Writing in the disciplines of science: Dissertation writing experiences of postgraduate students in a Thai university

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Abstract

This study reports on Thai science students' experiences in writing their master's dissertations in English in a Thai university. Situated in an interpretive, qualitative case study design, the study implements a theoretical framework drawing on the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001). The research participants were five master's students and their paired dissertation supervisors recruited from three master's programmes in science disciplines where the medium of instruction was Thai. The students, however, wrote their dissertations in English. Data were derived from questionnaires, semi-structured interviews, collaborative conversations, writing samples, and documents produced by the university.

The findings revealed that the students' preference for writing their dissertations in English encompassed their negotiation and shaping of their social identities and investment in their communities of practice. The students reported that they put a great deal of effort into preparing themselves to cope with the perceived linguistic demands of dissertation writing. However, they perceived that their preparation, to a certain extent, was unsuccessful, attributing this to the university's lack of appropriate language support and their unfamiliarity with autonomous language learning. The students' negotiation with the demands of writing their dissertations during the writing-up stage reflected their multidimensional engagement in different literate activities of their communities of practice. This included making use of authoritative written artefacts, accommodating their supervisors' expectations, and developing a linguistic repertoire through interacting with other members of their communities, particularly those from their local, immediate, interactive communities of practice.

This study articulates the various needs in understanding dissertation writing practices and other interconnected academic literacy practices as socially and ideologically constructed in a local, immediate milieu. The study also provides EAP practitioners with pedagogical implications for planning, preparing and delivering dissertation writing support for science postgraduate students. It also suggests that dissertation supervisors should initiate an open dialogue with their students during the supervision process and engage in collegial discussions with their colleagues in order to co-construct effective supervision practices.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 Introduction

This study explores Thai science students' experiences in writing their master's dissertations in English at a Thai university. Situated in an interpretive paradigm, the study adopts a qualitative case study design and implements a theoretical framework drawing on the constructs of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001).

In the following sections, I first address the rationale of the study. This will be followed by discussions of the purpose and research questions, theoretical and methodological underpinnings, and significance of the study. The overall organisation of the thesis is also provided.

1.2 Rationale of the Study

The master's degree programme in the disciplines of science at a Thai university has traditionally included taught courses and an extensive research project. In general, the programme requires a minimum registration period of two years with a maximum of four years. As science students approach the end of their graduate work, they are required to write a research-based dissertation, being the culmination of their postgraduate studies. Not only is completing a dissertation necessary for the fulfilment of their graduation, it also serves as a credential that students are capable of communicating their constructed knowledge to other scientists in their field. Writing a dissertation, therefore, could be considered as representative of a student's efforts in gaining legitimate peripheral participation in multi-layered communities of practice (Lave & Wenger, 1991; Wenger, 1998).

This study has grown out of my interest in the academic literacy practices, particularly dissertation writing, of the master's programmes in science disciplines at one university in Thailand, henceforth referred to by a pseudonym as 'Central Bangkok University'. Generally, in the mainstream master's programmes in science disciplines at Thai

universities, Thai is used as a medium of instruction and dissertation writing. There are a few universities that offer the master's international programmes where English is used for teaching and learning throughout. At the Faculty of Science, Central Bangkok University, a unique feature of its master's programmes is that all taught courses are delivered in Thai, but students are encouraged to write their dissertations in English. This policy results in a large number of students opting for English as a language of dissertation writing each academic year. There is an exception in the programme in petrochemistry and polymer science, where all students are required to write their dissertations in English only.

As a former English for Academic Purposes (EAP) tutor responsible for teaching English to undergraduate science students at Central Bangkok University, I was privileged to have ample opportunities to discuss with science students their academic literacy experiences on their programmes of studies. Several of my former students pursued the master's degree and often returned to me for certain types of language assistance. This provided me with further opportunities to learn more about their academic literacy experiences on the master's programmes. With reference to writing dissertations in English in particular, conversations with my former students and science tutors gave me anecdotal evidence suggesting that both parties experienced certain challenges as they underwent the processes of dissertation writing and supervision. I also learned from them that the Faculty of Science did not provide its students with any formal language training in dissertation writing. Rather, individual supervisors made their own initiatives in supporting their students and usually played a dual role of science and language mentors. As I had previously worked for the university's English Language Teaching Unit (ELTU), I also realised that the ELTU did not offer any English language courses gearing towards academic/dissertation writing to postgraduate students. Considering the academic context of dissertation writing and support as mentioned, I should like to argue that challenges in writing dissertations in English, as may be encountered by students in science disciplines at Central Bangkok University, should not be underestimated.

As an EAP practitioner and researcher, I have perceived that EAP tutors should share mutual responsibility with dissertation supervisors in providing adequate academic literacy support to their students, by acting as mediators of literacy (Benesch, 2001; Curry & Lillis, 2004; Wenger, 1998). In so doing, on one level EAP tutors must be able to recognise what dissertation supervisors expect from their students with regard to English academic literacy. On another level, EAP tutors must be able to help equip the students with abilities to negotiate the demands of writing and their supervisors' expectations. Simply put, should EAP tutors aim to be effective mediators of literacy for science students, then they should

have an adequate understanding of how students and their supervisors undergo the supervision process.

Unfortunately, in the Thai educational context, it appears that issues surrounding students' experiences in writing their dissertations in English, whether in the disciplines of science or others, have not yet been researched. Whilst there have been a certain number of studies focusing on doctoral thesis writing and supervision in other countries, several researchers (e.g. Anderson *et al.*, 2006; Drennan & Clarke, 2009; Dysthe *et al*., 2006) have observed that master's dissertation writing and supervision practices have remained under-explored and unarticulated. Due to the paucity of literature on this premise at both the local and international contexts, it could be argued that EAP tutors at Central Bangkok University may not have adequate access to sources of knowledge about dissertation writing and supervision.

1.3 Purpose and Research Questions

Given the writing context and a lack of literature on dissertation writing and supervision, as discussed in the preceding section, this study sets out to broach students' dissertation writing experiences in science disciplines at Central Bangkok University. It is important to note that the term 'experiences', as used in this study, is intended to connote more than an interest in capturing the students' writing practices during the dissertation writing-up stage. The term is also extended to cover the students' motivation for choosing to write their dissertations in English. It also includes other academic literacy practices prior to their embarking on the writing-up stage. As mentioned in the preceding section, except those on the programme in petrochemistry and polymer science, the students can choose whether they want to write their dissertations in English or in Thai. An intriguing question is why many students choose to burden themselves with writing their dissertations in English, which may be more linguistically demanding than writing them in Thai. Another interesting aspect is how the students prepare themselves to meet the linguistic demands of writing their dissertations in English when the Faculty of Science and the ELTU do not provide them with any formal dissertation writing support. This study, therefore, formulates the following three research questions:

1. What are the students' reasons behind their preference for choosing to write their dissertation in English?
2. How do the students prepare themselves to cope with the perceived linguistic demands of writing their dissertation?

3. How do the students negotiate the demands of writing their dissertation during the writing-up stage?

1.4 Theoretical and Methodological Underpinnings

To answer the three research questions posed in the preceding section, this study draws on social perspectives of academic writing and an interpretive research paradigm to establish broad theoretical and methodological frameworks. The theoretical underpinnings of this study are the notions of communities of practice (Lave & Wenger, 1991; Wenger 1998) and imagined communities and investment (Norton, 2000, 2001). In terms of research methodology, this study employs an interpretive, qualitative case study design (Cohen *et al*., 2000; Stake, 1995; Yin, 2003). Placing critical emphasis on an in-depth understanding of the interplay between writing experiences and the real-life writing context, this study limits itself to exploring only five students' experiences in writing their dissertations. In the following, I provide an overview of the frameworks as well as my justification for using them in exploring science students' experiences in writing dissertations on their programmes of studies.

This study is theoretically guided by social perspectives of academic writing in L2. Casanave (2002), Leki (2006), and Li and Casanave (2008) observe that research on second language studies in the last two decades has shifted away from the perspective of language learning as autonomous cognitive activity to theoretical perspectives of how language learning is embedded in, constructs and reflects its context, a shift which Trimbur (1994) calls a 'social turn'. In the premise of research on discipline-specific writing, researchers following this tradition advocate that writing is governed by the conventions of the community where writing is produced, and that writing involves a process in which writers seek membership into the target disciplinary community (e.g. Casanave, 1995, 2002; Hyland, 2000; Li, 2007; Swales, 1990). There appear to be two major orientations standing out in the academic writing literature to capture how L2 students learn to write in their disciplines.

The first orientation argues that successful L2 writers are those who can understand, and then master, the discourse conventions of the target community. Researchers with this perspective, thus, attempt to identify types of writing tasks, and specific linguistic and rhetorical features of written products required by different academic disciplines (e.g. Connor & Mauranen, 1999; Swales, 1990; Swales & Feak, 1994, 2000). To these researchers, helping L2 novice writers to cope with discipline-specific writing is to familiarise them with writing tasks and linguistic and rhetorical features of the discipline.

Common types of research taking this orientation are, therefore, needs-analysis survey studies and genre-based studies. However, this pragmatist orientation has been challenged by some scholars, for it tends to treat the process of academic writing and achieving membership of a community as a one-way socialisation process into a homogeneous and unchanging academic community, rather than a more complex negotiation (Morita, 2004; Street, 1996).

Whereas the first orientation focuses on 'what' L2 novice writers need to know and master, the second aims to understand 'how' novice writers learn to write by being socialised into the target academic community. Researchers who hold this perspective take a more contextualised look at academic literacy and writing practices used in a given discipline, placing critical emphasis on the more local, immediate, interactive context of language use and writing (Belcher, 1994; Benesch, 2001; Casanave, 1995, 1998, 2002). Writing is viewed as a process by which novice writers negotiate their participation in an academic community. Writing is not regarded as a mere acquisition of sets of skills or shared conventions held by the experts of the community, as researchers from the former orientation believe. Rather, writing is argued to be highly complex, interactive, situated, charged with tension (Belcher, 1994; Casanave, 1995, 2003; Prior, 1995). Resonating with this view of writing, researchers enquire into L2 writers' experiences with particular interests in what literacy practices they bring to their writing, and how they negotiate the demands of writing whilst they are positioned as novice writers in their academic communities (e.g. Casanave, 2002; Krase, 2007; Li, 2007; Tardy, 2005). The research design mainly adopts an interpretive, qualitative case study, aiming at understanding the writing contexts and unfolding what really takes place in natural settings when novice writers go through their writing process.

It is the latter orientation of academic writing research that aptly provides broad theoretical and methodological frameworks for this study. This is because this study aims to understand and contextualise 'overall experiences' of writing the dissertation, i.e. 'how' the students negotiate the demands of writing their dissertations in their 'real-life settings'. The study does not endeavour to examine the linguistic and rhetorical features of the completed dissertations *per se*. Given the broad theoretical framework based upon this social orientation of academic writing, this study further develops a more elaborate theoretical framework by drawing on the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001). According to Lave and Wenger (1991) and Wenger (1998), their assumption about learning is that learning takes place in a 'community of practice' by the process, to which they refer as

'legitimate peripheral participation'. Put it another way, new members of a given community gain knowledge of the community through their engagement in different community activities and interactions with more experienced members. 'Legitimacy' is associated with the concept that anyone is potentially a member of a community, and 'peripherality' resonates with learning that is gained through an increasing engagement. However, Lave and Wenger (1991) note that legitimate peripheral participation can be conflictual due to negotiation and power relations among members whose levels of experience and expertise in a community vary. By applying the notion of communities of practice to this study, master's students, as novice researchers and writers, are considered to be legitimate peripheral participants of their academic programmes. The students' dissertation writing experiences can be understood from the ways in which they gradually learn to write from others, by engaging in different literate activities of their academic communities, such as discussing their writing drafts with their supervisors, sharing research and writing ideas with peers, seeking language help from doctoral students, and preparing papers for conference presentations.

