex system in this study resonates with Fives and Buehl's (2012) highlighting of the complexity of teacher beliefs, in that such beliefs can be divided into several categories and that some are often tacit, and only capturable via observations in the immediate classroom context. In line with such thought, then, the study mainly builds upon the data from classroom observations and interviews as two major sources of data, and some discrepancies emerged which offered further empirical evidence that teacher beliefs contribute to a functional system in various aspects. It is evidenced in both case studies that, in addition to self-directed learning of the established constructs and principles of PjBL by theorists, particular aspects of beliefs, e.g., the ways in which to teach the subject,

student competence and their personal reportoire in pedagogical innovation filtered into their interpretations of PjBL and later guided their actual instructional practices.

The myriad of interactive aspects of teacher beliefs in this case study, concurrently, uncovered the uniqueness of their beliefs at an individual level, and confirmed that some aspects of those beliefs can be augmented by the established patterns of belief shared by groups of in-service lecturers. To illustrate, both lecturers prioritised ample coverage of contents alongside use of PjBL, and they were arguably 'lonely' in their enthusiasm in trailing innovative pedagogy compared to their peers from the same department.

What seemed equally intriguing are the ways some aspects of the lecturers' beliefs demonstrated greater levels of stability, despite the potential of PjBL acknowledged by them. That said, though Dave was convinced that engaging students in meaningful projects could generate greater outcomes, he was prone to direct, rather than support, student project works by teacher-centric, controlled practices or direct demonstration. This was due in part to his prior knowledge that learning to teach is a linear process via student apprenticeship under the guidance of the teacher. Such knowledge, in hindsight is derived from his personal experience; what Richardson (1996) regards as an internal source of teacher belief. Likewise, it is evident that both lecturers resorted to self-directed learning in order to grasp the fundamentals of PjBL and devise appropriate ways of PjBL incorporation, and their reflection suggests another notable internal source of beliefs. Meanwhile, the lecturers' consciousness in adapting PjBL with a set of contextual aspects, e.g., student proficiency, assessment requirements and cultural scripts for teaching, reflected the powerful role of external sources of beliefs. Hence, such findings involve both internal and external sources of teacher beliefs, paralleling the results of some studies, e.g., Levin et al., 2010, 2013.

7.6 Complex interplays between lecturer beliefs and practices in PjBL adaptation

7.6.1 Complex interplays between lecturer beliefs and practice

The findings from Chapters 5 and 6 add credence to the complex relationships between teacher beliefs and practices, in regard to the coexistence of consistencies and inconsistencies (e.g., Daly et al., 2020; Davis & Sumara, 2005). As findings reveal, overall, the two lecturers, though in different ways, both embrace and resist PjBL as a Western pedagogy. Their respective drives to enact PjBL are mainly bottom-up, fuelled by individual concern for students' long-term developmental needs. Moreover, the adaptation of PjBL is not straightforward due to local conditions, such as the test culture and established approaches to teaching and learning. Such findings lend further credence to the ways in which the context functions to mediate interactions both within and beyond multiple systems, e.g., Opfer & Pedder, 2011, Yuan et al., 2018.

In this sense, a comparison of the interview and observational data in both case studies (chapters 5 and 6) leaves the impression that the relationship between lecturer accounts and practices of PjBL is complex, as with Davis and Sumara's (2005) assertion that individuals are both shaped by, and could shape, their environments. The findings in both case studies reveal that both lecturers are active agents in adapting pedagogies, and that their beliefs exert profound impacts on the ways they interpret and respond to given contextual aspects. Also, both their beliefs and practices constitute complex systems, and multiple dimensions of their belief systems interact with their teaching, e.g., their prior teaching experiences, perceptions of effective teaching and the consideration of their students.

Notably, paralleling the literature (e.g., Basturkmen, 2012; Clarke & Collins, 2007; Zellermayer & Margolin, 2005), the findings for this study reflect the fact that the lecturers' beliefs, as open, complex systems, are closely linked to their previous teaching and learning experiences. That said, they are engaged in an ongoing process of synthesising 'what works' from first-hand teaching experiences as front-line practitioners, and are absorbed in 'what is promising' from in-service learning opportunities, such as taking part in themed forums/conferences to learn the ideas from experts. Both participants attributed their enthusiasm for PjBL to the perceived

inadequacy in traditional teacher-fronted instruction. Aside from the scepticism towards the teacher-fronted instruction prevalent in Chinese HE, their complex trajectory with PjBL also indicates, to some extent, the lack of in-service pedagogical training in the focal context (see section 5.5.2).

As discussed in sections 5.5.2 and 6.6.2, lecturer belief constitutes a complex, fluid and dynamic system, interwoven with other systems. In case study one, as with Lim and Chai (2008), though the lecturer endorsed the constructivist orientation of PjBL, there was insufficient evidence of such activities in his teaching, and his instruction was predominantly traditional. Thus, lecturer experimentation with PjBL, manifesting the complex interactions between beliefs and practices, can be pinned down to two aspects; 'what seems good in theory' and 'what works on the ground'. These two aspects, triggering certain degrees of ambivalence, can be interpreted via the lens of complexity theory. Interestingly, the departmental/institutional context, more than the oft-cited hindrance to teachers' putting beliefs wholesale into practice, constitutes part of the lecturers' belief systems and navigates their PjBL adaptation accordingly. The lecturers, as capable and active agents, are in the position of infusing the contextual aspects into their pedagogical practices in a pragmatic manner.

Echoing Buehl and Beck (2015), the findings for this study speak to the inherent nature of lecturer practices and their interplay with multiple contextual aspects. Firstly, both the lecturers' PjBL adaptation is complex in nature, replete with conflicts and uncertainties (see sections 5.5.3 and 6.6.3), especially in relation to the extent to which PjBL is embedded in their instruction and how PjBL-relevant activities are implemented under classroom circumstances. They have borrowed methods of PjBL instruction from multiple resources, e.g., expert advice and established PjBL principles by theorists, which are later susceptible to their interpretations of the PjBL approach and its applicability to their instructional contexts.

Intimately linked to the adaptation of PjBL as complex are the possibilities for, and constraints on, PjBL application in Chinese HE, and that often compromises have to be made by lecturers as agentive individuals, between the cultivation of students'

transferable competence beyond the narrow objectives of disciplinary learning, and the completion of instructional aims (see sections 5.5.2.1 and 6.6.2.1).

Four aspects may have motivated their enthusiasm in PjBL implementation in the first place, namely (i) the possibility of experimenting with PjBL within their allowed sphere of autonomy in pedagogical innovation; (ii) the belief in the pedagogical potential of PjBL in promoting student disciplinary learning and development of transferable competence; (iii) the perceived inefficiency of traditional, teacher-centric instruction in preparing students for a highly competitive job market and (iv) the recognition of PjBL as a promising pedagogy by some home scholars. Yet, on the other hand, the factors below appear as major obstacles to PjBL implementation, which partially resonates with the literature, e.g., Wang et al., 2023, namely suspicion of the efficiency of PjBL deriving from unfamiliarity with such an approach, the extra investment of time and energy by the lecturers to effectively support student project work, the pressure to produce immediate results, summative assessment, lecturers' perceived student incompetence in English and low motivation in partaking in PjBL-based activities (see section 6.6.2.2). What is intriguing here is how some aspects appear in both case studies, while others may be present in only one case study.

Among all such influencing factors, enhancing student transferable competence for developmental needs appears to be essential in lecturers' endorsement of PjBL in both case studies. Analysis reveals that the perceived link between PjBL and student job-readiness has exclusively motivated Dave to implement PjBL. Concurrently, the aspects perceived as constraints on PjBL implementation are inter-related, especially in case study one, where Dave frequently voiced his concerns regarding students' inadequate competence and motivation, which necessitated investing more time, and self-directed learning on his part, thus posing challenges in covering the stated aims delineated in the module teaching plan. He was thus somehow dubious about the effectiveness of PjBL (see section 5.5.2). Grace, by contrast, seems to be largely positive about PjBL implementation, while still recognising the extra time investment as a significant challenge to her PjBL implementation (see section 6.6.2). Such

reported constraints highlight the complexity of PjBL in the Chinese HE context, and such complexity, based on the findings, was acknowledged by both lecturers.

Both lecturers recognised the most prominent instructional potential of PjBL as its cultivation of learner transferable skills alongside acquisition of disciplinary knowledge, making it superior to traditional, didactic instructional approaches with narrow focuses on delivery of prescribed content. However, they maintain their own individual interpretations of the learner-centric aspect of PjBL, as evidenced by their granting of limited learner autonomy in the design, implementation and presentation of projects. Paradoxically, in both case studies the struggles of implementing PjBL can be attributable to the lecturer perception of student learning needs, namely their over-reliance on, and long-term familiarity with, direct lecturer instruction. Such needs can be further dividable into more accurate needs, e.g., Dave's highlighting of inadequate learner proficiency in English as the target language, and Grace's attempts to support learners in applying AntConc as a research tool.

The findings indicate that the pedagogical potential of PjBL as an alternative to traditional teacher-centric instruction was recognised by both participants, despite their varied perceptions of the constructs of PjBL and its suitability to their instructional contexts. However, the pragmatic benefits of PjBL in enhancing learner development of transferable skills/competence, often in the form of job-readiness, are perceived to be compatible with one suggested goal for HE; that of preparing learners adequately for a changing society (e.g., Chu et al., 2017) via knowledge construction in authentic contexts (e.g., Rahman et al., 2022).

7.6.2 Mediating role of the context in lecturer beliefs and practices

The complex relationship between lecturers' beliefs and PjBL practices can be better appreciated from the lens of the cultural script for teaching. Specifically, what seems relatively under-explored is the epistemological basis for cultural views that modulate adaptation of PjBL as one Western pedagogy. The cultural script points to the tacitly embedded beliefs and values underlying the structure of the lesson, its major

constructs and patterns of lecturer-student interaction.

The above justifications point to the need for recognising lecturer agency and cultural awareness in adapting an innovative pedagogy like PjBL. Such awareness performs a significant role for lecturers in tailoring PjBL to their instructional contexts so as to maxmise instructional efficiency with PjBL. Such attempt at 'tailoring' suggests the features of what Holliday (1994) proposes as an 'appropriate methodology'; that the adaptation of a given instructional methodology marks an ongoing process involving the incorporation of 'how to teach' and 'what to teach' (p.164).

This eclectic approach gives rise to the question as to what instructional practices or activities are genuinely PjBL, given its somewhat loose definition in the literature. The eclectic approach, likewise, can be attributed to the perceived constraints of implementing PjBL wholesale by the lecturers. As in case study one, the predominance of such an approach suggests the prevalence of imitation and drill practice as fundamental instructional practices, as reflected in the institutional/departmental cultural scripts for teaching (see section 5.4). The practice of such an eclectic approach was mostly revealed and observed with regard to the setting and completion of projects. Paralleling Dave's assertion that PjBL must be adapted to be pedagogically effective, his practices highlighted a variety of activities which deviated from genuine PjBL in that Dave retained strict control over both the form and procedures of student projects. Intriguingly, at the same time he claimed that the main purpose of using such activities was to enhance student development of transferable competence, and particularly job-readiness, which parallels the original aim of PjBL.

Furthermore, it was also noted that underneath such issues were Dave's worries regarding the inadequate competence in English and learning motivation of his students, and his instructional efficiency (e.g., the time and energy required for self-directed learning of PjBL, for supporting student PjBL work and arrangement of workable projects). More notably, the emerging perceptions that PjBL can be seen as partially contradictory to Confucianism were in line with the arguments made by Hu

(2002) that cultural resistance could be a key obstacle to implementation of Western pedagogy in the Chinese context. To illustrate, based on insights from Dave, that the constraints of PjBL enactment in his instructional context can be categorised into technical aspects (e.g., student lack of competence in English and demotivation in learning) and implicitly cultural aspects (e.g., uncertainties triggered by the need to allow for more student voice and choice.

Concurrently, inquiring into Dave's professed beliefs indicated the profound impacts of behaviourist ideas of habit formation, imitation and the linear process of knowledge acquisition. Such beliefs, associated with his beliefs about subject learning, seemed to pre-condition his subsequent practices of PjBL. It was also observed that imitation and drilling practices were still used on a frequent basis in classroom teaching in case study one. As a result, the enactment of an 'eclectic approach' exemplifies the complex interplay between the multiple aspects within Dave's belief system. That said, constructivism as the epistemological underpinning of PjBL did not reshape Dave's educational beliefs in linear ways; the interplay between Dave's beliefs, constructivitism, his perceptions of PjBL and the instructional context engendered tensions that led to the enactment of an eclectic approach.

Both lecturers tended to view the suitability of PjBL to the Chinese HE context in an eclectic light. That said, they identified the significance of their knowledge of the PjBL approach and proficiency in flexible, pluralistic teaching, responsive to the needs of students in a highly volatile context. Such eclectic perception lends credence to the participants' recognition of the intimate link between pedagogy and context. This seems to support teaching as a cultural activity (e.g., Stigler & Hiebert, 1999) and one feature of pedagogy as being amenable to contexts.

Such findings are in line with previous arguments that teachers are agentive, knowing decision makers (Elbaz, 1983; Borg, 2006). The discussion highlights the fact that the two research participants' enactment of PjBL as a bottom-up endeavour comes from their individual willingness to innovate pedagogy, somehow deviating from their

situated cultural scripts for teaching where knowledge transmission outweighs competence cultivation. In so doing they are actively interpreting the potential constraints on PjBL implementation within their situated contexts, e.g., students, their instructional tasks and other non-teaching issues (see sections 5.5.2 and 6.6.2).

Also, analysis of data from sections 5.5.2 and 6.6.2 reveal that the lecturers' belief system consists of a set of pedagogical preferences to guide their instruction (e.g., the emphasis on lecturer control of classroom activities, and that they have developed a personal repertoire of pedagogical practices, e.g. demonstration to suit their pedagogical preferences. Yet, the interplay between their pedagogical preferences and practices are complex; Dave claimed to recognise PjBL's potential in boosting learner participation, yet he clung to drilling activities in most cases.

Comparing the initial discussions in chapter 5 and 6, some conclusions concerning teacher beliefs can be made as below:

1) The concept of teacher beliefs can be understood as a complex system from the lens of Complexity Theory.
2) There are multiple, interactive aspects within the system of teacher beliefs, e.g., ways to teach the discipline, how students learn and their roles of themselves and of students. Having interpreted the context, such aspects were further grouped by lecturers into the categories of 'what seems promising' and 'what works', with the latter being more fitting and durable when applied to their situated context, namely the institutional/departmental cultural scripts for teaching. As such, both lecturers' beliefs are contextually bounded and sensitive, and their practices are pragmatically oriented towards coverage of stated instructional aims and objectives.
3) In adding to the literature, the study shows that context mediates the complex interplays between the various aspects of teachers' belief systems, which subsequently feed into their actual practices of PjBL.

7.6.3 Lecturer beliefs, practices and the context: combining Complexity Theory and Cultural Scripts for Teaching

The instructional preferences at institutional /departmental levels are partially shaped by the context, which comprises a myriad of aspects. This study looks explicitly at the collective norms and beliefs by faculty members as an integral aspect of the context that situates the adaptation of PjBL by two individual lecturers. To dig deeper into the two RQs, the study combines the analytic powers of Cultural Scripts for Teaching and Complexity Theory, to place the systems of lecturer beliefs and practices in the institutional and, more prominently, departmental contexts. Such systems are mainly manifested in the beliefs about how to teach and the roles of students and teachers in such a process. In so doing, insights were facilitated into the lecturers' adaptation of PjBL as firstly a complex process in relation to the systems in whichk it was embedded, and secondly, as a context-relevant, cultural activity to be investigated in relation to the surrounding cultural script for teaching.

7.6.3.1 The institutional-/ departmental -level cultural scripts for teaching

In this study, neither lecturers worked in full isolation, nor did they have control over the modules they delivered, and they were held accountable for instructional aims and objectives partially established by a prescribed syllabus beyond their classroom settings. As with previous studies (e.g., Burns, 1996; Fullan, 2007; Holliday, 1994), the data in this study points to the pronounced role of context in influencing teaching and learning, particularly in mediating the interplay between lecturer beliefs and practices. The layered context of macro, micro and meso are relevant here, with focuses on the impact at the meso-level of contexts - namely the lecturers' situated departments - on their practices. The cultural scripts for teaching at the department - an essential aspect of the context - comprised a set of tacit beliefs and assumptions which have worked effectively enough to be deemed valid and, therefore, have been shared among faculty members as the proper way to teach.

The alignments between the lecturers' beliefs and the department-level cultural scripts for teaching indicate that their beliefs are not developed or maintained in isolation, but are instead affected by the departmental contexts in which they work and the given cultural scripts for teaching implicitly embedded in such contexts. Similarly noteworthy in the two case studies was the extent to which the constructivist beliefs and practices underlying PjBL were more desirable, especially in relation to the departmental-level cultural scripts for teaching which rendered such beliefs or practices unnecessary.

7.6.3.2 Lecturer belief as adaptive to the context

Building upon Complexity Theory, the adaptive function of lecturers' belief systems in this study becomes discernable. As reflected by the two lecturers' different enactments of PjBL, e.g., ways to support student project work, their practices highlighted their attempts to respond to, and reconcile, multiple contextual aspects. In other words, their instructional practices were highly context-relevant and responsive, interacting with layers of contexts, e.g., the classroom, the department/institution and national education policy; and also different agents within, e.g., the students, other lecturers and departmental/institutional managers. Such interactions added to the complexity of their belief systems.

It then becomes pertinent to note that Complexity Theory views context as part of teachers' belief system, and that the two co-exist with each other (Larsen-Freeman & Cameron, 2008); that said, their belief systems as open systems are simultaneously affected by, and could affect, the context. Nevertheless, context demonstrates far more stability, for it involves many more agents than the lecturers alone, and ensured that the lecturers possessed limited opportunities for autonomy. In further consideration of the study's concentration on lecturers, the data gathered is inevitably too limited to portray how lecturer beliefs affect the contexts. It should, therefore, be stressed that this section considers the ways in which the interplay between lecturer beliefs and instructional practices were adapted by different layers of context.

Chapter 2 considers the broader context of Chinese HE, discussing its shifting paradigms and the most recent discussion on forms of instruction. Education has always been at the core of social concern and discussion, with a hierarchical education system and considerable disparities at a local level. Chinese HE is responsive to political propaganda and workplace requirements, in order to cultivate capable individuals. This necessitates pedagogical innovations to enhance student employability and adaptability to a changing environment, with a wider range of transferable competences. Thus, a set of Western pedagogies both gained momentum, and received local criticism, amid the quickening pace of internationalisation and globalisation in Chinese HE (section 2.6.2.1). Also illustrated is the longitudinal debate between the suitability of teacher-centred and learner-centred pedagogy in serving the dynamic goals of Chinese HE. The investigation also speaks to the preferences and conflicts surrounding the learner-centred aspects of PjBL at the local level.