This study also draws on Norton's (2000, 2001) notions of imagined communities and investment to augment the notion of communities of practice. According to Norton (2000, 2001), learners invest in a second language to enable themselves to obtain a wide range of symbolic and material resources necessary for their envisioned future, or imagined communities. Norton (2000, p. 11) further argues that investment in learning and using the target language is also "an investment in a learner's own identity, an identity which is constantly changing across time and space." As briefly mentioned in the preceding section, many master's students in science disciplines choose to write their dissertations in English. As will be reported in detail in Chapter 5, the student participants' decision making in writing dissertations in English prompted them to attend additional language classes and engage in other literate activities held by the ELTU. Their preference for writing their dissertations in English was also closely associated with their social identity, i.e. 'how they wanted to see themselves' and 'how they wanted others to see them' as members of their programmes of studies. By combining the notion of communities of practice (Lave & Wenger, 1991; Wenger, 1998) with those of imagined communities and investment (Norton, 2000, 2001), the theoretical framework of this study can help unpack all three aspects of the students' dissertation writing experiences in question, as I have translated into three research questions posed in the preceding section.

In terms of the methodological framework, this study adopts an interpretive paradigm with the perspective that the phenomenon under investigation, or dissertation writing

experiences, may be perceived and interpreted differently by different individuals. Situated in this paradigm, a qualitative case study design is used because of its effectiveness in accessing an in-depth understanding of a particular phenomenon (Cohen *et al.*, 2000; Stake, 1995). The profound strength of qualitative research is that it helps researchers to understand a phenomenon in natural settings from the perspectives of those involved (Creswell, 2003). Meanwhile, a case study allows triangulation of different methods and data sources, an important characteristic of case study research (Yin, 2003), which leads to an increase in the trustworthiness of the study (Lincoln & Guba, 1985).

In this study, five master's students and their paired dissertation supervisors served as research participants. Recruiting a small number of research participants helped me, as a researcher, to obtain in-depth information about how the students and their supervisors underwent the writing and supervision processes. Data were collected from both the students and their respective supervisors in order to scrutinise whether there were any differences in how both parties 'perceived and interpreted' dissertation writing experiences and supervision practices. This kind of data-source triangulation would yield enriched information on the students' writing experiences, particularly those reflecting conflicts between the students and their supervisors, one characteristic of legitimate peripheral participation mentioned earlier.

Whilst designing this study, I was well aware that several aspects of students' writing experiences could not be captured through analysing their finished written products or direct observations of the writing process. These were, for example, issues surrounding writer identities, use of writing resources, attitudes towards feedback provided by their supervisors, student-supervisor relationships, and students' perceptions of language assistance received from different individuals. In this regard, major data of this study were collected by means of individual semi-structured interviews and collaborative conversations with the students and their supervisors. Like many researchers who investigated how L2 postgraduates wrote their extended pieces of works in natural settings (e.g. Jiang, 2001; Krase, 2007; Li, 2007; Phusawisot, 2003; Riazi, 1997; Tardy, 2005), I found that using semi-structured interviews was effective in encouraging the students to report and critically reflect on their learning experiences. I also found that the use of collaborative conversations, which will be described in detail in Sub-section 3.5.2c, Chapter 3, was very advantageous in accruing additional data that may be overlooked during the interview sessions.

In this section, I have provided an overview of the theoretical and methodological underpinnings of this study to provide a backdrop of this research project. The proposed

theoretical framework with a supporting literature review will be discussed in detail in Chapter 2, and the methodological framework in Chapter 3.

1.5 Significance of the Study

This study would contribute to the existing body of scholarship on academic writing in L2 for several reasons. On the very local level of pedagogy, findings from this study would help EAP tutors at Central Bangkok University to better understand science students' dissertation writing experiences in context. This would assist them in planning, preparing and delivering relevant EAP courses to support science students. Findings from this study would also prompt dissertation supervisors to critically reflect on their own supervision practices and, therefore, improve their practices where appropriate.

On the methodological level, this study can provide guidelines in conducting qualitative research on academic writing in L2, particularly to communities of TESOL professionals in Thailand. Having been engaging in teaching and researching L2 writing in Thailand, I have realised that there is inadequate research on academic writing at the postgraduate level in Thai educational settings. In particular, research employing a case study which is situated in the interpretive, qualitative paradigm is sparse. The research design of this study, as will be discussed in more detail in Chapter 3, can serve as an alternative methodological framework for researching academic writing in Thailand. This would help Thai TESOL professionals to add to their 'local knowledge' of academic writing and, thus, create appropriate pedagogy most relevant to their own teaching contexts (Canagarajah, 1999, 2000).

On the theoretical level, due to the uniqueness of the writing context of this study as briefly mentioned in Section 1.2 and will be discussed in detail in Section 4.2, Chapter 4, this research would offer another situated perspective of academic writing in L2. Findings from this study, and those reported by other writing researchers from different research sites, can help co-construct a more rigorous knowledge of the field for the wider international community of writing researchers. As Casanave (2002, 2004) and Leki *et al*. (2008) have advocated, empirical research from different socio-culturally situated contexts would help enrich the theorisation of L2 academic literacy and writing.

1.6 Organisation of the Thesis

This thesis is organised into eight chapters. Chapter 1 introduces the study by presenting the rationale, purposes and significance of this research project. Chapter 2 discusses the theoretical framework of the study. The chapter also reviews the literature on academic

writing and literacy practices, placing emphasis on both the theoretical scholarship and empirical studies on second language writing.

Chapter 3 describes the methodological framework of the study. The chapter first justifies the use of an interpretive paradigm and a qualitative case study design to explore the students' dissertation writing experiences in a Thai educational setting. This chapter proceeds to explicate the research site, research participants, and data collection and data analysis procedures. The chapter also discusses the establishment of trustworthiness and ethical considerations in conducting this research project.

Chapter 4 portrays the disciplinary practices and institutional contexts of the master's degree programmes where the research participants were drawn. It also presents the outlines of the five cases, each of which includes a brief biographical and educational background of the student and her/his paired supervisor. This chapter, therefore, serves as a backdrop for detailed data presentation, analysis, and discussions in the subsequent chapters.

Chapters 5 and 6 report on the findings of the study. Chapter 5 places emphasis on an exploration of the students' reasons behind their preference for writing their dissertations in English. The chapter also describes how the students linguistically prepared themselves to negotiate with the perceived demands of writing their dissertations at later stages. Chapter 6 reports on the students' dissertation writing practices, focusing on literacy practices employed during the three phases of the writing-up stage: Pre-writing Preparation, Text-Writing and Revision, and Final Preparation of the Dissertations.

Chapter 7 discusses the major findings of the study on the basis of the three research questions posed in Chapter 1. In order to critically explain the students' dissertation writing experiences, the chapter also addresses the literature on academic literacy and writing practices as well as the writing contexts.

Chapter 8 draws together the threads of the study. The chapter first summarises the research project and then provides EAP tutors and dissertation supervisors with pedagogical implications for supporting dissertation writing. This final chapter also critically reflects on the entire research process to identify areas of potential limitations of the research. It also provides directions and recommendations for further studies to advance the scholarship of the field.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides a theoretical and pedagogical background to conceptualise discipline-specific writing in L2. I first discuss the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001), on which the theoretical framework of this study draws, as briefly presented in the preceding chapter. I then review representative empirical studies on L2 writing, placing critical emphasis on writing in tertiary education. This will be followed by discussions on dissertation/thesis writing and supervision practices in various educational settings.

2.2 Communities of Practice

The notion of communities of practice is a theoretical model of the process of learning that has been formulated and developed in the works of Jean Lave and Etienne Wenger (Lave & Wenger, 1991; Wenger, 1998). Several researchers in L2 studies (e.g. Belcher, 1994; Leki, 2006; Morita, 2004; Rubdy, 2005) have used this notion as a theoretical framework to explore different aspects of second/foreign language learning. This section first discusses the theoretical underpinnings of the notion of communities of practice. It then proceeds to discuss the applications of this notion as the theoretical base for investigating second/foreign language learning in different contexts.

2.2.1 Theoretical underpinnings

There has been increased interest in reconceptualising what it is meant by 'learning.' A new metaphor, participation, as a process of learning has been introduced in the education literature as a complement to, and not as a replacement of, the traditional view of learning as an acquisition metaphor (Sfard, 1998). Unlike a view of learning as mere acquisition of knowledge in an individual's cognitive system, the participation metaphor proposes a theoretical perspective of learning as a process of participation or engagement in a socially situated activity. Lave and Wenger's (1991) seminal work also supports this social perspective of learning. It suggests that learning takes place in a 'community of practice'

through the process of learning called 'legitimate peripheral participation.' The notion of communities of practice is made more theoretically comprehensive in Wenger's later work, *Communities of Practice: Learning, Meaning, and Identity* (Wenger, 1998). In order to gain a better understanding of the notion of communities of practice, it is necessary to first discuss the concept of legitimate peripheral participation.

2.2.1.1 Legitimate peripheral participation

Lave and Wenger (1991) refer to the process in which learning takes place as legitimate peripheral participation. In their seminal book entitled *Situated Learning: Legitimate Peripheral Participation*, they advocate that learning is initiated when newcomers and more experienced members, or old-timers, of a given community interact and mutually engage in the community's activities. In other words, learning is embedded in a learner's participation in a community of practice and is an "evolving form of membership" (Lave & Wenger, 1991: 53). As Hanks (1991) phrases it in his introduction on their book, instead of capturing what kind of cognitive processes is involved, Lave and Wenger examine what kinds of social engagements cater to the appropriate context for learning to take place. Cox (2005) points out that a central proposition of legitimate peripheral participation is that learning is "as much about understanding how to behave as what to do, and is an identity change" rather than "a mechanistic, cerebral process of transmission and absorption of ideas" (p. 529). According to Lave and Wenger, the concept of legitimate peripheral participation provides:

> a way to speak about the relations between newcomers and old-timers, and about activities, identities, artefacts, and communities of knowledge and practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice. This social process, includes, indeed it subsumes, the learning of knowledgeable skills. (Lave & Wenger, 1991: 29)

Lave and Wenger (1991) have developed the concept of legitimate peripheral participation from an anthropological perspective. Based on their ethnographic studies of five apprenticeships (Yucatec midwives, Vai and Gola tailors, naval quartermasters, meat-cutters, and non-drinking alcoholics), they have argued that novices learn the particular skills, language, and norms of their communities onsite by way of being apprenticed by more experienced members of the communities. To put it another way, the novices first join the communities and have the legitimacy to become part of it. They learn at the periphery by

being assigned to do less important tasks with support from more experienced members. They later gradually accrue knowledge, engage in more important tasks, and finally have the potential to become fully-fledged members of the communities.

Lave and Wenger (1991) have also coined the term 'community of practice' with reference to legitimate peripheral participation by loosely defining it as a group of people that share a practice. Through legitimate peripheral participation, newcomers can gain access to a particular community of practice. Nevertheless, it should be noted that not all newcomers can successfully be fully-fledged participants of a community, as the notion of a community of practice does not imply homogeneity. Lave and Wenger (1991) recognise the conflictual and power-infused nature of social practice. They point out that, due to different statuses in the community to which they belong as newcomers and old-timers, there is an inequity of power between them in terms of different degrees of expertise, experience, and authority. This may constrain or facilitate movement towards fuller participation in the community of practice. As old-timers of a community, they can exercise power and control over newcomers by manipulating access to "a wide range of ongoing activity, old-timers, and other members of the community; and to information, resources and opportunities for participation" (Lave & Wenger, 1991, 100) that newcomers require in order to become fully-developed members of a community. They further elaborate that social membership also involves identity formation. They define identities as "long-term, living relations between persons and their place and participation in communities of practice" (p. 53). To put it another way, newcomers develop their identities according to the extent to which they participate in a community of practice through the multiple social relations and roles they experience.