An introduction to the institutional contexts of both case studies is included at the beinning of both case studies, with a focus on their instructional aims and objectives in relation to their types and overall rankings. Such aspects parallel the overriding concerns of their managers and lecturers, contributing to the situatedness of PjBL in the two case studies.

The proceeding discussion in chapter 5 and 6 shed empirical light on the situatedness of PjBL by considering the complex, non-linear relationship between the lecturers' perceptions of PjBL embedded in their broader education beliefs, and their in-situ practice of PjBL. Such misalignments correspond with Gao's (2021a) highlighting of the complex nature of teacher beliefs, and also their ongoing sensemaking of the possibilities and constraints within the contexts. Sections 5.5.2 and 6.6.2 delve deeper into the complexities inherent to their belief systems and the interplay between what is theoretically recommended and what works on the ground. The latter, often beyond the control of individual lecturers, is contextually relevant and more profoundly navigates their adaptation of PjBL.

Overall, the findings indicate that the competence and needs of Chinese undergraduates were given priority by lecturers during their enactment with PjBL, thus, to a great degree, demonstrating the recognition of PjBL's potential in achieving learner- and ability-centredness (Muchlis et al., 2023). The profound role of contextual aspects and the necessity of adapting PjBL accordingly were identified by both lecturers. Therefore, their efforts to adjust their instructional approaches as a response to the prescribed instructional aims/objectives and challenges of Chinese HE and the developmental needs of learners illustrate their concerns concerning the suitability of PjBL in light of their interpretations of the local contexts. Subsequently, their clinging to an eclectic approach, as previously observed, suggests their agency in tailoring PjBL. In other words, instead of restricting themselves to following a given instructional method like PjBL, they assumed an active role to instead gear PjBL towards contextual aspects.

Consistent with the literature, e.g., Cheng et al., 2025, Daly et al., 2020, as evidenced by the lecturers' indvidualised adaptations of PjBL in this study, some of their espoused beliefs were not congruent with their teaching. Such mismatches simultaneously stem from the complex interplay, and sometimes conflicts, between the different layers of culture.

For example, the act of implementing PjBL seems to conflict the classroom culture (e.g. learner as mere recipients, rather than constructors of knowledge), the departmental/institutional culture (e.g. stronger emphasis on assessable, materialistic ends like pursuing research outputs and higher ranking), and more broadly the national culture of education (e.g. teachers as transmitters of knowledge and authorities within the education process). Thus, PjBL is destined to trigger some discomfort in the local context, given its theoretical roots in constructivism, which suggests an epistemological shift from the lecturer as transmitters to facilitators (especially in case study one), coupled with the conflicts between PjBL-based teaching/learning activities and the didactic instruction the lecturers were used to. The discussion illuminates the ways lecturers' beliefs are shaped by national, departmental

and classroom culture, and how they endeavoured to strike a subtle balance between their habitual and PjBL-based practices. Interestingly, rather than changing the system of their practice, the two lecturers modified and adapted PjBL to fit within their pre-existing systems of practice, and also of their beliefs in relation to the context.

In acknowledging the mediating function of the context, the impact of national culture on lecturers' beliefs and practices is profound. Analysis of data from sections 5.5.2 and 6.6.2 showcases that overall, the lecturers held beliefs consistent with the Chinese cultural script of teaching, namely the teacher as dominant in the classroom, and learning necessitating drilling and repetition. However, there is also evidence that the participants' interpretation of their roles is more sophisticated than is reported in the literature (e.g. lecturers as mere transmitters of knowledge). The discrepancies between the lecturers' beliefs and subsequent PjBL practices, additionally, can therefore be attributed to an array of contextual, pragmatic aspects, e.g. examination pressure, learner demotivation and limited availability of resources - all of which obstructed more holistic PjBL implementation. A closer look into the cultural scripts for teaching at the institutional/departmental level has enabled more in-depth sensemaking of the lecturers' beliefs and practices with PjBL. Clearly, the process is highly flexible as PjBL undergoes local re-interpretation at the intersection of macro context, largely featuring didactic teaching, and the micro context comprising multiple local particulars. In other words, both lecturers are in the position of reconciling multiple contextual aspects from the macro, national context, the meso-level departmental context and the micro context of their classrooms. Additionally, the complexity inherent in their PjBL adaptation can be appreciated more exhaustively at the meso- and micro-level (e.g., the departmental and classroom).

In line with Borg's (2006, p.107) assertion that instructional practices are defined via complex interactions among teacher's cognitions and situational aspects, both within the classroom and the broader institutional and social context, in this study, the relationship between institutional/departmental contexts reflected in cultural scripts for teaching and PjBL implementation is illustrated in the discussion. This is

particularly pertinent to the different perceptions and enactments of PjBL between the lecturer from the pre-service K-12 teacher college and the lecturer from research-intensive university, in that the former has anticipated and encountered more contextual constraints than the latter, with regard to student low motivation in project work and English competence. The lecturer from the research-intensive university, on the other hand, took a more active stand towards PjBL implementation, with a more comprehensive knowledge of supporting student project work.

The classroom context

In firstly attending to the classroom as the 'micro context' where teaching and learning took place, the interview and observational data uncovered the three main sets of contextual aspects in classroom settings, which interacted with lecturers' belief systems. The former, according to their interview accounts, involves their prior knowledge and experiences of teaching, which significantly impacted how they translated their beliefs into practice. The lack of such prior knowledge and teaching experience was a hindrance to PjBL enactment, as reflected in Dave's oft-reported confusions in case study one, and his adaptation of PjBL in response to such hindrances. To illustrate, when unsure of the forms of projects, Dave resorted to a teaching plan in prescribed form, relying heavily on drilling practices for consolidating learner subject knowledge. Grace, in comparison, adopted a different path by including student voice and choice in the project setting and implementation. Though in both case studies the projects were loaded with teacher-centric lecturing, it seemed that the uncertainty with PjBL fuelled Dave's use of drilling as the most familiar practice. Hence, the lecturers' perceptions of themselves, in the form of their pedagogical knowledge of PjBL, affected their instructional practices in relation to PjBL.

Meanwhile, what seemed crucial in stimulating and guiding their PjBL practices, according to both lecturers, were learner aspects, e.g., competence in English, motivation, responses and developmental needs, among which developmental needs and student responses were most frequently mentioned in lecturers' interview

accounts. This was in line with subsequent observations, where relevance between the project work and development of transferable skills were frequently mentioned by both lecturers. Additionally, teaching was adjusted based on student responses, e.g., question, silence or non-participation in classroom activities, as Dave switched to a more didactic form of teaching in project discussion with student groups. For example, when noticing the low standard of student project work and student demotivation, using comprehension-check questions and task clarification seemed to fulfil an instructional function by ensuring the efficiency of project discussion within limited time. This also parallels Dave's justification of his somewhat dominant role in student project work. Since such belief was further consolidated by students' showing signs of demotivation and confusion, Dave's clinging to teacher-centric over student-centric teaching in classroom observations became predictable. As a result, then, the repetition of one given contextual aspect seemed to propel lecturers' formulation of routine practices, and especially more teacher-centric instruction in reaction to the students' negative responses. As a result, in prioritising completion of instructional objectives, such instruction was preferred over PjBL.

Closely linked to the aforementioned aspects were contextual aspects, among which time constraints were both mentioned and observed to preclude enactment of PjBL. This was evident in both case studies, where extra-curriculum sessions were conducted to check and support student work, and to allay Dave's worries regarding time pressure affecting the completion of the teaching plan. Concurrently, teacher-centric activities, demonstration and omission of student discussion seemed to be the most prevalent strategies used in coping with time constraints. For example, Dave was observed several times hurrying to direct instruction for student project work, and drew the attention of the whole class to some general issues in project work during discussion sessions. Such practices contradict those proposed by PjBL, e.g., student-centredness, pair work, voice and choice.

It could also be inferred that there existed a dilemma between following the principles of PjBL and achievement of assessable, quantifiable instructional outcomes, often

with respect to coverage of aims in the teaching plan and student performance in examinations. Subsequently, some PjBL tenets, e.g., student voice and choice, student group work and discussion, were deemed time-consuming and replaced by teacher-centric instruction. Therefore, time constraints presented a significant contextual aspect which exacerbated the complexity of interplay between lecturer beliefs and the classroom setting.

The departmental/institutional context

This study investigates the situatedness of PjBL in one pre-service teacher college and one comprehensive, research-intensive university in the same province. The two HEIs were considerably different, with aspects to overall ranking, recourses and administrative requirements, all of which seemed to feed into the lecturers' beliefs and practices. Thus, the two lecturers' different approaches to PjBL adaptation are in acordance with previous studies (e.g., Chant, 2009; Levin et al., 2013; Ravitz, 2010) showing that PjBL implementation is affected by school contextual aspects over which individual teachers have little control; for instance school culture, and that differences in instructional contexts influence beliefs, specifically in regard to implementing beliefs in practice.

Firstly, given the absence of prescribed ways of instruction in both institutions, lecturers' interpretations of such contexts mattered in their motivation in, and approaches to, innovating pedagogy. The emphasis on fulfilling instructional tasks, coupled with personal developmental needs in disseminating research for academic title accreditation seemed pronounced in both case studies and, as a result, was embodied in departmental/institutional level cultural scripts for teaching, mainly taking the form of teacher-centric lecturing and the fostering of student employability. It can therefore be inferred that such scripts impacted individual lecturers' practices via their reflection, and the interplay between such scripts and lecturers' beliefs were complex. That said, in both case studies, while the prevalence of didactic teaching contradicted their beliefs in the ways in which to teach the subject, the emphasis on student job-readiness, at the same time, motivated them to explore and implement

PjBL as a potentially fruitful alternative. Their PjBL enactment was replete with harmonies and tension as their teaching was both facilitated and hindered by such scripts.

As case study one illustrated, while claiming autonomy in applying instructional methods according to personal preferences, Dave frequently referred to himself as 'lonely' in innovating pedagogies and attached importance to self-directed learning to grasp the fundamentals of PjBL. This aligns with studies (e.g., Marx et al., 2004) that PjBL implementation would be facilitated when encouraged by school leadership and in accordance with school culture. Also conveyed were the departmental/institutional focuses on producing immediate results towards materialistic ends, e.g., higher ranking for funding opportunities, rather than pedagogical innovation. He then understood it to be implicit in his role as a lecturer to take the initiative in innovating pedagogy, and ascribed his inability to put the preferences of constructivist teaching into practice to his instructional context, where a lack of resources and support for pedagogical innovation was perceived. This contrasted with the other lecturer from the same module group, namely Nina, whose inclination was to teach in a fixed way so as to save more time for professional development. Hence, the institutional/departmental cultural scripts for teaching were interpreted differently by faculty members at an individual level. It could be revealed that the lecturers' perceptions of such scripts guided their responses to such scripts in terms of personal pedagogical preferences and choices. That said, the scripts acting as the context interacted with the lecturers' beliefs and practices, on the basis of lecturers' interpretations of the context, which also mediated the ways beliefs were translated into practice. Comparatively, in case study two, Grace's adaptation of PjBL aligned with the local cultural scripts for teaching as boosting student proficiency in academic research. She therefore expressed the importance of exposing students to the particulars of research at an early stage, using the module 'English Lexicology' as a conduit. Consequently, the differences in Dave and Grace's beliefs appeared to be connected to their department/institutions as situational contexts and classrooms as teaching contexts.

Additionally, what emerged as crucial in both lecturers' stated conflicts in pedagogical innovation lies in the prescribed ways of assessment, within which a core aspect was quantifiable results, e.g. student examination scores. As discussed in case study two, Grace gave equal weight to student project outcomes and a final examination for module assessment. The inclusion of student examination performance as one significant instruction aim was more evident in case study one, as Dave saw it appropriate to infuse certain elements of didactic teaching to enable student's acceptable examination performance and adapted PjBL accordingly.

Another key finding which emerged was that the narrow focus of academic accreditation on lecturers' research outputs has forestalled their motivation in pedagogical innovation. This was further exacerbated by the fact that freedom for professional development varied significantly at an institutional level. Though in both case studies, the existence of module groups facilitated peer discussion of module teaching plans, and demonstration classes contributed to the lecturer's teaching repertoire, what seemed to be missing was a comprehensive set of in-service training programmes designed to systematically inform and guide the lecturers in learning, devising and practising other ways of instruction. Such phenomenon can be partially ascribed to the marketisation and internationalisation of Chinese HE (see section 2.6.2.1), which, coupled with a zeal for higher global ranking, will be discussed in more in detail in the following section.

The national policy context

In further consideration of the mediating role of the context on teaching, the concept of cultural script is pertinent (Hargreaves, 2012). I have considered the multiple layers of culture (national-level as the macro and classroom-level as the micro) and the dominating cultural script of learning in China (see chapter 2). In so doing, the recurrent complex interplay between lecturer beliefs and practices can be better captured in relation to the given contextual aspects, as confirmed in the discussion of the institutional/departmental culture (sections 5.2 and 6.2). As demonstrated,

individual lecturers both contributed to, and were shaped by, their departments and institutions which, in conjunction with their situated module groups, can affect their beliefs and practices. They were allowed considerable freedom for agency and autonomy in pedagogical innovation (e.g. Dave's personal choice of implementing PjBL) and were able to discuss the pedagogy with colleagues with similar beliefs or values (e.g., the potential pathways of boosting instructional outcomes and the pressure of publicising research). Such actions can be viewed from the perspective of cultural scrip; that is, despite the variances within lecturers' beliefs of, and approaches to teaching, they are guided by given shared beliefs and taken-for-granted practices subconsciously, at the departmental of institutional levels.

In this study, PjBL adaptation by lecturers is situated in the context of Chinese HE, with regard to its HE policy and cultural scripts for teaching. Firstly, it can be understood that the lecturers were aware of the conflicts between the instructional focus of PjBL on promoting learner comprehensive competence and transferable skills via engaging them in constructive investigation, and assessment protocols comprising a considerable number of summative examinations. Indeed, examination has been referred to as the most prominent feature of China's education system (Yin, 2015), which naturally directed departmental/institutional attention to student examination results. Deductively, in attempting pedagogical innovation, such as implementing PjBL as a Western pedagogy, the lecturers face tensions between two cultures of learning, namely content mastery via repetitive practices and learner construction of new knowledge. Subsequently, they were in a constant process of reconciling such tensions while adapting aspects of PjBL under the pressure of summative assessment requirements.

Therefore, the form of constructivist learning advocated by PjBL is misaligned with the didactic instructional culture of learning in Chinese HE. The indigenous culture of learning exerts significant impacts on lecturers' PjBL adaptation, and they sometimes reverted to traditional behaviourist, teacher-fronted instruction; for example, Dave was observed asking the whole class to imitate examples of teaching. It seemed that

such practice, as rooted in the local scripts for teaching, triumphed over the constructivist epistemology of PjBL in guiding his instructional practices; in other words, the adaptation of PjBL which takes the form of juxtapositing the two ways of teaching stems from the conflicts between the two epistemologies, e.g., behaviourist vs. constructivist teaching, with the former being deeper-rooted and more influential.

7.7 Co-adaptation between lecturer beliefs and the context

7.7.1 Co-adaptivity of teacher beliefs

CT recognises the co-adaptation between teacher beliefs and contexts (e.g., Larsen-Freeman & Cameron, 2008), in that teacher beliefs are both shaped by and could shape the context. This study however produced limited evidence of such co-adaptation in the Chinese context, as the contexts seem to be way more stable and the lecturers are granted limited space of autonomy in changing the contexts, especially the national context at the macro level. Echoing Borg (2006) that contextual aspects exert profound impacts on the degree to which teachers are able to enact instruction congruent with their cognitions, this study acknowledges the inherent complexity of lecturers' belief systems, and the complex interplay between lecturers' beliefs and practices as mediated by the context, thus producing further insights into teacher beliefs as simultaneously co-adaptive systems, susceptible to given contextual aspects. Such significance of context in contributing to the complex interplay between aspects of teachers' belief systems was addressed in previous research (e.g., Bailey, 1996; Šapkova, 2014; Yu et al., 2020) on the mismatches between teacher practices and their teaching plans. Moreover, as with Larsen-Freeman & Cameron, 2008), in acknowledging the mediating role of contexts, this study has illuminated the interplay between multiple layers of the context and lecturers' beliefs, and that specific contextual aspects shaped the ways the lecturers' beliefs were translated into subsequent practices. Such aspects can be categorised into national (e.g., Confucianism as the underpinning epistemology for Chinese education, the stipulated focus by MoE in cultivating capable graduates with 21st century competence), institutional/departmental (e.g., instructional emphasis on student job-readiness and

comprehensive competence), and personal (e.g., individual lecturers' sensemaking of student needs, and their personal developmental needs).

The profound impact of the context was also stressed in the analysis of the interplays between the lecturer's beliefs, practices and context, as seen in section 7.6.3. Complexity theory, therefore, offers a robust perspective with which to tap into the ways contextual aspects triumphed over given established tenets of PjBL in guiding lecturers' favour of an eclectic approach. That is to say, the lecturers' belief systems are both constructed and constrained by the context which, in light of complexity theory, constitutes an integral component of the lecturers' construction and enactment of their educational beliefs, as opposed to external forces. Subsequently, the lecturers' beliefs co-existed with their context and were mutually inclusive. Notably, sometimes such co-adaption could work counter-productively, especially given Dave's refraining from innovative, student-centric PjBL practice and adopting traditional, teacher-centric lecturing due to time constraints and the pressure for textbook coverage. Therefore, his compromises in response to such pressures hampered his enactment of the constructivism aspects of PjBL. Such compromises to local contexts present "the foundation for emergent change, i.e., development, on a longer timescale" (Larsen-Freeman & Cameron 2008, p. 239).

This study has reflected on the situatedness of PjBL as one Western pedagogy in Chinese HE, particularly bringing to the fore how PjBL was adapted by two Chinese lecturers against the background of the current focus on enhancing student 21st competence in Chinese HE. The two lecturers were admittedly 'lonely' in their practicing PjBL as a form of pedagogical innovation, and their enactment of PjBL was subject to constant re-adaptation in order to be pedagogically effective. Such a process characterises the lecturers' interactions with their context. To illustrate, Grace adapted project discussion with students on-line as a response to the then current conditions of the pandemic, and Dave ran two extra tutorials with student projects upon realisation of the latter's struggle. From the perspective of CT, then, the adaptations were noticed and an observation was made on the interplay between the

lecturers as agentive individuals and their context. It was also observed that the context would produce mixed impacts on their pedagogical innovations. That is, what was at the core were the lecturers' interactions with the context that reconstructed their belief systems and navigated the ways they responded to stimulus and hindrances from said context.