The notions of legitimate peripheral participation and communities of practice provide researchers with a conceptual framework in examining learning in different settings. Haneda (2006) suggests that, when adopting this framework, researchers ask these questions: What kinds of opportunities for participation are afforded to community members? What kinds of structures are in place to make participants' access to community resources possible? What kind of identities do participants develop as a result of participation in a particular community? However, the notion of a community of practice, as enunciated by Lave and Wenger (1991), has revealed three main areas of limitations. First, the notion lacks a clear explanation of how the community is formed. Second, it seems to focus only on individuals' face-to-face engagement in immediately-accessible communities (Kanno & Norton, 2003). Finally, it predominantly focuses on individuals' learning and identity formation within a single community of practice (Eckert & McConell-Ginet, 1999; Haneda, 2006).

2.2.1.2 Characteristics of a community of practice

As discussed in the preceding section, Wenger's early work, co-authored with Jean Lave (Lave & Wenger, 1991), examines learning as a social phenomenon occurring not in the brain of individuals, or by the acquisition of information, but via a process of active participation or engagement in practice and the accompanying access to expertise. This acclaimed work is expanded in Wenger's later work, *Communities of Practice: Learning, Meaning, and Identity* (Wenger, 1998), to include significant additions to their previously-proposed learning theory. Still based on the concept of legitimate peripheral participation, Wenger uses an ethnographic study to explore how new recruits to an insurance company become fuller participants of a claims processing department for which they have worked. In this 1998 work, Wenger renders the notion of a community of practice more rigorous in response to the limitations of the 1991 work, by further elaborating the ways in which a community is formed and maintained and also by proposing the concept of individuals' multi-membership in different communities of practice.

Wenger (1998) emphasises that a community of practice is not determined by institutional structuring of group membership. For instance, a classroom is not necessarily a community of practice only because it has been arranged and labelled as a group. A community of practice, however, is a social configuration - either formally or informally bound - where members engage in and identify themselves with a common practice. Wenger (1998) articulates that a community of practice is formed based upon three dimensions of practice: mutual engagement, a joint enterprise, and a shared repertoire. Mutual engagement involves participants undertaking activities through cooperation. In this way, it binds participants together and helps to establish relationships and trust among them. A community of practice is also bounded by a joint enterprise, or a set of standards and expectations held by its participants. For a community of practice to function, participants need to be aware of, and also follow, their community's joint enterprise. The last dimension of a community of practice is that its participants need to generate and appropriate a shared repertoire of common resources, such as language, documents, artefacts, symbols, and routines. These resources are used by the participants to carry the accumulated knowledge of the community.

It is important to note that in Lave and Wenger's (1991) work, discussion seems to focus almost exclusively on issues surrounding learning and gaining membership in a single community of practice. In his later work, Wenger (1998) extrapolates that people usually have multi-memberships due to their participation in multiple communities of practice at

once and their engagement in various activities of each community. He also introduces the concept of 'brokering' to refer to the connection or relation of one community with another. To him, some people can work as 'good brokers' between communities to introduce practice belonging to one community to another. These brokers are "able to make new connections across communities of practice" and "enable coordination", thus resulting in opening new possibilities for learning to community members (Wenger, 1998: p. 109).

Another crucial characteristic of communities of practice is identity, "the negotiation of our experiences in a process of becoming, or not becoming, a certain person" (Wenger, 1998: 215). It is worth nothing that the original work of Lave and Wenger (1991) focuses on 'engagement' as a means of learning in a community of practice, which Kano and Norton (2003) comment on as seeming to refer only to face-to-face interactions among community participants. Wenger (1998), however, points out that it is not only 'face-to-face engagement' but also 'engagement through imagination' that is involved in the process of learning. He refers to face-to-face engagement as direct involvement in tangible and concrete relationships within a community of practice, whilst engagement through imagination is regarded as ways in which members of a community create their new images in relation to their current or future community and also explore their possibilities for learning and gaining fuller membership in it. Wenger (1998) further argues that learning through either mode of engagement can help construct members' social identity. As he puts it, members of a community define who 'they are or are not' through their participation or non-participation in community activities, and through their imagination of what they can or cannot do. Wenger (1998:164) argues as follows:

> We not only produce our identities through the practices we
> engage in, but we also define ourselves through the practices we
> do not engage in. Our identities are constituted not only by what
> we are but also what we are not. To the extent that we can come
> in contact with other ways of being, what we are not can even
> become a large part of how we define ourselves.

When considering the concepts of multi-membership and social identity, it can be seen that individuals can construct multiple identities depending on their status in each of the communities of practice that they have entered. For instance, an individual may develop her/his identity as a more experienced member of a particular community when she/he can effectively handle difficult tasks as other experienced members can. Meanwhile, an individual may construct her/his identity as a novice of another community, when a great

deal of support from the community expert is still in need, in order to complete an assigned task.

In order to better understand the notion of community of practice, let us briefly consider the academic literacy practices of the research participants of the present study. Through the lens of learning in communities of practice, the student-supervisor relationship was used to define the five communities of practice in which writing practices were of central concerns. The five science students were considered to be newcomers to their academic programmes, whilst their dissertation supervisors acted as old-timers due to their greater expertise and authority. The students also joined other interconnected communities of practice beyond the student-supervisor relationship, through face-to-face interactions and imagination. This resulted in their gaining multi-memberships, for example, through their attendance in English classes at the ELTU (English classes as communities), their participation in academic conferences (wider disciplinary communities), and their desire and expectation to enter work markets after graduation (professional communities). EAP tutors and other academic staff responsible for providing language support to science students were considered to be brokers who may introduce the students to new possibilities for improving their English necessary to cope with the demands of writing a dissertation in their master's programmes. Their identities as members of a given community could be interpreted from their participation or non-participation in the academic literacy activities of the community. Simply put, the notion of communities of practice was used as a broad framework to conceptualise how the students, as novice scientists and writers of their communities of practice, engaged in different academic literacy practices and dissertation writing practices.

2.2.1.3 Critique of the notion of communities of practice

The notion of communities of practice has been applied across a wide range of disciplines, particularly by those from the social sciences. The major reason for this is that the notion stresses the participatory, negotiable nature of learning in real situations, which is not always based on overt teaching (Casanave, 1998, 2002; Dysthe, 2002; Flowerdew, 2000; Li, 2006). As Barton and Tusting (2005) have pointed out, the notion "appears to resolve some pervasive concerns of social sciences about learning" by presenting "a significant rethink of learning theory of value to anyone wanting to take learning beyond the individual" (p. 3).

In education in particular, the notion of communities of practice takes learning out of the classroom and places emphasis on the variety of groups and locations where learning occurs, such as adult learning, learning in the workplace, and learning in everyday life (Barton & Tusting, 2005; Fuller & Unwin, 2003; Lea, 2005; Martin, 2005). Based on his empirical

research, Flowerdew (2000) also notes that the notion is especially useful in conceptualising postgraduate education. He has argued that postgraduate students learn as much through legitimate peripheral participation as they do in the more formal, taught part of their study programmes. When considering postgraduate students' academic literacy experiences, it can be seen that postgraduate students, as newcomers to their academic communities, engage in various opportunities for acquiring discipline-specific knowledge and professional practices through their interactions with other more experienced members of their communities. An example given by Flowerdew (2000) is concerned with the process that a doctoral student went through in attempting to publish his academic paper in an international refereed journal. He has argued that the student in his study learned a great deal through his negotiation with the gatekeepers; that is, the journal editor and reviewers. It is through the concept of legitimate peripheral participation in communities of practice, Flowerdew (2000) has claimed, that can be effectively used to conceptualise how the student gradually learned about the publication process in his discipline.

Despite its strengths, the notion of communities of practice has also received certain criticism. Illeris (2003), for example, points out that the notion only addresses the fact that relevant learning 'simply takes place' once a person is part of a community of practice. However, it does not provide an adequate theoretical concept to help researchers to understand 'why' individuals want to learn. Illeris (2003) also argues that learning should be understood as both a social and individual process. In other words, a theoretical framework used for exploring the learning process should view learners not only as members of communities of practice but also as human beings with personal life histories, goals, and future perspectives.

Fuller and Unwin (2003) also identify the main shortcoming of the notion of legitimate peripheral participation in communities of practice in that it does not adequately mention a role for formal education institutions in the newcomers' learning process. In congruence with Guile and Young (1999), they have observed that theoretical perspectives of learning derived from cultural anthropology, including the notion of communities of practices, do not sufficiently discuss the aspects of formal instruction or consider apprenticeship as independent of any formal teaching. Based on their studies of apprenticeships in the UK contemporary workplace, Fuller and Unwin (2003) have found that formal off-the-job instruction delivered in specialist education by educational or training institutions, in combination with informal on-the-job learning, contributes a great deal to the newcomers' acquisition of knowledge.

Another area of limitations is concerned with a clearer explanation of conflictual issues in a given community of practice. Although Lave and Wenger (1991) and Wenger (1998) have acknowledged that legitimate peripheral participation involves conflict among community members, it is worth noting that their articulation seems to focus only on conflicts between newcomers and old-timers. However, in their study focusing on dissertation supervision strategies, Strauss *et al.* (2003) have found that the supervisors, as old-timers of postgraduate programmes, held different opinions about the extent to which they should provide language assistance to their students as newcomers. As Cox (2005) has commented, Lave and Wenger (1991) and Wenger (1998) do not clearly address the potential for conflict among old-timers themselves, with particular reference to their agreement or disagreement in providing support to newcomers.

Since the notion of communities of practice has certain limitations, this study also used the notions of imagined communities and investment (Norton, 2000, 2001), as will be discussed in detail in Section 2.3, to augment the notion of communities of practice in interpreting the students' dissertation writing experiences. In order to better understand how the notion of communities of practice was used as a theoretical framework for this study, it is necessary to discuss how researchers have employed this notion to investigate students' experiences in learning a second/foreign language.

2.2.2 Research and pedagogy

In the premise of language learning and academic literacy, learning in a community of practice has proved to be useful as a theory (Barton & Tusting, 2005). Following the concepts proposed by Lave and Wenger (1991) and Wenger (1998), learning a second language is seen as a process by which newcomers or L2 learners become gradually and increasingly competent in the use of their L2 due to their interactions with other members of their communities. Empirical L2 research has been conducted using the concept of community of practice either as a main theoretical framework or in concert with other socio-cultural theories. The following review of representative studies is aimed at resonating with different aspects of communities of practices, as previously discussed, with reference to L2 literacy practices. It should be noted that further discussions, particularly focusing on academic writing in L2, are left for Section 2.4.

Belcher (1994) can be considered one of the first researchers who used the notion of communities of practice to capture second language learning and, in particular, writing at the postgraduate level. Through her discussions with three L2 doctoral students and interviews with their respective supervisors at an American university, Belcher explored the

nature of student-supervisor relationships as they underwent the supervision process. The findings revealed that one student could not complete his thesis due to the different expectations of writing held by the student and his supervisor, and lack of good communication between them. An example was the practice of over-referencing, which the student aimed to use to show his extensive knowledge of the field, whilst the supervisor regarded such practice as a lack of authorial presence. Interestingly, Belcher found that the student with the weakest writing ability had the most positive and successful experience in writing her thesis. She attributed this to the collaborative and egalitarian relationship between the student and her supervisor.

Some studies regard the classroom context as a community of practice and, thus, examine how L2 learners engage in classroom activities and position themselves in a classroom community. For instance, Haneda (1997) situated her study in one classroom as a community of practice. However, she realised that her research participants were also participating in other different communities of practice beyond the classroom. Focusing on three students with different linguistic competency while learning Japanese as a foreign language at one Canadian university, the study drew on the data from the students' group sharing sessions, and the audio-taped student-teacher conferences. Within the classroom community, students engaged in different activities with different roles, alternating between being a 'legitimate peripheral participant' and acting as an 'expert', depending on the specific goals at each moment. For example, one student was considered legitimate and peripheral in the student-teacher conferences, but he acted as an expert with his superior practical knowledge in computer use in a group session with his course colleagues. This is due to his expertise gained from another community of practice that he also belonged to, being an engineering community of practice. This study suggests that the students successfully established new learning relationships with peers drawing upon their strengths, and interchangeably played the roles of novice and expert.

In line with Haneda (1997), Morita (2004) explored the academic discourse socialisation experiences of six Japanese master's students at one Canadian university. Employing the concept of a community of practice as a main theoretical framework, she analysed how these students negotiated their participation and membership in open-ended class discussions. Analysis of data obtained from student self-reports, interviews and classroom observations revealed that the students encountered challenges in negotiating competence, identity and power relations in class discussions. For example, some students developed an identity as less competent members when they struggled to participate actively in the class.

Other students, however, were active in class discussions in order to be recognised as legitimate and competent members of their classroom communities.

Leki (2006) explored the literacy experiences of a group of L2 undergraduate students at an American university. Drawing on social theories of learning, such as socio-cultural theory (Lantolf, 2000a) and legitimate peripheral participation (Lave & Wenger, 1991), the study looked at the students' socio-academic relationships with their disciplinary tutors. By interviewing both the students and their tutors, Leki found that learning was a process of negotiating the socio-academic relationship between the students and their tutors. She found that some tutors accommodated their L2 students by, for example, adjusting their own language in lectures and on exams. Some tutors even lengthened time allowed for completion of exams for their L2 students. Accommodations made by the tutors, as Leki suggested, helped legitimatise L2 students' participants in their classes, where domestic students and tutors were considered to be more experts of their classroom communities with reference to their use of English.

One of the obvious strengths of the notion of communities of practice is particularly related to its ability to conceptualise graduate education. Flowerdew (2000) notes that graduate students learn by being involved in their academic communities, such as interacting with their research supervisors, working as members of research teams, and submitting papers for publication. The facilitation of this kind of legitimate peripheral participation, Flowerdew argues, needs not preclude a role of formal instruction or training. Rubdy (2005), for example, drew upon the notion of communities of practice and developed a conceptual framework to foster a research culture among students in the MA in ELT (English Language Teaching) programme at one English-medium university in Thailand. Considering the issues of power relations and the genre of disciplinary discourse in the ELT research community, she realised that the students required a research-rich environment in order to be socialised into the ways of speaking and writing acceptable with the research community. She then developed a 'multi-thrust approach', which combined both explicit training and informal learning, in order to optimise opportunities for legitimate peripheral participation to take place. The approach involved the teaching and training of research-related conceptual and genre knowledge and the creation of an academic environment for graduate students to engage in a variety of professional activities. Rubdy (2005) claimed that the students could legitimately accrue the knowledge of the ELT profession, for example, by attending research methods training, dissertation writing workshops, and in-house seminars; giving a presentation of joint papers in an international conference; and publishing their research in in-house journals.

The reviewed studies have collectively and insightfully reflected on the nature of communities of practices, as afforded by Lave and Wenger (1991) and Wenger (1998). The studies by Belcher (1994) and Morita (2004) clearly shed light on the aspect of the power-infused nature of learning as situated in socio-academic communities of practice. Findings from Belcher's (1994) study, in particular, confirm that not all newcomers can successfully be fully-fledged members of the community. Findings from Morita's (2004) study suggest that students' participation or non-participation in their classroom communities may be impinged upon by their constructed identity. In concert with the studies by Belcher (1994) and Morita (2004), the study by Leki (2006) suggests that L2 students with less experience, authority, or linguistic competence can also move towards fuller participation in their academic communities if their tutors, or old-timers, are aware of their students' linguistic needs and, therefore, make an attempt to accommodate their students. The study by Haneda (1997) and the report by Rubdy (2005) clearly illustrate the nexus of newcomers' participation in multi-communities. As can be seen, students themselves, as evidenced from the case of Haneda's study, can act as 'academic brokers' if they can successfully apply their knowledge of one community to another. A course tutor, as in Rubdy's report, can effectively serve as an academic broker by engaging students in different meaningful disciplinary practices.

In this section, I have discussed the theoretical underpinnings of the notion of communities of practice primarily based upon seminal works of Lave and Wenger (1991) and Wenger (1998). I have also discussed how the notion theoretically frames this study. Representative studies have been reviewed in order to better understand the notion of communities of practice from the interpretive perspectives of researchers in the areas of L2 studies. In the followings section, I discuss the notions of imagined communities and investment (Norton, 2000, 2001), which are used in augmentation with that of communities of practice (Lave & Wenger, 1991; Wenger, 1998) in framing this study.

2.3 Imagined Communities and Investment

Several researchers (e.g. Cervatiuc, 2009; Gao *et al*., 2008; Gu, 2008; Haneda, 2005; Pavlenko, 2003) have used the notions of 'imagined communities' and 'investment', as proposed by Norton (2000, 2001), to investigate the relationship between L2 learning and identity formation. In support of Norton (2000, 2001), they argue that L2 learners' desired memberships in imagined communities and social identity profoundly influence their investment in learning an L2. Norton's (2000, 2001) notions of imagined communities and

investment are primarily developed from her qualitative study of immigrant language learners in Canada, focusing on literacy practices in the home, workplace and school.

2.3.1 Theoretical underpinnings

In order to better understand the notions of imagined communities and investment, it is important to first briefly discuss the theoretical background of motivation in L2 learning. This is because these notions, to a large extent, have been developed with reference to various perspectives on L2 learning motivation.

2.3.1.1 Motivation in L2 learning

Motivation is considered to be one of the main determining factors in the success in learning an L2. It also determines the degree of effort L2 learners expend in their L2 learning (Dörnyei, 2001; Oxford & Shearin, 1994). The history of L2 learning motivation research reveals an evolution from the social psychological explanation of the connection between motivation and L2 achievement to the recent attempt to gain a more comprehensive understanding of the situational and temporal aspects of motivational theory. Dörnyei (2003, 2005) has advocated that the development of L2 motivation research can be broadly divided into three main perspectives: the social psychological perspective, the cognitive-situated perspective, and the process-oriented perspective.

<u>The social psychological perspective</u>

Regarding the social psychological perspective, two Canadian social psychologists, Robert C. Gardner and Wallace E. Lambert, can be regarded as the pioneers in researching motivation in L2 learning. In their view, motivation in learning an L2 refers to a combination of effort and desire to achieve the goal of learning the language (Gardner, 1985; Gardner & Lambert, 1972). Based on their study of English-speaking Canadian high school students learning French in Montreal, where French culture and language are dominant, Gardner and Lambert (1972) have proposed two theoretical concepts of motivation in learning an L2: integrative and instrumental motivation. Integrative motivation refers to learners' positive attitudes toward the target language group, and its people and culture. It also includes learners' desire for cultural and language integration. As a counterpart of integrative motivation, instrumental motivation involves a desire to learn an L2 for functional and practical reasons, such as developing the language skills necessary for further education, and getting or securing a good job. Their study concluded that whilst both types of motivation were important, L2 learners with integrative motivation were generally more successful in learning the language than those with instrumental motivation. Gardner

later developed a model called the 'socio-educational model' (Gardner, 1988a, 1988b) by incorporating certain educational dimensions into researching motivation in the classroom. In support of his previous work with Lambert, Gardner claimed that integratively-motivated learners were more actively and voluntarily engaged in learning activities in the classroom, and also had higher achievement in learning an L2, than instrumentally motivated learners. The integrative/instrumental model of motivation has been influential in research into L2 learning motivation. The model, however, has also been criticised for its inadequacy in addressing the social influences on motivation. This has given rise to the second period of motivation research: the cognitive-situated perspective.

The cognitive-situated perspective

During the cognitive-situated period, researchers (e.g. Dörnyei , 1990, 1994; Ushioda, 2003; Williams & Burden, 1997), held the view that motivation should not be viewed only as residing within the individual, but also as being socio-culturally bound. Researchers that have adopted the cognitive-situated perspective put a great deal of effort into describing students' learning motivation as it was influenced by the immediate socio-cultural context (Dörnyei, 2001). Based on his study of adult learners of English in Hungary, Dörnyei (1990) has argued that in foreign language contexts, instrumental motivation may be more relevant and influential than integrative motivation. He acknowledged that integrative motivation plays a significant role in learner motivation. However, he has pointed out that, unlike second language learners, foreign language learners lack opportunities to be exposed to the target language culture and its speakers. In this way, they seem to have relatively little experience through which to formulate specific attitudes toward the target language group. Dörnyei (2001) also comments that Gardner and Lambert's (1972) model of motivation reflects social influences only through the individual's attitudes toward members of the target community, without their actual engagement or interactions with them.

Expanding Gardner and Lambert's (1972) motivational construct, Dörnyei (1994) proposes a three-level model of L2 learning motivation which also places emphasis on the social context of learning. The first level looks at the learner's integrative and instrumental motivation, or their general attitudes toward, and reasons for, learning an L2. The second deals with the learner's cognitive and affective traits, which include the learner's needs for achievement and self-confidence as salient individual differences in motivation. Finally, the learning situation level emphasises the importance of investigating the influences of the learning environment on motivation, which subsumes course, teacher, and group (class) specific motivational components. Another motivational model of L2 learning motivation is

proposed by Williams and Burden (1997), which, to a certain extent, shares some similarities with Dörnyei's (1994) model. Adopting a social constructivist perspective, they have argued that the individual's motivation for learning an L2 is influenced by social and contextual influences, which include "the social situation, as well as significant other people and the individual's interaction with these people" (Williams & Burden, 1997: 121). This model accounts for both individual and contextual factors, to which they refer as internal and external factors. Internal factors include cognitive aspects of motivation such as feelings of self-efficiency, learner attitudes, and the learner's view of the value that language learning holds. External factors, which deal with social and contextual influences, include a set of environment factors that may impact learner motivation, such as the influence of significant others (e.g. parents, teachers, peers) and the learning environment in which L2 learning takes place.

The process-oriented perspective

More recently, researchers have proposed a new perspective for investigating motivational changes in L2 learning by placing critical emphasis on the temporal aspect of motivation. Ellis (1997) and Oxford and Shearin (1996), for example, have posited that motivation is dynamic and varies from one moment to the next, depending on the context or task that learners engage in. Dörnyei (2003) notes that the temporal aspect of motivation in L2 learning is an essential element in explaining learner motivation because L2 learners' motivation is, to a large degree, dependent upon the stage of action the learners have reached in achieving their learning goal. For instance, a learner may set out to learn an L2 with a certain degree of instrumental motivation. She/he may also develop integrative motivation as she/he becomes more proficient, has more self-confidence in controlling her/his language use, and eventually wants to appreciate the language in greater depth.

Dörnyei and Ottó (1998) and Ushioda (1998, 2001) may be considered leading scholars as regards the process-oriented perspective of motivation research. They have developed models of motivation on the grounds that learning an L2 is a lengthy process. As such, over the years, there will be certain changes for learners, such as the ways in which they view the target language as well as their perceptions of learning it. Dörnyei and Ottó (1998) have commented that rather than tracking developmental changes in motivation over time, most previous studies in L2 learning motivation had exclusively examined motivation at a given moment in time. They have argued that in fact, the learner's motivation may even change during a single language-learning course. Researchers should, therefore, adopt the process-

oriented approach, which can explain "the daily ups and downs of motivation to learn, that is, the ongoing changes of motivation over time" (Dörnyei, 2005: 83).