This study so far provides ample evidence of the profound impacts of the context on lecturers' beliefs and the ways they were translated into pedagogical practice. By contrast, the impacts of the lecturers' beliefs on the context were far less discernable, as the contexts comprise a set of shared, relatively stable cultures. Though granted considerable freedom for autonomy in pedagogical innovation as a pre-condition for practising PjBL, both lecturers expressed concerns regarding the completion of prescribed instructional aims and a lack of time in balancing teaching and dissemination of research. Such concerns were woven into the institutional/departmental cultural script for teaching, alongside a prioritisation of student employability, the obtaining of resources and the overall higher ranking of the institution. Building upon CT, all such concerns add to the complexity and interconnectedness of lecturers' belief systems, thus identifying pedagogical innovation as a contextually sensitive, complex act.

7.7.2 Stability of lecturer beliefs

In depicting lecturer belief as complex systems, its innate stability represents another notable feature. In line with Schraw and Olafson (2002), this study proves that given aspects of lecturer beliefs did not change according to the tenets of PjBL. That is to say, in case study one Dave's beliefs in the students' lack of competence and motivation clashed with that of PjBL in seeing learners as constructors of new knowledge, showing levels of stability regardless of different groups of students. This supports previous research (e.g., Kagan, 1992; Putnam & Borko, 1997; Richardson, 2003) which acknowledges that teacher beliefs are resistant, or at least difficult, to change, and that by Schraw and Sinatra (2004) on the stability of teachers' epistemological beliefs in what counts as the knowledge for teaching.

In summary, a few key points can be made in this section.

Firstly, both lecturers' beliefs and practices are situated and contextually bound. Their practices stem from their interpretations of the possibilities and constraints in the contexts.

Also, there exists an interwoven relationship between lecturer beliefs, practice and contexts. Teaching as a cultural activity can be appreciated from the perspective of cultural scripts for teaching at an institutional/departmental level. That said, lecturers share given beliefs and practices because of their similar culture, alongside their individual beliefs and practices.

Thirdly, the institutional/departmental cultural scripts for teaching offer generic angles with which to examine individual lecturers' beliefs and practices. Yet, as agentive and autonomous individuals, lecturers might hold individual beliefs and practices and thus deviate from their situated culture. This is the case with their experimenting with PjBL as a relatively innovative pedagogy, which brought some conflicting epistemologies to their culture and fuelled new possibilities, as well as constraints, for their beliefs and practices.

Fourthly, lecturer beliefs and practices are highly responsive to their situated contexts and, more specifically, institutional/departmental cultural scripts for teaching at the local level. However, the impact of the macro, Chinese teaching culture is also pronounced. The complex, interwoven relationships between beliefs, practices and context can be better examined by attending to both macro cultures and the locality. It is therefore more accurate to depict the adaptation of PjBL in Chinese HE not as the outcome of wholesale educational borrowing from 'the West', but rather as the result of an ongoing, complex process of adoption, adaptation and assimilation of the 'Western' tenets within PjBL into the local contexts and cultures.

To illustrate, from the lens of cultural scripts for teaching, the lecturers' subconscious adherence to lecturer-centric pedagogic practices can be ascribed to the long-term dominance of such pedagogy in China as indispensable for quality teaching. Such

pedagogy stresses teacher planning, orchestrating and monitoring classroom-based activities that ensure the teacher's control and student engagement throughout the learning process (Choo, 2020).

The epistemological basis of the teacher as the transmitter and exemplar of knowledge, coupled with a view of knowledge as residing in the canon and acquired through systematic censorship, justifies the dominant role of teachers in modern Chinese classrooms. For all the seemingly mounting enthusiasm and endorsement of PjBL as student-centric instruction in China, the two case studies illustrate that what happens on the ground is not a complete shift from teacher-centredness to learner-centredness, but instead a continuing tendency towards didactic instruction in concert with some aspects of PjBL. Such observed predilection for eclectic teaching echoes the lecturers' professed doubts of the suitability of PjBL in China's context and their concerns relating to student competence and examination pressure. That said, the lecturers are critically reflective when tailoring PjBL in their situated contexts. Simultaneously, their eclectic approach noted in the observation is pronounced, implying that they have not embraced PjBL wholesale as a relatively innovative, learner-centric pedagogy or, indeed, its underpinning Western theories of constructivism. Rather, they have re-interpreted and situated such Western pedagogy, alongside its epistemological constructs, into the local ontology based on their Chinese beliefs.

7.8 Conclusion

The study furnishes a context-sensitive perspective to delve into the complexities of enacting PjBL as a Western pedagogy in Chinese HE. Overall, the findings generated respond well to the research questions, and contribute to addressing the existing research gaps identified in the literature review, which indicates a need to delve into the lecturer-initiated, bottom-up adaptation of PjBL in Chinese HE, woven into the complex interplay between lecturer beliefs and practices, with context playing the mediating role. In so doing, the study builds upon lecturers' perceptions of PjBL, from the angle of the complexity of PjBL implementation at tertiary level in China,

and from the perspective of the reasons underlying the adaptation of PjBL in different institutional settings. via systematic investigation into the participants' eclectic attitudes with PjBL, e.g., its instructional potential over traditional, didactic lecturing, yet inappropriateness when put into a Chinese HE context and thus remedied by the latter, through data from interviews and observations.

Though previous research has attended to the disciplinary-specific application of PjBL (e.g., Ma, 2021; Wei, 2024; Yang, 2017) and student learning outcomes from PjBL (e.g., Sun et al., 2019; Niu, 2023), lecturer experience with PjBL and the ways the contexts interact with such experience have not been adequately addressed. This study therefore contributes to knowledge by focusing on lecturer belief as complex systems and the co-adaptation between lecturer beliefs and the multiple layers of contexts they find themselves in.

Another contribution of this study is that the findings shed empirical light on PjBL as an innovative pedagogy in Chinese HE, subject to the complex interplays between lecturer beliefs and contexts. PjBL enactment in both case studies feature substantial degrees of eclecticism, in the form of a combination of traditional, teacher-fronted lecturing and specific aspects of PjBL (see sections 5.5.3 and 6.6.3). Such 'eclecticism' was identified in some previous studies in the Chinese context (e.g., Chai et al., 2025; Grittner, 1977; Gu, 2007). Chai's (ibid.) findings are much closer to those in the present study, as being generated from the context of English major education.

In addition, echoing Dong and He (2019), the study contributes to knowledge by engendering implications for understanding the context, as both foregrounding and interacting with the lecturers' beliefs as they devise better pathways to teaching. However, in this study given layers of the context, especially meso- and macro, demonstrate way higher degrees of stability and were not malleable to individual lecturers' practices, oftentimes what happens on the ground is that compromises should be made when given PjBL-based instructional practices were seen to be misaligned with the contexts the lecturers find themselves in. It can hence be inferred

that such compromises, in the form of eclectic enactment of Western pedagogies, are also present within the wider Asian context, e.g., Japan and Korea, where individuals are aware of their limited autonomy in affecting the context.

By exploring the lecturers' perceptions of PjBL in relation to their educational beliefs, this study illustrated the degree to which the defining constructs of PjBL accorded with what the lecturers perceived as quality, effective teaching. Having specified the given constraints on PjBL implementation from the lecturers' perspectives, this study went on to explore the degree to which such claimed constraints on PjBL implementation accorded with those reported in the literature review, how such constraints were identified and addressed and the ways the complex interplay between different aspects of the lecturers' belief system could be translated into their practices with PjBL. Through observing the lecturers' actual practice with PjBL, this study attempted to reveal the degree to which the observed practices reflected the defining tenets of PjBL, and in what ways they were intended to facilitate student learning outcomes.

Also paralleling some research on the characteristics of Chinese teacher's practices (e.g., Chu & Zhu, 2022; Dai & Xia, 2024; Zheng et al., 2019), this study revealed that Chinese lecturers were in a positive position to interpret and reconcile the mismatches between PjBL and their contexts via an eclectic approach, thus situating PjBL into the realities of Chinese HE.

Taken together, the findings indicate the complexity of PjBL adaptation in Chinese HE; that said, its effectiveness, constraints and mismatches with the context were well recognised by both lecturers as research participants.

As aforementioned, the major constraints on PjBL implementation were perceived to be in relation to lecturer unfamiliarity with the PjBL approach and a set of contextual aspects, which both facilitated and constrained their putting beliefs into practice. An array of contextual aspects constituted part of the complex system of lecturer beliefs which, in turn, mediated both the complexity and enactment of lecturer beliefs; that is

to say, the institutional/department assessment protocols for lecturers in terms of student examination outcomes and lecturer research output were identified to be influential in influencing the lecturers' instructional practices. Adaptation attempts were therefore put in place to apply given aspects of their belief systems and help guide their subsequent instructional practices. As such, the instructional effectiveness can be improved. From the lens of CT on the co-adaptive feature of teacher beliefs and context, the study instead reveals that the ways lecturer beliefs shape the context were less discernable, thus pointing to their limited freedom of autonomy in changing the context. Instead, by considering the affordances and constraints within the context, they re-visited and selected aspects of their beliefs, which informed their practices, resulting in an eclectic approach.

Meanwhile, despite the differences in beliefs and practices with PjBL, the findings indicated that both lecturers were highly responsive to student learning needs. Efforts were made to balance student motivation, completion of instructional aims and objectives and module-specific project work. Their decisions on the extent to which they were to engage with PjBL are the result of their reflection on whether they could see themselves or their students benefiting from the PjBL approach, e.g., whether their instructional aims could be fulfilled and whether the students could develop comprehensive competence and obtain acceptable examination scores. Accordingly, both lecturers were pragmatic in their PjBL practices. The omission or adaptation of certain given tenets of PjBL suggest their uncertainty with the PjBL approach and, more notably, their beliefs regarding the compatibility of such tenets of PjBL. As a consequence, they teach based on what they perceive as most fitting for the contexts they find themselves in.