Dörnyei and Ottó (1998) have proposed the process-oriented model for investigating motivation, which is built upon the work of German psychologist Heinz Heckhausen and Julius Kuhl (1985). This model, marking a shift from viewing motivation as static to dynamic, is aimed at describing the learner's decision making and action in handling L2 learning which, in turn, contribute to the learner's motivational changes over the course of the learning process. The model consists of three distinct phases: the pre-actional phase, the actional phase, and the post-actional phase. The pre-actional phase concerns the process in which the learner tries to understand her/his desire for learning an L2, and then sets language learning goals and takes the necessary steps to begin the learning process. In the actional plan, the learner translates her/his intentions into actions. That is, the learner carries out a series of subtasks intended to assist her/him in achieving her/his learning goals. The post-actional phase refers to the learner's retrospection and evaluation of the learning experience. This process allows the learner to compare her/his learning outcomes (or actual achievements) with the original goal of learning. This will help the learner to form a future plan of action, or to dismiss the intention and further planning if the previous learning plan is not successful. Once the evaluation process is completed, a new cycle of the motivated actional process begins anew. The model, as summarised by Dörnyei and Ottó (1998), can be used to describe the fluctuating level of the learner's commitment during the entire learning process.

While most of the researchers have adopted quantitative approaches to investigating motivation in L2 learning, Ushioda (1996) has been in favour of qualitative research approaches. She has argued that qualitative research approaches are particularly sensitive to the representation of the dynamic nature of the L2 motivation construct. Based on her longitudinal interview study exploring motivated Irish university students learning French as an L2, she found that the students' motivation was derived from their past French learning experiences (such as receiving good grades in French) and was directed towards their future goals. Of the twenty participants, sixteen reported principally being motivated to learn French due to the impact of their positive learning history, with future goal orientations playing only a minor role. As her research progressed, she also found that the students' future goals, whether they were instrumental or integrative, formed an 'evolving dimension' of L2 learning motivation. That is, their learning motivation was more predominantly goal-oriented. Based on this study, she has argued that L2 learners may take a certain amount of time to realise their actual future goals, resulting in their tentatively developing goal-

oriented motivation at later stages of the learning process. Ushioda's (1998) model, therefore, represents L2 motivation from past experience, present experience, and future perspectives. It also shows that motivation in L2 learning may change or fluctuate in parallel with the progression of the learning process. Recently, more research (e.g. Bowen, 2008; Lai, 2008; Lee, 2001) has begun to adopt the temporal aspect of motivation, as proposed by Dörnyei and Ottó (1998) and Ushioda (1998), in investigating learners' motivational changes in L2 learning in different educational settings.

This section has briefly discussed the research perspectives of motivation in L2 learning. In the following section, how the notions of imagined communities and investment (Norton, 2000, 2001) are related to these perspectives is discussed. This will help us to better understand the notions of imagined communities and investment, which were used to formulate the theoretical framework of this study.

2.3.1.2 Characteristics of imagined communities and investment

Norton (2000, 2001) has proposed the notions of imagined communities and investment as alternative constructs to investigate the dynamic nature of motivation and identity in L2 learning. Norton (2000) critiques that traditional studies on L2 motivation, particularly those inspired by Gardner and Lambert's (1972) work, have examined the learner's motive in learning a language without looking to the learner's social world, hence conceiving of "the language learner as having a unified, coherent identity, which organises the type and intensity of the language learner's motivation" (p. 120). The notion of investment is primarily derived from Norton's (2000) work investigating a group of adult immigrants learning English in Canada. She used a qualitative research design to collect the data, considering it the best method to obtain detailed data that covered the participants' learning motivation, their personal histories and learning experiences, and their future goals.

Based on her analysis of the interviews with the research participants, Norton (2000) found that existing theoretical perspectives on motivation in the field of L2 learning failed to account for her research participants' motivation in learning English and their actual engagement in literate activities. In particular, she found that, although her research participants were initially highly motivated in learning English, later some of them may or may not have committed to practising the language in certain social circumstances. To better understand the issues, Norton (2000) used an eclectic approach to interpret her research data by drawing on various perspectives of L2 motivation research. She used the concept of instrumental motivation as a starting point in analysing the participants' instrumental motives in taking English courses. She also drew on the cognitive-situated and

process-oriented perspectives of motivation in L2 learning, placing critical emphasis on the social context of learning and the participant's motivational changes over the course of their studies. Norton (2000) finally reconceptualised motivation as a form of 'investment' in 'imagined communities' to explain why some L2 learners were ambivalent in their desire to learn and practise the language.

Also inspired by Bourdieu's (1977) economic metaphors, Norton (2000) interpreted that the immigrant learners in her study put effort into learning the L2 with the expectation that they would have a good return on their 'investment' in terms of a wider range of symbolic and material resources. That is, they invested in personal resources (e.g. time and energy) in learning the target language in order to obtain symbolic resources (e.g. being proficient in the target language, having good education, and establishing a good rapport with local people) and material resources (e.g. better employment, real estate, and money). Norton (2000), however, has explicitly noted that the notion of investment, as used in her study, is not equivalent to Gardner and Lambert's (1972) concept of instrumental motivation, or the desire to learn an L2 simply for utilitarian purposes. The concept of instrumental motivation is derived from the learner's desire to obtain a tangible reward, such as money or verbal praise, for performing in a desire manner. This quality is, as Norton (2000) has noted, ahistoral, static, and does not account for the learner's shifting desires. Norton (2000) has emphasised that the concept of investment presupposes that language learners have "a complex social history and multiple desires" (p. 10), which is partly governed by power relations between learners and the people with whom they interact in the social world. In addition, when using or learning an L2, the learner is also "constantly organising and reorganising a sense of who they are and how they relate to the social world" (Norton, 2001; p. 11), or constructing their preferred identity. For example, when an adult ESL student learns English in class, she/he may develop an identity as a newcomer to the classroom community, where the tutor is considered to be an old-timer. However, when that student talks to other students in the same class who may appear to have a much lower English proficiency, the student may shift her/his identity to be an old-timer in the classroom community by comparing her/his own English proficiency to that of her/his peers.

As Arkoudis and Davison (2008) have noted, Norton (2000) has not aimed to develop the concept of investment to replace that of instrumental motivation. Rather, the notion is used to enrich and expand the concept of instrumental motivation. Arkoudis and Davison (2008) also observe that from the perspective of investment, L2 learners may still have instrumental desires, but those desires are neither fixed nor unitary, nor are they solely affected by individual learners. Those instrumental desires are, however, profoundly intertwined with

the learners' dynamic and changing interactions with the context of language learning and use. An interesting aspect of the notion of investment is that Norton (2002) also describes motivation in L2 learning with reference to learning identity, an aspect rarely discussed in motivation research.

As previously mentioned, Norton (2000) argues that an investment in learning an L2 involves the process of shaping the learner's identity. Later, Norton (2001) argues that learning an L2 is also viewed as a means of investing in the 'imagined community' to which the leaner wants to enter. Her argument comes from her interpretations of the experiences of adult immigrant language learners who withdrew from their English classes and was augmented by Kanno's (2003) research on Japanese bilingual students. Norton (2001) also draws on Anderson's (1991) concept of the 'imagined community' in interpreting the data from her study. Anderson (1991) argues that 'nations' are 'imagined communities' because nations are socially constructed by the members who perceive themselves as part of a particular nation. These members may, or may not, know one another but they can have a sense of community through their imagination. Norton (2001) also incorporates the concept of participation through imagination (Wenger, 1998) in theoretically underpinning her study. By applying the concept of participation through imagination, "a process of expanding oneself by transcending our time and space and creating new images of the world and ourselves" (Wenger, 1998; p. 176), Norton (2001) tries to capture how L2 learners construct their imagined communities and negotiate their social identities in order to guide their learning trajectories. In other words, L2 learners have images of the communities which they want to enter in the future, which are "no less real than the ones in which learners have daily engagement" (Kanno & Norton, 2003: 242); and these imagined communities have a significant impact on their current learning. As Pavlenko and Norton (2005) have asserted, the more L2 learners consider themselves close to their imagined communities, the more investment they put into learning the language. They have also noted that it is not merely about putting effort into developing the language skills necessary for gaining membership into the imagined community, but also an attempt to establish their preferred identities in that target community.

Norton's (2001) interpretation of the experience of Katarina, an immigrant in her study who finally dropped out of her English class, can serve as a good exemplar for understanding the notions of imagined communities and investment. She recounted that Katarina had been a teacher in Poland, a respected professional, before coming to Canada. However, in Canada, she could not find employment as a teacher, so she needed to work as a homemaker for the Community Service. She attended the English class in order to improve her English and

hoped to attend a computer course. In so doing, she could have a credential for obtaining a better job and 'be recognised' by others as a respected professional again, as she was in Poland. Her English tutor, however, discouraged her from attending the computer course, saying that her English was 'not good enough' to be able to take the course. Katarina felt that her tutor did not recognise her as a capable person. Katarina also felt that her tutor positioned her as an immigrant with a lower status through commenting on her limited English, whilst Katarina believed that she should have been considered to have the same social status as her tutor because she was once also a tutor in her own country. Since her tutor did not agree about her wanting to attend the computer course, Katarina also felt that she was denied an opportunity to access her preferred future, or imagined community of professionals, membership in which could be gained through mastering her computer skills. Katarina, therefore, refused to continue attending the English class. Norton (2001) concluded that Katarina's withdrawal from the English class, or her non-participation (Wenger, 1998) in the classroom community, was a result of a disjunction between her imagined community and the teacher's educational vision.

As previously discussed in Section 2.2, the notion of communities of practice (Lave & Wenger, 1991; Wenger, 1998) is used primarily to examine the students' participation in literate activities in their current, tangible communities. Norton's (2000, 2001) notions of imagined communities and investment are then complementarily used to capture how the students conceive their envisioned future and, in turn, affect their writing preparation and experiences. In the context of the present study, the students' imagined communities are the groups, whether intangible or not readily accessible, to which the students desire to belong. Therefore, they can be the academic or professional communities that the students want to enter after completing their master's studies. Through the lens of imagined communities and investment, the students' dissertation writing experiences can be conceptualised through their investment in their imagined communities and identity negotiation, rather than being solely examined within the confines of a mastery of language and instrumental motivation.

2.3.1.3 Critique of the notions of imagined communities and investment

In support of Norton's (2000, 2001) work, Pittaway (2004) encourages other researchers to use the notions of investment and imagined communities to gain an understanding of the process of L2 learning. He believes that these notions can contribute a great deal to our understanding of the complex process of L2 acquisition because they truly capture the reality of the learners' lives by acknowledging it for the complexity underlining their motivations, desires, and hopes for the future. In particular, these notions can help to explain

why some learners who are motivated nevertheless do not achieve their language learning goals, the tenet that other models of L2 motivation do not seem to be able to clarify.

While recent perspectives on motivation in L2 learning also place emphasis on social factors that may affect L2 learners' motivation, Pittaway (2004), Renganathan (2005) and Ryan (2006) have observed that most studies ignore the issues surrounding how inequitable relations of power between the learners and society, such as the case of Katarina previously discussed, can affect L2 learning motivation. Pittaway (2004), therefore, recommends that researchers employ Norton's (2000, 2001) concepts of L2 investment in the imagined community to further examine the issues in order to enhance the theorising of L2 learning motivation.

Dörnyei (2001) states that Norton's (2000, 2001) work enriches the process-oriented perspective of motivation, helping to unfold the complexity of L2 learning motivation with reference to the temporal aspect. While Ushioda (1998) found in her study that the L2 learners' current motivation was primarily attributed to their successful learning experiences in the past, research by Gao *et al.* (2008), which will be described in detail in the subsequent section, revealed that this is not always the case. Using the notions of communities of practice and investment, Gao *et al.* (2008) found that one of the postgraduate students in their study had high motivation in learning an L2, although he was not successful in learning the language as an undergraduate student. This is because the student used his unsuccessful learning experience as a driving force to re-construct his current preferred identity, a new identity of being a proficient L2 user. It is through the use of the notions of investment and imagined communities, as Gao *et al.* (2008) stated, that reminded them of the importance of carefully examining the connection between the participants' past and present learning experiences and their imagined community in which they sought entry.

More recently, Ushioda (2009) presents a person-in-context relational view of motivation. This concept is referred to as "a view of motivation as emergent from relations between real persons, with particular social identities, and the unfolding cultural context of activity" (Ushioda, 2009: 215). In support of her view, she also acknowledges the importance of understanding L2 learners' constructed identity with reference to learners' personal histories and social world, the critical aspect emphasised in Norton's (2000) work. As Ushioda (2009) has advocated, incorporating this aspect of learners' identity would help to illuminate how L2 learners' identity plays a role in facilitating or constraining their engagement in learning the target language.

The notions of imagined communities of practice and investment also have certain limitations. While Pittaway (2004) is in favour of these notions, he has expressed his concern about using the notions to examine young learners' motivation. To him, the notions of imagined communities and investment seem to be more appropriate to apply to adult learners, who usually have a clearer idea or goal of what they want out of learning an L2. In other words, with less experience and social life, young learners may be unaware of their imagined community.

There is also a challenging question pertaining to the pedagogical implications of the notions of imagined communities of practice and investment (Haneda, 2005; Pittaway, 2004; Renganathan, 2005; Ryan, 2006). That is, it seems difficult and very demanding for an L2 teacher to effectively handle a class consisting of several students with different personal histories, values, and interests in learning the language. It is even more difficult for the teacher to understand what her/his students' imagined communities are, particularly when the students are young learners of the language. Actually, Norton (2001) has recommended that L2 students, with their teachers as caring guides, should be encouraged to act as ethnographers who critically and regularly reflect on their own learning experience and inspiration. That is, the teachers should encourage their students to think of themselves as participants in multiple communities, including the classroom community and the imagined community. The teachers, then, help their students to interrogate their investments in their imagined community and simultaneously address the possibilities and limitations of gaining membership in a given imagined community through their engagement in different types of classroom activities.

It is worth noting that the pedagogical suggestions provided by Norton (2001) concur with Benesch's (2001) rights analysis, as a complement to needs analysis in EAP teaching, which acknowledges a dialogic process of negotiating teaching goals and classroom activities in order to avoid students' disengagement from the learning process. On one level, the suggestions provided seem to be fruitful in encouraging the students to engage in the learning process. On another level, those suggestions seem to be impractical in certain circumstances, with particular reference to formal education whose curriculum, stipulated by the institute's authorities, the students and teachers are required to strictly follow. The intriguing question is what the teachers should do when the students' imagined communities are tremendously diverse, and when their imagined communities are different from those envisioned by curriculum developers. These aspects have not yet been mentioned in the literature on L2 learning motivation, and therefore, need further investigation.

2.3.2 Research and pedagogy

The notions of imagined communities and investment provide an alternative theoretical framework for exploring the complexity of L2 learning in relation to the role of different social factors. Although Norton (2000, 2001) developed this theoretical framework from her empirical research on adult immigrant learners of English, more recently there have been a small number of researchers starting to apply the framework in order to explore L2 learning and teaching in the formal higher education system. The following review of representative studies particularly focuses on how the framework has been used to interpret students' L2 learning experiences in higher education in different sociolinguistic settings.

Gao *et al.* (2008) explored the motives underlying the participation in a weekly English discussion group by a group of mainland Chinese research students at an English-medium university in Hong Kong. Through their interviews with the students, Gao *et al.* (2008) found that the students were frustrated by the lack of opportunities to speak English due to the overwhelming Cantonese-speaking student majority. They also found that the students' investment of their time and energy in participating in the English discussion groups was not restricted to their instrumental motivation (i.e. to improve their English in order to get a better job after graduation). It was, however, also associated with their striving for self-development, leading to their shaping of their desired social identities. For example, Zhang reported that, when he was a master's student at his previous university, he learned that many undergraduates could speak English better than he did. As he was currently a doctoral student, he believed that he had to improve his English speaking to bring it up to doctoral level, which was supposed to be a great deal higher than that of the undergraduate level, in order to redeem his confidence. Another student, Linda, considered that improving her English through her participation in the weekly discussion group would help her to gain membership access to her desired imagined community of 'Chinese elites'. This was because, as she believed, a good command of English was an indication of a Chinese of higher social status.

In a more diverse socio-linguistic environment, Renganathan (2005) investigated the use of English by undergraduate students from the Malay ethnic group at one Malaysian university. Through a series of semi-structured interviews with the students, she found that the students were highly motivated in improving their English, considering it as a means for their academic pursuit and success in their future career. Many students, although they were not confident in speaking in English, tried to speak in English in order to be recognised and respected by other peers because, as the students believed, English was associated with a

higher social status. However, it was found that some students avoided speaking in English with their peers from the same ethnic group whom they considered to have a higher English proficiency than them. Several students also reported having no confidence in speaking in English to students from other ethnic groups, particularly those from the Chinese and Indian ethnic groups, who were usually perceived as having a higher English proficiency. The Malay students who were confident in speaking in English were those who had experiences studying in an English-speaking country and perceived that their English was good. There were also certain circumstances when those students with less confidence in speaking in English actually felt more comfortable using English; for example, when they were talking to friends whom they considered to have a lower language proficiency, or when they helped their friends to correct their writing and then discover that their friends could not write as well as they did.

Haneda (2005) examined how two Canadian university students, Jim and Edward, invested in writing in Japanese as a foreign language. Both students studied in the same Japanese-as-a-foreign-language class at an advanced level and were also reported to have equivalent Japanese proficiency in speech and writing. Based on data derived from semi-structured interviews and writing samples, Haneda found that, although both students valued the importance of improving their Japanese writing skills, Jim paid attention to all linguistic aspects of his writing, whilst Edward did not attend to the subtlety of Japanese and the variety of rhetorical strategies available in the language. Jim reported that he had been determined to be a high school English teacher, considered himself to be a strong writer in English, and tried to push himself to reach the highest standard of writing, even when writing in Japanese. From Haneda's interpretation, Jim's linguistic investment reflected his desired identity as an academic, who sought membership of an imagined community of high school language teachers where a mastery of language was valued. For Edward, his motive for improving his writing was related to its by-product, i.e. acquiring sufficient language skills useful for future communication in an international business setting. He reported having aimed to be a successful business executive in a multinational company with the belief that he could have a secretary to help handle sophisticated Japanese writing for him. Haneda (2005) interpreted that the two students' engagement in their writing tasks was intricately influenced by their desired identities and their imagined communities.

As can be seen, the three reviewed studies unfold the complexities of learning an L2, which move beyond a perspective of learning an L2 as a mere mastery of linguistic skills (Pavlenko & Norton, 2007). The study by Gao *et al.* (2008) suggests that, to some students, learning an L2 is considered useful not only in surmounting professional goals but also in

fulfilling social and identity aspirations. The study by Renganathan (2005) reveals that learners' decision-making in using or practising their L2 with others can be affected by their constructed identities according to their perceptions of their L2 proficiency. The study by Haneda (2005) illustrates that the projected future of individual learners can have profound impacts on the ways in which learners invest time and energy in learning and practising their L2. Therefore, it could be argued that using the notions of imagined communities and investment (Norton, 2000, 2001) can provide L2 researchers with a more insightful understanding of the nature of L2 learning; this is because L2 learners are not treated as a monolithic group, but as individuals who bring with them personal history, values and interests in learning the target language.

In this section, I have discussed the notions of imagined communities and investment (Norton, 2000, 2001) and reviewed L2 studies that adopt the notions in capturing L2 learning experiences in different sociolinguistic contexts. As I have previously mentioned, these two notions are used in augmentation with the notion of communities of practice (Lave & Wenger, 1991; Wenger, 1998) to formulate the theoretical framework of the present study. In the ensuing section, I discuss L2 research on discipline-specific writing, placing emphasis on different types of writing in higher education.

2.4 Discipline-specific Writing in L2

As discussed in Section 1.4, Chapter 1, the theoretical framework of this study draws on the socially situated approach to academic writing in concert with the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001). In the following sub-sections, I will discuss an overview of discipline-specific writing and review representative studies on L2 students' writing experiences in higher education from different educational settings. This will be followed by discussions of issues surrounding dissertation/thesis writing and supervision.

2.4.1 Overview of discipline-specific writing

In the past two decades, a great deal of attention has been given to discipline-specific writing in the literature on English for Academic Purposes (EAP) and English for Specific Purposes (ESP). This is attributed to a continuous increase in the enrolment figures for international students in English-speaking countries, particularly in North American countries (Casanave, 2002; Flowerdew & Peacock, 2001). L2 writing tutors, therefore, play a crucial role in equipping the students with adequate skills to cope with different writing tasks, such as course assignments, research proposals, and dissertations/theses. A large

number of L2 writing studies have been conducted to yield pedagogical implications for L2 writing tutors. Since the early 1990s, writing researchers have begun to apply the socially-oriented approach to academic writing in order to investigate the nature of L2 academic writing in specific disciplines. Many researchers (e.g. Angelova & Riazantseva, 1999; Casanave, 2004; Grabe & Kaplan, 1996; Hyland, 2002a) observe that this research trend has emerged as a reaction to the product approach to L2 writing, which considers a written text as an autonomous object, and a process approach which regards writing as a cognitive process.

From the perspective that writing is an autonomous object, writing research is informed by structural linguistics and behaviouralist psychology (Matsuda, 2003). Research following this tradition focuses on text analyses in order to identify rules and principles of written texts, ignoring the context where texts are produced and used. Teaching pedagogy, therefore, involves a tutor presenting a model text which has been analysed, and a student practising writing of a similar or parallel text (Dudley-Evans & St. John, 1998; Ferris & Hedgcock, 2005). In terms of the process-oriented approach to writing, which is influenced by cognitive psychology, writing is viewed as a recursive, not uninterrupted process (Zamel, 1983). Areas of research interest in this tradition include L2 students' use of planning, editing, and revising strategies, and the effects of teacher and peer feedback on the students' text. Based on her survey of research on L2 writing as a process, Krapels (1991) summarises that research data are usually collected by direct observations of student writing processes, audio-taped or video-taped protocols based on composing-aloud sessions, and retrospective accounts of composing obtained from interviews or questionnaires. Pedagogical activities usually include students preparing an outline, translating the outline into sentences and then paragraphs, and revising and editing the draft. Very often, peer review and group work are employed in the writing class in order to help students foster the skills of revising and editing their work.

With the rapid development of research on ESP and EAP during the past few decades, writing researchers (e.g. Casanave, 1995, 2002, 2003; Horowitz, 1986; Leki & Carson, 1997; Swales, 1990) have questioned whether the product and the process approaches to L2 writing research can adequately provide ESP/EAP tutors with pedagogical implications for preparing L2 students to cope with the demands of writing in their disciplinary courses at the tertiary level. Criticism has been expressed that both approaches gloss over the needs of L2 students in learning how to negotiate the expectations of their socio-academic community, such as readerships, and other outside forces which define, shape, and

ultimately evaluate the students' writing products. This has given rise to the socially-oriented approach to L2 writing research.