Chapter Eight: Conclusion

8.1 Overview of the study

This study has been concerned with the complexity of adapting Project-based Learning as a Western pedagogy, by lecturer-led, bottom-up endeavours in Chinese HE. As with Britannica (2015) and Murphy (2003) that holistic appreciation of pedagogy necessitates inclusion of the thinking and practice of educators, the study mainly draws from the perspectives of Complexity Theory to unravel the complex interplays between the lecturers' stated beliefs and actual instructional practices of PjBL, and the perspectives of Cultural Scripts for Teaching to unpick the contextual aspects surrounding such adaptation. The participants for this study mainly consist of two lecturers experimenting with PjBL. One lecturer comes from a pre-service K-12 English college and the other is from a comprehensive, research-intensive university in the same province in Southwestern China. Close attention was paid to the ways PjBL was interpreted, and the degree to which it was deemed suitable to the two HEIs as cases, highlighting potential constraints in relation to its implementation in the local context, from the lecturers' perspective. Analytic emphases were also placed on the ways PjBL was adapted by the lecturers in their instructional practices, via interviews and classroom observations. In so doing, I aimed to stress PjBL adaptation in both case studies as complex, shaped by the complexity innate to the lecturers' belief systems, the complex interplays between lecturer beliefs and practices, mediated by their situated contexts. Therefore, the situatedness of Project-Based Learning in Chinese HE can be captured.

The research design within this study utilised the strengths of a case study approach to yield rich, context-specific data relating to participants' perceptions and adaptations of PjBL as a Western pedagogy. The combination of Complexity Theory and Cultural Scripts for Teaching embraced an interpretivist paradigm to focus on lecturers' beliefs

and practices in relation to their situated contexts.

The purpose of this conclusion chapter is twofold. Firstly, it serves to reflect upon the process of undertaking this study in section 8.2, prior to reflecting on the limitations of the study regarding its sampling strategy, data analysis, and also its findings in section 8.3. Thirdly, this chapter sought to raise issues relating to significance of the study in section 8.4, and to suggest directions for future research in section 8.5.

8.2 Overall process of the study

This study was fuelled by my research interest in examining how PjBL was interpreted and enacted by Chinese HE practitioners. Such interest necessitates a qualitative tradition since it seems more fitting to examine real-life situations and experiences (Punch, 1998), coupled with a non-participatory, context-sensitive perspective: I intend to explore the degree to which PjBL was adapted in natural settings and how the context provides both affordances and hinderance to such adaptation.

The renaissance stage of this investigation comprised much extensive reading in relation to multiple topics, including teacher beliefs (e.g. Clark & Peterson, 1986; Pajares, 1992; Pintrich, 1990); teacher beliefs and practices (e.g., Lebak, 2015; Zheng, 2015), and teaching pedagogy (e.g. Nunan, 1989; Richards & Rogers, 2001). Such process gradually drew me to Zheng's (2013, 2015) and discussion on teacher beliefs as a complex system. Through further reading of Larsen-Freeman (2013), I was persuaded by CT's arguments about the complex nature of teacher beliefs. From such point I perceive lecturers as autonomous decision makers and was keen to explore the relationship between their beliefs and practices. I also began to raise beyond the dualistic epistemology of pedagogy implementation by acknowledging the mediating role of context.

Further reading of Robson (2002) and Shipman (1997) aroused my predilection for case study as my research strategy, for a holistic understanding of behaviour in natural settings and trace the construction of meaning and identity. I then began to read

intensively the scholarship regarding teacher beliefs and cognition, e.g., Elbaz, 1983. My interest in longitudinal study fuelled further readings, e.g., Acker, 1999. Linking such perspectives back to CT and cultural scripts, I became interested in the ways Chinese lecturers teach, innovate methods of instruction, and the ways such actions are affected by their situated context. In pondering the impact of the context I was interested in the concepts of 'meso-level analysis' and 'department-level cultures' by Trowler (2000). Such theories all add perspectives to my epistemology of the interconnections between teacher beliefs, practice and context.

During field work between September 2021 and July 2022, I acted as a non-participant observer in the two institutions. My prolonged involvement in the setting gradually promoted my building rapport with my research participants, based on which I was more able to collect rich data. The field work also proved to me the complexity of lecturers' work. Their adaptation of PjBL confirmed my previous thinking that lecturers are agentive individuals working within their granted space of autonomy, and within the same department/institution lecturers' motivation for pedagogical innovation varied at an individual level. I also started to capture some shared concerns and priorities among faculty members. I also realised their work was affected by the macro-national context, meso-departmental context and micro-classroom context. Viewing lecturers as agentive individuals working within 'layered' contexts stimulated my building upon CT and Cultural Scripts for Teaching for data analysis. Navigated by such perspectives, I was able to probe deeper into lecturers, their work and contexts.

8.3 Major limitations of this study

In this study, efforts were in place to ensure that the research was undertaken appropriately in order to produce findings with reliability. As has been made explicit in the description in Chapter four relating to how I make sense of the analytical approach and the ways such approach was employed. Reflections were also included in chapter four to add to the transparency of data analysis, in relation to the procedures and ways of generating and interpreting findings. Nevertheless, there are

still limitations to this research which need to be discussed.

Firstly, this study was largely informed by the literature presented the western literature, partially attributable to the limited information on the topic of pedagogy study from the domestic literature in China. An intention was thus in place to balance the domestic and western literatures when understanding the situatedness of Western pedagogy in the Chinese context. Future work on this is required.

Another limitation of this study lies in the selection of HEIs as case studies and their locations. There was one pre-service teacher college and the other research-intensive university in the same region. That said, it can be inferred that the affordances of resources and openness to pedagogical innovation are more prevalent in coastal China. Considering that both HEIs in this study were located in inland regions, it might be problematic to assume the same reality to coastal regions and hence limiting generability of the findings.

Moreover, the samples for this study were taken from one pre-service teacher college and one research-intensive university, thus merely speaking to the cases of lecturers' pedagogical innovation with PjBL in such two settings. It could then be suggested that future research taps on a wider scope of institutional settings to include lecturers in other forms of HEIs, e.g., universities of foreign languages, to better appreciate the complexity of pedagogical innovation in Chinese HE sector.

Another limitation relates to my role in conducting this study. The researchers' insights serve a profound role in qualitative inquiries, as the "human as instrument" (Lincoln & Cuba, 1985). The gathering and examination of data, therefore, were inextricably linked to my knowledge, experience, and preferences, resulting in possibilities of researcher bias. To illustrate, the interview transcripts were translated by me from Chinese into English, so were the observational notes, and such process could affect my interpretation of data. Moreover, the process of conducting this research also marked my building rapport with lecturers as research participants, and my enhanced empathy with them might be implicated in the discussion. Also, in

reducing potential harms to my participants, they were invited to identify bids of sensitive data and therefore were included in the validation process.

8.4 Significance of the study

This study has contributed to knowledge in mainly three aspects: the findings have enriched the literature of PjBL adaptation and pedagogical innovations in Chinese HE, examining the aspects of lecturer belief system from the perspective of Complexity Theory have furthered theories on teacher cognition, and the combination of Complexity Theory and cultural scripts for teaching in unraveling the complex interplays between lecturer belief, practice and context has suggested fresh, dynamic, and context-sensitive research perspectives.

8.4.1 Findings for this study

The implications discussed below reflect the concerns which emerged from investigating the experiences of lecturers' adaptation of Project-based Learning in Chinese higher education. This study builds upon Cultural Scripts for teaching and Complexity Theory to appreciate the adaptation of PjBL in Chinese HE. The findings generated for this study have added to the scholarship concerning Chinese lecturers' experiences of adapting PjBL as a form of pedagogical innovation, e.g., their perceptions of PjBL, motives for practising PjBL and classroom practices and reflections. As can be seen, despite the lecturers' overall predilection for PjBL, what happens in their classrooms does not constitute a complete shift from traditional, teacher-centredness teaching to constructive, student-centric teaching central to PjBL, but, rather, a persistent enactment of didactic teaching alongside some features of PjBL. That said, both lecturers have neither completely embraced the constructs of PjBL nor constructivism as its theoretical underpinning, but have re-interpreted and adapted such epistemologies and assimilated them into the local contexts, based on their beliefs.

This study delves into the complexity of lecturers' belief systems and the ways in which such beliefs were translated into, or contradicted with, their subsequent

practices, as situated within their departmental/institutional contexts. The study has therefore offered pertinent empirical data for educational managers in China in promoting instructional efficiency via pedagogical innovation. Additionally, the study serves a valuable addition to the literature regarding lecturer belief, especially in relation to the discrepancies between lecturer beliefs and practices. By uncovering the underlying forces for such discrepancies, it also sheds empirical light on the situatedness of PjBL as one Western pedagogy in Chinese higher education.

8.4.2 Theoretical Implications

The focus of this study on Chinese lectuers' adaptation of PjBL was based on both the depiction of the innate complexity of lecturers' belief systems, and also the ways lecturers reconcile given aspects of their beliefs with given constructs of PjBL, especially constructivism, in simultaneous consideration of aspects in their contexts. To illuminate such issues, the combination of complexity theory and cultural scripts for teaching was adopted. The former attempted to present Chinese lecturers' beliefs about learning and teaching at the tertiary level as complex systems, comprising three interconnected sub-parts, namely multiple aspects of belief and the suitability of given instructional practices in relation to contextual aspects. The latter spoke to the role of context in affecting such beliefs and the ways the beliefs were translated (or not) into practice. In light of the research findings, the study generated several theoretical contributions which could be considered for future research into lecturer belief and practice, and the adaptation of Western pedagogy in Chinese HE.

Firstly, the necessity of adopting a holistic perspective to examine lecturers' beliefs is highlighted, and that by including multiple aspects of lecturer beliefs (e.g., beliefs concerning teaching, learning and student needs) a comprehensive understanding of lecturers' belief systems can be achieved. This study has also provided insights into the interplay between lecturer belief and instructional practices in their departmental/institutional contexts.

Secondly, via the lens of Complexity Theory and cultural scripts for teaching, this

study's context can be seen as both a background to, and an integral aspect of, lecturers' belief systems. That said, in addition to initially affecting lecturers' beliefs, context also interacts with lecturer beliefs in the form of offering opportunities/hindrances to lecturers' translating beliefs into practices. In this study the context was explored at institutional and departmental levels, in the form of a dominant cultural script for teaching as generic norms. They interacted with lecturer beliefs in complex ways. It was the lecturers' involvement in, and perceptions of, the context which shaped the ways they put given aspects of beliefs into practice. In other words, the institutional/departmental level cultural script for teaching lay in the background of lecturers' belief systems, yet was made malleable by lecturers' personal beliefs and interpretations. Subsequently, it would be instructive to acknowledge both the effects of the context and personal autonomies of lecturers as agentive individuals in pedagogical innovation, and cultural scripts for teaching provide a useful reference for individual lecturers' practices.

8.4.3 Methodological Implications

The methodological strategy of this study may inform future research. Firstly, the use of Complexity Theory and cultural scripts for teaching suggests an alternative to traditional research, and this inquiry offers perspectives for combining different aspects of theory and analytic frameworks in one study for in-depth investigation.

Indeed, Complexity Theory as one conceptual framework suggests both a significant epistemological change in acknowledging the non-linearity and dynamics of lecturer beliefs as complex systems, coupled with amendments in research methods (Morrison, 2012). That said, it necessitates collection of multiple data sources to illuminate the complexity of lecturer belief systems. Specific to this study, the collection of various data, i.e., interviews, documents and observations contributed to raising it beyond the limitations of each element (Maxwell, 1996). Specifically, the complexity of lecturer belief systems is captured by juxtaposing interview and observational data which illustrate not only multiple aspects of lecturer beliefs, but also the interplay within them. Consistent with previous scholarship on the conflicts

between teachers' accounts and practices (e.g., Borg, 2006), in this study the use of an eclectic approach as a key finding has emerged, based on such a thorough, holistic understanding of lecturers' beliefs.

Hence, the analytical and methodological approach for this study allows for an interpretive framework that facilitate understandings of the complexity inherent in the adaptation of Project-based Learning in Chinese higher education, by bottom-up endeavours from lecturers. The study brings to the fore the complexity to lecturer beliefs and the complex ways it interacts with contextual aspects.

In reconsidering the use of the conceptual frameworks of the situatedness of Western pedagogies in Chinese context, research process and findings for this study utilises the combination of Cultural Scripts for teaching in unpicking the contexts, and Complexity Theory in understanding the interactions, and notably dissonances between lecturer beliefs and practices, by acknowledging their agency in interpreting, and responding to, their situated contexts. Such combination, therefore, may contribute to the formulation of an indigenous epistemology in understanding the particulars of situating Western pedagogies in the Chinese context.

8.4.4 Practical Implications

By focusing on the perceptions and instructional practices of lecturers, this study generates practical implications mainly for pre-service teacher education, in-service teacher training programmes and pedagogical innovation in the Chinese context.

8.4.4.1 Implications for pre-service teacher education

As revealed in the findings, some lecturers were demotivated to innovate pedagogy due to a perceived lack of training available in their pre-service teacher education programme (see section 5.3.2.5). Thus, it would be instructive to offer more teaching practice opportunities to pre-service teachers, so that they would confront their beliefs on a more frequent basis and be more epistemologically open to new instructional methods.

8.4.4.2 Implications for pedagogical innovation in Chinese HE

This study is situated within Chinese HE and its complex discourse of innovating pedagogy while acknowledging and preserving the local culture. The analytic focus was based on lecturers' beliefs and practices in relation to the tenets of PjBL, with the findings offering a series of implications for policymakers and HE managers.

Firstly, it should be highlighted that teaching at the tertiary level is a complex, context-sensitive action which includes a wide range of stakeholders. It would, therefore, be instructive to consider the viewpoints of multiple stakeholders as a starting point in pedagogical innovation and, specifically, to examine the beliefs of lecturers as front-line, autonomous practitioners. That said, instead of adopting a reductionist, binary epistemology of simply advocating a given pedagogy as advanced or outmoded via top-down research, a workable alternative would be to look into the beliefs and practices by lecturers in a bottom-up fashion, so as to critically appreciate the appropriateness of given pedagogies in the local context. To be more specific, actions should be in place to bridge the gap between seemingly effective pedagogy from the perspective of HE researchers (theory) and what truly works in authentic classroom settings from the perspective of HE practitioners (practice). Research could be done to explore practitioners' beliefs in the first place, with later strategies attempting to reconcile such beliefs with the new pedagogies. Concurrently, it is also pertinent to involve other stakeholders, e.g., students, institutions and administrations in such process.

Meanwhile - as uncovered by this study - to mitigate against the hindrances to lecturers' pedagogical innovation, e.g., student motivation and competence, administrative tasks and academic title accreditation, a more inclusive HE system should be constructed which offers salutary contexts for lecturers' motivation and participation in such innovation.

Also, PjBL enactment seemed to be hindered by the misalignment between the system of lecturer beliefs and the instructional emphasis of PjBL on boosting knowledge

construction. Lecturer beliefs were also affected by their departmental and institutional contexts. To facilitate PjBL implementation as a form of pedagogical innovation in Chinese HE, it is suggested (e.g. Bitter et al., 2014; Ravitz, 2010) that PjBL to be conducted by all teachers in a building simultaneously. On the other hand, PjBL implementation is challenging since it suggests a different form of learner-teacher interaction and necessitates a shift from teacher-fronted to learner-centric inquiry, alongside innovative modes of assessment. It would then be instructive to consider more provisions of opportunities for student collaborative learning together with teacher support.

Meanwhile, as recovered by this study the hinderances to lecturers' pedagogical innovation, e.g., student motivation and competence, administrative tasks, academic title accreditation, a more inclusive HE system should be constructed to offer salutary contexts for lecturers' motivation and participation in such innovation.

8.5 Implications for future research

This section considers some potential directions for future research, in light of some of the issues uncovered in this study, and some which emerged during the course of the study.

Firstly, given the focus of the investigation on the beliefs and practices of lecturers concerning PjBL, it would be pertinent to further include other groups of stakeholders, e.g., students, institutional managers and education administrators. To illustrate, as one participant voiced their uncertainty regarding the PjBL concept, it would be interesting to investigate the perspectives of students and institutional managers regarding PjBL. Another issue relates to the lecturers' perceived challenges of balancing pedagogical innovation and administrative tasks. In this case, delving into the perspectives of stakeholders at the managerial level, e.g., institutional managers and education administrators, would be conducive to better capturing the complexities of working in Chinese HE.

Additionally, as discussed in section 8.2 that one limitation of this study is its narrow

coverage of two lecturers from Southwest China, it would be instructive to see how this study's methods could be used in other settings, e.g., from the perspective of lecturers in more economically developed regions of China, or in other countries.

This case study also touches upon some issues concerning the culture of conducting research in China, e.g., my identity as a Chinese academic pursuing a PhD degree in the UK, and my participants as Chinese working in Chinese HE. It would be instructive to consider, for instance, how the overall research process speaks to the culture of the researcher and research participants, and in what ways such research could be conducted in a different culture.

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Appendix one: Interview schedule

Interview schedule

Here in this file the main purposes/focuses of each interview are outlined, together with some indicative questions relating to the overriding research questions.

The overriding research questions are:

a. How is western pedagogy adapted in Chinese higher education, with PjBL as a case?

b. How do complex systems of lecturer belief and practice interact with such adaptations?

Interview 1 with the lecturer (=initial contact) as key informant:

Expected duration: one hour

Purpose of the interview/areas interview questions will focus on:

(i) To gain insight into background as a language teacher (e.g., previous education, teaching experiences, other relevant qualifications);

Indicative question:

- Could you please tell me something about yourself?

(ii) To gain insight into prior experiences with PjBL (e.g., reasons underlying the current interest in PBL, information on the prior courses which might feature PBL);

Indicative question:

- Could you please share your experiences with PBL?

(iii) To gain insight into the nature of the module(s) which feature PBL (e.g., module size, duration, gender ratio of students, course objective, course-specific teaching/learning materials, student projects for PBL instruction, how the projects are devised, conducted, and presented, how much input/scaffolding from the teacher is anticipated);

Indicative questions:

- Could you please tell me something about your module that features PjBL?
- Is anything within your instruction you would call “projects”?

(iv) To gain insight into the lecturers beliefs of module teaching, teacher-student roles and student needs:

- Could you please tell me something about your beliefs relating to teaching the module?
- Could you please share, in your understanding of the roles of yourself and students in the module teaching?
- Could you please share your understanding of the dynamics of an effective classroom?

(v) To gain insight into the lecturers’ plans for and expectations of PjBL instruction (e.g.,how PjBL could meet the teaching/learning needs within the department, what contextual aspects impact PjBL planning);

Indicative question:

- Could you please share your expectations about the module?
- Could you please share your understanding of the ways PjBL-based instruction could help fulfil such expectations?