As briefly discussed in Section 1.4, Chapter 1, the socially-oriented approach to discipline-specific writing research consists of two major orientations, both of which are collectively referred to by Casanave (2004) as 'genre studies'. Citing Hyland (2002c), Johns (2002), Miller (1984), and Swales (1990), Casanave (2004) has summarised that genre studies focus on "the features of written products, but with a social context thrown in, in that genres are produced for social purposes of communication within groups that share purposes, understandings, and ways of using language" (p. 82). As Casanave (2004) has noted, there are two fundamental types of genre studies: a textual or linguistic focus, and a contextual or socially situated focus. One line of genre studies with a textual focus aims to identify the salient features of different genres, or explicit recurrent features of texts produced by experts of a given discipline-specific community, in order to provide a writing model to novice writers. Swales' (1990) model for research article introductions, based on genre analysis, is a well-known example. He proposes a three-move structure, which includes establishing a territory, establishing a niche, and occupying the niche. The proliferation of research on academic and professional genres (e.g. Connor & Mauranen, 1999; Dudley-Evans, 1994; Hyland, 2000; Parkinson & Adendorff, 2004) has led to genre-based teaching in an EAP/ESP curriculum in different educational contexts (Starfield, 2003). Another parallel line of genre studies with a textual focus deals with survey studies of students' needs in discipline-specific writing support and the types of writing tasks that university students are required to handle on their programmes of studies (e.g. Bacha & Bahous, 2008; Cheng *et al.,* 2004; Jenkins *et al.,* 1993). Braine (1995), for example, analysed and classified writing assignments from the disciplines of sciences and engineering collected from seventeen courses at one North American university. Pedagogical implications suggested by this line of inquiry are concerned with developing a writing curriculum that meets the students' writing needs, and teaching specific writing tasks that the students are required to handle in their discipline-specific courses.

Although writing researchers adopting a textual focus provide insightful implications for teaching the explicit textual forms and functions of the genres of particular disciplines, several researchers have shifted their research emphasis to the social context of writing in specific communities. Casanave (2004) has noted that genre studies with a contextual or socially situated focus are more descriptive of people and situations with less emphasis on linguistic features. Researchers following this line of inquiry (e.g. Casanave, 1995, 1998, 2002; Freedman *et al.,* 1994) argue that novice writers can improve their ability to control

genres by actually engaging in the writing and other related academic literacy practices of different communities of practice (Lave & Wenger, 1991; Wenger, 1998). Angelova and Riazantseva (1999) have advocated that, although genre studies with a textual focus provide writing tutors with an insightful understanding of linguistic features that might be difficult for L2 students to acquire, those studies do not explicate why it is difficult for these L2 students to learn how to use specific text genres. Writing researchers (e.g. Belcher, 1994; Casanave, 1995, 2002, 2004; Prior 1995, 1998) have also argued that, to understand how novice writers produce their texts, researchers should explore the writers' personal history, their interactions with other more experienced writers of their community, and the social context of text production. Since this study has adopted this socially situated approach to researching discipline-specific writing in L2, I review representative studies aligned to this research approach in the ensuing sub-section.

2.4.2 Research on L2 students' writing experiences in higher education

More recently, L2 researchers interested in discipline-specific writing have explored the writing experiences of L2 students as they engage in different writing tasks. They have placed critical emphasis on the contexts in which writing tasks take place and the writing experiences of L2 students in the initial stages of developing discipline-specific discourses. For example, Yui (2009) explored how two undergraduate students at a Hong Kong university negotiated the demands of writing their course assignments in marketing. Petri (2007) examined the challenges of academic writing encountered by master's students from different European countries at one English-medium university in central Europe, whilst Li (2006, 2007) and Huang (2010) examined how doctoral students in mainland China and Taiwan learned to write their research papers for publication. In Anglophone countries, Jiang (2001), Johanson (2001), and Phusawisot (2003) investigated the writing experiences of doctoral students as they wrote their term papers at universities in the US. Findings from these interpretive, qualitative studies reveal that learning to write in a given discipline is a complex process, which encompasses not only a mastery of linguistic knowledge but also an understanding of the writing expectations of the local, immediate academic community.

Two studies (Casanave, 1995; Riazi, 1997) are worth reviewing because they have profound influences on subsequent studies on discipline-specific writing. Casanave (1995) investigated how twelve doctoral L2 students in sociology learned to write assignments for a core sociology course at a university in the US. The study revealed that the students constructed their writing contexts by drawing on different sources: people who they interacted with, the system of training in their required core courses, and specific writing

tasks assigned. For instance, the students' learning and writing practices were found to be influenced by their professors who brought with them different personal histories, value systems, expectations, and definitions of the field. They tried to meet the local writing requirements by making use of different coping strategies, interactions with other members of the community, and negotiation of conflicts, tensions, and identities within local writing contexts. Based on her study, Casanave (1995) has argued that, in studying situated writing, rather than focusing on the global factors of the disciplinary community, researchers should place critical emphasis on examining the immediate, local, and interactive factors that directly touch students' lives during the process of constructing their writing contexts.

Another situated study by Riazi (1997), although carried out more than a decade ago, has been widely cited and has left a lasting impression. The study investigated the writing experiences of four Iranian doctoral students at a Canadian university. Findings, primarily derived from interview data with the students, revealed that, in writing their assignments, the students were well aware of the writing expectations of their local, immediate academic community, particularly those of their course tutors. When the students were uncertain about the writing tasks, they appealed for clarification by discussing with their course tutors and course colleagues, and consulting assignments previously completed by other students. When their assignments involved unfamiliar genres, they rationalised appropriate writing formats and conventions by searching for writing models, including published papers and friends' writings. As Riazi (1997) claimed, these students were engaged in 'implicit genre analysis'. One student, in particular, located writings completed by his course tutor and learned how to write by imitating his tutor's writing style. The strategy that this student used was also known as 'Professorial Discourse Analysis', a coping strategy termed by Villanueva (1993), in his often-cited literacy autobiography. As Villanueva (1993, p.71) explains: "…go to the library; see what the course's professor had published; try to discern a pattern to her writing; try to mimic the pattern. Some would begin with anecdotes. What they did, I would do too."

Findings from the studies by Casanave (1995) and Riazi (1997) have provided an analytical framework for exploring L2 students' writing experiences in different socio-educational settings. Informed by their studies, many subsequent researchers unfold L2 students' writing experiences in natural settings by scrutinising how the students negotiate the writing demands through their making use of available linguistic resources and their socio-academic interactions with other members of their academic communities. A recent case study of two Cantonese students' writing experiences by Yui (2009) is a good example of interpretive, qualitative research investigating discipline-specific writing at an undergraduate level.

Mainly based upon a series of semi-structured interviews with the students, the study explored how the students wrote their assignments in English for different Marketing courses at an English-medium university in Hong Kong. Findings showed that, during their writing preparation process, both students made efforts to accommodate their course tutors' expectations of the assignments. It is interesting to find that, whilst the students reported that task specifications for their assignments were often unclear, they considered consultations with their course tutors as a last resort. This was because they found it difficult to approach the tutors after class due to the tutors' tight teaching schedules. To clarify task specifications of their assignments, the students therefore adhered to assessment criteria, discussed with classmates, and looked for hints during lectures. Findings also revealed that, in composing their assignments, the students relied heavily on information from various websites and often copied chunks of texts without proper in-text referencing. Yui argued that the students' inappropriate use of source texts was mainly due to the students' lack of English proficiency to paraphrase and synthesise source texts. This was compounded by the lack of feedback on their previous writing assignments from their course tutors pointing out their inappropriate textual practices.

Another compelling case study was conducted by Hu (2000). The data were collected through semi-structured interviews and follow-up conversations with seven master's students and another eight doctoral students, all of whom were from mainland China, who were completing their degrees in different departments in the disciplines of science and engineering at an English-medium university in Canada. The students reported that they had developed the knowledge of the rhetorical argumentation and organisation of their own assignments through reading multiple article journals in their fields. Although all students reported that they were well aware of plagiarism in academic writing, most of them mentioned that, in composing their assignments, they had copied from various source texts in varying degrees ranging from short expressions to stretches of several sentences. The students' major reasons for copying source texts were quite similar to those reported by the students in Yui's (2009) study. Firstly, they could not paraphrase source texts appropriately because they were not confident in their English and were pressed for time. Secondly, for some students, when they received assignments back from their course tutors, they found that their tutors did not make any comments on their textual copying practice. They, therefore, assumed that this textual practice was acceptable by their tutors.

Phusawisot (2003) explored the experiences of three Thai doctoral students from two universities in the US, as they wrote term papers in linguistics and applied linguistics over a period of five semesters. All students also completed their master's degree in linguistics or

applied linguistics from universities in the US and had experienced working as tutors of English in Thai universities. The findings derived from a series of interviews revealed that, at the beginning of the programmes, the students had difficulties in writing their term papers that met the expectations of their disciplines at the doctoral level, including findings, appropriate topics, accommodating course tutors' expectations, and using appropriate rhetorical argumentation. They later gradually adjusted to the writing demands in their disciplines primarily because they received useful suggestions from their interactions with different individuals. For example, all reported having formed a study group with their classmates to discuss the assigned readings and writing assignments. Some students reported that they were hesitant about meeting with their course tutors to discuss their writing at the beginning of their studies on the programmes. They later felt very comfortable at turning to their tutors for writing consultations because they were encouraged by them to do so. The students also reported having benefited from seeking feedback on their writing from American and international classmates and friends from other departments.

Findings from Phusawisot's (2003) study corroborate those from Jiang's (2001) study and Johanson's (2001) study in that the students were aware of the writing expectations of their academic communities. In dealing with the demands of writing their course assignments, most of the students from Jiang's (2001) study and Johanson's (2001) study mentioned that they had benefited from discussing their writing with other members of their courses and course tutors. However, these students, to a certain extent, were different from those from Yui's (2009) study and Hu's (2000) study in that they did not mention serious difficulties about the linguistic aspects of writing. This may be because all of them had a higher English proficiency than the students from the studies by Yui (2009) and Hu (2000). From the educational background of the students provided by Jiang (2001), Johanson (2001), and Phusawisot (2003), it was found that they were all doctoral students, received a high score on the TOEFL exam, and studied in English language-related fields. Most of them completed their master's degree in the US and had experiences in teaching English as a foreign language in their home countries. Since their educational and professional background was concerned with language education, it could be said that these students may have had a better control over writing in English and were more aware of the use of source texts in their writing, compared to the students from Yui's (2009) study and Hu's (2000) study.

Apart from research on L2 students' experiences in writing course assignments, another line of inquiry concerns writing for publication by doctoral students. Several studies can effectively unpack the social aspects of L2 writing. Huang (2010), for example, investigated

eleven Taiwanese doctoral/post-doctoral students' perceptions of publishing and learning to write for publication in English. All students were recruited from science disciplines. Of eleven students, one post-doctoral student completed his doctoral and post-doctoral studies in the US whilst the others were educated only in Taiwan. Findings showed that, as L2 writers, the students considered themselves as disadvantaged due to their limited English. Nevertheless, most students were not motivated to attend English writing courses to improve their writing due to their tight schedules for lab work. Many also reported their lack of confidence in the writing curricula provided by their university, whereas some mentioned that their university did not offer academic writing courses gearing towards scientific writing to postgraduate students. To write their research papers, the students primarily depended on their current English knowledge and assistance from their supervisors, who sometimes wrote certain parts of the papers for them. They also relied on professional proofreaders as major sources of language help.

Another study by Li (2007) explored how a Chinese doctoral student in chemistry, referred to as Yuan, wrote an academic paper for publication in English, which was a graduation requirement stipulated by his university, which was a Chinese-medium university. Findings revealed that, in completing his paper, Yuan interacted with both the local research community and the global specialist research community. At the local research community, Yuan discussed with other members of his research group and his supervisor in order to identify the focus of his paper as well as the strengths of the lab data. At the global specialist research community, Yuan sought textual membership by learning from literature on his field. Through his reading, he imitated the rhetorical structures of journal articles used by well-known writers. Like students in Hu's (2000) study and Yui's (2009) study, Yuan also borrowed expressions and sentences from the literature in order to reuse them in his writing.