(vi) To obtain information concerning the departmental/institutional contexts in which the module is situated;

Indicative questions:

- Could you please tell me about your department, colleagues, and whom do you work closely with?
- Could you please tell me about the teacher meetings within your department, whether it is possible for me to come along, and whose permission should be gained?

Interview with the administrative staff/departmental leaders

Expected duration: 20-30 minutes

Purpose:

1. To gain a deeper understanding of the departmental culture and context

Indicative questions:

- Could you share something about your personal background and your role(s) in the department of English?
- What kind of policies are you interested in?
- Could you tell me little bit about the profile and strengths of your department/faculty/institution?
- How has it developed overtime?
- What are your plans and visions for future developments?
- What role do English language teaching and learning play for these plans?

Interview 2 with other lecturer(s) from the same module team

Expected duration: one hour

Purpose of the interview/areas interview questions will focus on:

To gain a deeper understanding of the departmental culture and context by asking the lecturers about their major concerns, and their daily/weekly on-campus activities.

Indicative questions:

- Could you please share something about your personal background and your role(s) in the course team?
- How many module team(s) do you find yourself in within the department?
- Could you please tell me something about your department and course team?
- The overriding educational objectives within the department/module team(s)
- The ways of responding to educational policies
- How teaching activities are arranged and performed within the department and course team
- The aspects affecting the decisions on teaching activities
- Possible negotiations of teaching practices within the department/course team(s)
- Other additional information

Interview 3 with the administrative staff/departmental leaders

Expected duration: 40 minutes

Purpose:

To gain a deeper understanding of the departmental culture and context

Indicative questions:

1. Could you share something about your personal background and your role(s) in the department?
2. What kind of policies are you interested in?
3. Could you tell me little bit about the profile and strengths of your department/faculty/institution?
4. How has it developed overtime?
5. What are your plans and visions for future developments?
6. What role does teaching play for these plans?

To extract more useful and pertinent information, supplementary questions will be raised during the interviews:

- Could you give more detail on…
- Could you give any examples?
- I wonder what do you mean by saying…
- I find… really interesting. Could you tell me more about that?

Appendix two: Observation schedule

Observation Schedule

Non-participatory observations of the modules featuring PjBL

Observation, an integral part within filed work in ethnography and as relevant to this particular piece of research, is utilised mainly for the overriding goal of contextualising, and making connections among the bids of information gathered at multiple levels, times and places. From the researcher's side this warrants a substantial investigation of time, concentration, and other techniques to capture and explore the information to the fullest, by virtue of which comprehensive appreciations of the observed could be formulated.

Expected sessions: 18 for each case study
Expected frequency and duration: 90 minutes per week, as informed by the lecturers
Purpose: to catch the first glimpses of how PjBL is enacted. The data will ensure that experience and practice with observations will be gained and that adjustments to the observation process and tools can be made.
Focuses: the lecturer's PjBL instruction, activities, the students' activities, PjBL-relevant projects.
Considering that a concrete set of guidelines is necessitated by the filed notes in all observations, I will borrow from Spradley's (1980) checklist in taking filed notes. Field notes at both case studies would thus include the following:

(i) space: the physical setting (the classroom layout);
(ii) actors: the people in the situation (teacher and students);
(iii) activities: the sets of related acts that are taking place (PjBL-relevant teaching and learning activities);
(iv) objects: the artefacts and physical things that are there (teaching and learning materials, the students' PjBL projects)
(v) acts: the specific actions that participants are doing (teacher and student behaviours, forms of interaction);
(vi) events: the sets of activities that are taking place (PjBL-relevant teaching and learning activities);
(vii) time: the sequence of acts, activities and events (durations of the class, PjBL-relevant activities and events);
(viii) goals: what people are trying to achieve (teaching and learning goals underpinned by PjBL);
(ix) feelings: emotional feedback from the teacher.

In developing quality field notes in the observations, I will endeavour to note the four observational data as mapped out by Spradley (1979) and Kirk and Miller (1986):

(i) notes made in initial observations;

(ii) expanded notes that are made as soon as possible after the initial observations;

(iii) journal notes to record issues, ideas, difficulties etc. that arise during the fieldwork;

(iv) a developing, tentative running written and oral record of ongoing analysis and interpretation facilitated by technology, i.e., recording reflections orally (in English) on a digital recorder.

Appendix three: Participant information sheet

Participant Information Sheet

You are invited to take part in the research entitled *Adaptation of western pedagogy in Chinese higher education: a case study of Project-Based-Learning*, conducted by Jiarui Li, a second-year postgraduate research student from the School of Education at Durham University. Please read this form carefully and ask any questions you may have before agreeing to be in the study.

The researcher is very interested in English teaching and learning, as well as how projects can be used to facilitate teaching and learning. The purpose of the research is to understand how project-based-learning is implemented in the context of China's higher education and the way in which it is negotiated and shaped by local contexts. If you agree to participate in the research, you will be asked to give your consent to the following:

For teachers who are involved in the 'English Lexicology' module:

1. To participate in interviews about:
    - Your personal backgrounds;
    - Your experiences and views of the project-based-learning instruction and the course that features project-based-learning;
    - The wider context of the course, the course team and department
2. To allow the researcher to observe the 'English Lexicology' course and take notes;
3. To allow the researcher to observe and audio-record the planning and reflection sessions of the course (to be negotiated);
4. To be audio-recorded during your teaching of the classes and during interviews, and/or the planning and reviewing sessions;
5. To allow the researcher to access the materials you will provide for classroom learning;
6. **To allow the researcher to accompany you** during your working day as a

university teacher and take notes;
7. For recordings of the classes, and/or planning and reviewing sessions, and interviews and/or film, materials and notes generated as part of these activities to be used for research purposes.
8. In case the classes/planning and reviewing sessions are moved to online due to the pandemic, to allow the researcher to observe the online courses, planning and reviewing sessions and conduct online interviews, and generate audio recording of the classes, interview, and planning/reviewing sessions.

For other teachers who are willing to participate in the research:

1. If appropriate, to participate in an interview about:
2. Your personal backgrounds;
3. Your experiences and views of the course(s) they teach, or are involved in in the department;
4. The wider context of your course, your course team and department.
5. If appropriate, to allow the researcher to observe one session of the EMI course you are teaching;
6. To be audio-recorded during your teaching of the classes and during interviews.
7. For recordings of the classes, interviews and/or film, materials and notes generated as part of these activities to be used for research purposes.
8. In case the classes are moved to online instruction due to the pandemic, to allow the researcher to participate in the online class and interview and generate audio recording of the class and interviews.

You are free to decide whether or not to participate, and you can decide to participate in all or some of the elements of the research listed above. If you decide to participate, you are free to withdraw at any time without any negative consequences for you.

All responses you give or other data collected will be kept confidential. The records of this study will be kept secure and private. All files containing any information you give are password protected. In any research report that may be published, no information will be included that will make it possible to identify you individually. There will be no way to connect your name to your responses at any time during or after the study.

If you have any questions, requests or concerns regarding this research, please contact me via email at jiarui.li@durham.ac.uk or by telephone at +86 13982201025.

This study has been reviewed and approved by the School of Education Ethics Sub-Committee at Durham University (January 17th, 2022).

Jiarui Li

诚邀您参与英国杜伦大学教育学院二年级研究生李佳芮开展的有关英语教学法的研究。在同意参与本研究之前，请仔细阅读本表；若有任何疑问，请予告知。

我对英语教学及如何利用项目促进教学非常感兴趣。本研究是为了解项目型学习在中国高等教育背景下的实施，以及该教学法如何受到学校/学院背景的影响。

若您同意参与研究，您将同意以下事项：

“英语词汇学”课程的授课教师：

1. 参加以下的半结构式采访：
   - 您的个人信息；
   - 您对基于项目的学习指导和以基于项目的学习为特色的课程的经验和看法；
   - 您所在的课程团队与学院信息。
2. 允许我观摩“英语词汇学”课堂，并做笔记；
3. 允许我观摩您参与的“英语词汇学”规划总结会议/讨论，并记笔记或录音（待协商）；
4. 允许我在课堂教学与访谈期间进行录音；
5. 允许我查看并存取您为课堂学习提供的材料；
6. 允许我在您的工作日期间陪同您并做笔记；
7. 将由课堂、及/或规划或总结会议及访谈的照片或录音所生成的材料和笔记用于研究目的。
8. 请知晓，若出现疫情反复导致的封校，课堂、课程规划或总结会议的观摩与访谈将转为线上形式。

对于其他愿意参与本研究的教师：

1. 在自愿的基础上，参与有关以下问题的访谈：
   - 您的个人信息；
   - 您对所教课程的经验和看法，或参与该系的课程；
   - 您的课程、课程团队或学院的更广泛背景。
2. 允许我观摩一节您所教授的EMI课堂，并做笔记；
3. 允许我在课堂教学和访谈期间进行录音；
4. 将由课堂、访谈的录音所生成的材料和笔记用于研究目的。
5. 请知晓，若出现疫情反复导致的封校，课堂观摩与访谈将转为线上形式。

您可以自由决定是否参与本研究，或参与上述研究的全部或部分内容。如果您决定参与，您可以随时自由退出，并不会对您造成任何负面影响。

如果您对本研究有任何疑问、要求或顾虑，请通过电子邮件 jiarui.li@durham.ac.uk，或致电与我联系。

本研究已由杜伦大学教育学院研究伦理小组委员会审查和批准（批准日期：2022年1月17日）。

此致，

李佳芮