It is important to note that most of the 'text shapers' (Li & Flowerdew, 2007), or people who provide language assistance to novice writers, as reported in the study by Huang (2010) and that by Li (2007), are found to be non-native speakers of English. However, in Cho's (2004) study of L2 doctoral students' experiences in writing for publication, she found that, as the research site was a university in the US, the students had opportunities to co-author academic papers with their supervisors or course colleagues who were native speakers of English. The students could also seek writing assistance from other members of their social networks who may be native speakers of English or international users of English with high English proficiency. Based on their interviews with eight Chinese doctoral students from science disciplines at a university in China, Li and Flowerdew (2007) found that, when the students prepared papers in English for publication, they received writing assistance mainly

from their thesis supervisors. Some students also sought language help from their peers and their previous Chinese tutors of English. The study pointed out that these students were placed in a linguistically less advantageous setting, compared to their counterparts who studied in Anglophone countries such as those from Cho's (2004) study, in that almost all of their text shapers were also Chinese.

The reviewed studies have provided an overview of L2 students' experiences in discipline-specific writing. Collectively, they accounted for the ways in which the students negotiated writing tasks and contexts using certain literacy practices. It can be seen that the local, immediate, interactive contexts, as Casanave (1995) has argued, had profound influences on the students' writing practices. The students sought suggestions from other members of their academic communities, including course tutors, thesis supervisors, peers, and language tutors. In certain educational contexts of text productions, such as in Hong Kong (Yui, 2009), Taiwan (Huang, 2010), and mainland China (Li, 2007; Li & Flowerdew, 2007), the students appeared to be placed in linguistically less advantageous environments where they had fewer opportunities to gain access to native-English speakers and other international users of English, who may be able to provide them with language assistance, as compared to those who studied in Anglophone countries as reported by Jiang (2001), Johanson (2001), Phusawisot (2003), and Cho (2004). A worse situation could be when some universities in the EFL context, as reported by Huang (2010), did not offer any academic writing courses to the students. Another important issue was concerned with the students' interpretations of their writing tasks and the expectations of their academic communities. The studies by Phusawisot (2003), Riazi (1997) and Yui (2009), for example, showed that, when the students were uncertain about their assigned writing tasks, they appealed for further clarification by discussing the tasks with other people. Due to their language proficiency and their course tutors' expectations, some students, as reported by Yui (2009) and Hu (2000), reused source texts in their writing without proper in-text citation and paraphrasing.

In this sub-section, I have discussed the evolving terrain of L2 research on discipline-specific writing. I have also reviewed representative studies of L2 students' writing experiences in different socio-linguistic contexts. In the following sub-section, I discuss issues surrounding postgraduate students' experiences as they undergo the process of dissertation/thesis writing and supervision.

2.4.3 Dissertation/thesis writing and supervision

Recent studies of L2 writing and academic literacy have thrown light on postgraduate students' experiences in completing their dissertation/thesis. Writing researchers and tutors

have recognised that the students, by virtue of their expertise in their discipline, require more than the ability to read and write in order to complete their dissertation/thesis. Apart from being able to manipulate language at an acceptable level, the students may also wrestle with the tacit expectations and unwritten rules of dissertation/thesis supervision in their academic communities. This sub-section discusses the experiences of L2 students as they undergo the process of dissertation/thesis writing and supervision. It also reviews issues surrounding supervision support offered to postgraduate students in different educational contexts.

One line of inquiry investigating the challenges of L2 students in writing their dissertation/thesis focuses on language-related difficulties at sentence and paragraph levels. Examples are survey studies by Casanave and Hubbard (1992), Cooley and Lewkowicz (1997), and Dong (1998). These studies have collectively revealed that L2 students had problems concerning grammatical accuracy, vocabulary appropriateness, idea development, and appropriate writing styles. Another line of study (e.g. Parry, 1998; Tardy, 2005; Thompson, 1999) has examined L2 students' writing difficulties from a more socially situated perspective. These studies have found that L2 students encountered challenges in structuring an argument over an extended stretch of discourse with consistency and in considering appropriate content for individual sections of the dissertation/thesis. Belcher (1994), Paltridge (2002) and Swales (2004) have advocated that these problems are attributed to the students' limited knowledge of the dissertation genre and of their supervisors' expectations.

Informed by the socially situated approach to writing research, as discussed in the preceding sub-sections, more recent studies have explored L2 students' dissertation/thesis writing experiences by paying critical attention to the local context of writing and the students' interactions with other members of their academic communities. For example, Chang (2006) interviewed six Chinese students who were completing their master's dissertation at a university in New Zealand. Of the six students, five reported that the most challenging aspect of writing their dissertation in English was attributed to their limited English proficiency. Having a limited linguistic repertoire, they could not express their ideas succinctly and clearly. The students expected the university to be responsible for providing more language support to international students. Although the university offered certain writing workshops, the students reported that they were not satisfied with those services. They perceived that the available workshops were not geared towards dissertation writing, but general writing skills. Five students also mentioned that they had received adequate research and language support from their supervisors. One student recounted that he was

required to apply for a further extension of his study because he could not complete his dissertation in time. This was due to the fact that his supervisor often delayed in providing feedback on his work.

While the study by Chang (2006) examined the students' writing experiences of the whole process of dissertation writing, Bitchener and Basturkmen (2006) focused their study on the students' writing experiences on the discussion of the results section of the master's dissertation. They collected data by interviewing four student-supervisor pairs from two universities in New Zealand: two Chinese students, one Korean student, one Eastern European student, and their respective dissertation supervisor. Findings revealed that the students tended to use their limited English proficiency as a default mode to explain their writing difficulties. Although the supervisors were aware of their students' language proficiency, three of them reported that their students' writing difficulties were more related to their inadequate understanding of the functions of the discussion section. As reported by the supervisors, when writing their dissertations, the students could not sufficiently provide the link between the results of their studies and the existing literature on the fields.

Krase (2007) examined the challenges that a Korean student encountered as she worked on her master's dissertation at an American university. Interview data revealed that, although the student was considered to have a high writing performance, she struggled to establish a good working relationship with her supervisor. This resulted in the student having a difficult time in completing her dissertation. The tension during the supervision process was primarily due to their different expectations of the supervision process. That is, whilst the student wanted her supervisor to be more direct in guiding her research design and other research-related aspects, the supervisor expected the students to be more self-dependent. The study pointed out that this problem had been rooted in the lack of communication between the student and her supervisor. Another issue raised by the study was that, due to the supervisor's busy academic schedule, she did not seem to be able to provide adequate academic and pastoral support to her student.

More recently, Kwan (2009) conducted multiple-case studies of students' reading in preparation for writing their doctoral thesis in English. Main data were collected through an individual interview with Hong Kong-based Chinese doctoral students of social sciences and humanities. The students reported that, at different stages of their research, their thesis supervisors, and occasionally panel members (thesis committee), had acted as pivotal sources of input for key reading lists. The supervisors also helped their students to find links between the literature and their research project. Some students, however, were not given

'close coaching on reading' by their supervisors, particularly those who supervised many students. Many students also consulted external mentors, such as visiting scholars and supervisors' collaborators. One student mentioned that his reading list grew out from his communication with an overseas theorist whose theoretical work informed his study. Kwan (2009) concluded that, rather than viewing reading by research students as an autonomous practice, it should be regarded as socially mediated.

Attempts have also been made in order to help L2 students negotiate the demands of writing the dissertation/thesis in English. There has been a large collection of books on dissertation/thesis writing available on the market for postgraduate students. Unfortunately, most of these commercially available self-help manuals for dissertation/thesis writing seem to be overly generic (Allison *et al,* 1998; Belcher, 1994) and, thus, may not provide effective support to guide student writers in terms of their needs in discipline-specific writing. Paltridge (2002) explored published handbooks for dissertation/thesis writing, and dissertations/theses written by students from different fields of studies at an Australian university. Findings from his study showed that only a few handbooks examined touched upon the organisation and structure of dissertations/theses relevant to sample dissertations/theses under investigation.

Several universities in Anglophone countries have taken initiatives in providing writing support to their international students. Woodward-Kron (2007), for example, reported on her role as a language advisor in providing writing support to L2 students at an Australian university. Based on an analysis of the audio-recorded transcript of her consultation session, she analysed the characteristics of a one-on-one dissertation writing consultation between her and an international student who was working on a master's dissertation in public health. She reported that the one-on-one consultation was a dynamic exchange during which a range of meanings were negotiated. This face-to-face consultation provided her with an opportunity to ask the student to clarify unclear points of her dissertation draft. It also allowed the student to discuss the supervisor's comments on the dissertation draft, resulting in the student better understanding the expectations of her supervisor. Due to the interactive nature of the consultation, when she suggested changes to the draft, whether about language or content, this one-on-one session also allowed her and the student to negotiate such changes. She concluded that a one-on-one writing consultation was worth implementing, although it was often regarded by universities as uneconomical.

In many educational institutions, dissertation/thesis writing support programmes have also been established. Allison *et al.* (1998) described and evaluated a programme aiming at

developing skills necessary for dissertation writing in English at one university in Hong Kong. The programme was evaluated by means of data collected from interviews with postgraduate supervisors, students' questionnaires as well as an analysis of students' writing. It was found that students had positive reactions to the programme and found it useful. The study concluded that there was an obvious need for a writing programme to be part of postgraduate studies. The researchers, however, pointed out that it was very difficult for EAP tutors to teach the students with the particular subject-matter needs to write. This is because it could impose considerable demands on EAP tutors who were not subject specialists. Additionally, different disciplinary areas also had different evaluative criteria or expectations on their students.

Paltridge (2003), Skillen and Purser (2003), and Starfield (2003) also discussed how dissertation/thesis writing support programmes were initiated in different Australian universities. The programme described by Paltridge (2003), for example, was informed by different perspectives from previous work on dissertation writing. The programme was aimed at familiarising the MEd in TESOL students with the conventions and expectations of the TESOL academic genre, in addition to introducing them to strategies for writing their dissertations. The course participants revealed that they had benefited from learning how to write to meet the expectations of their academic discipline and also appreciated an opportunity to discuss their academic writing with other peers in small groups. The students' attitudes towards the course implied that they learned not only from what they were formally taught, but also from interactions with their course colleagues.

Another dissertation/thesis writing support programme described by Skillen and Purser (2003) was established on a basis of collaborations between tutors from different faculties and EAP tutors by identifying common types of research in particular disciplines, and analysing discourse structure and grammatical patterns of theses. The teaching strategies used were balanced between generic and lexico-grammatical features of thesis texts, and the products and process of thesis writing. They proposed that such collaboration was useful in assisting students in understanding the linguistic requirements of writing a thesis.

It is possible to say that not only L2 students but also native-English speaking postgraduates need writing support for dissertation/thesis writing. This has been raised by Starfield's (2003) discussion on a dissertation/thesis writing course for master's and doctoral students in arts and social sciences. The emphasis of the course was to help students recognise the rhetorical structure of the dissertation/thesis genre by providing discipline-specific advice from authentic examples rather than providing generic perspectives about writing. When the

course progressed, Starfield's (2003) perceived that the needs for dissertation/thesis writing support were not confined to L2 students. Initially, the course was intended only for L2 students, but later native-English speaking students also found it useful. This asserts Paltridge's (2003) postulation in that writing a dissertation in English is a difficult process for both non-native and native speakers of English. Non-native students' writing problems, however, can be intensified due to their linguistic constraints and unfamiliar contexts where their studies are supervised by those who do not share the same linguistic and cultural backgrounds.

In this section, I have discussed the theoretical perspectives of academic writing in L2 as well as empirical studies on writing course assignments, writing academic papers for publication, and writing a dissertation/thesis. On one level, the literature review has revealed a range of writing challenges that L2 students had encountered, including their lack of control over writing due to their limited English proficiency, inadequate language support offered by the university, their inability to establish a good working relationship with their supervisor, insufficient academic support from course tutors or supervisors, and their lack of language assistance from native speakers of English. On another level, the literature review has firmly informed me that the students' writing practices varied from one context to another, corroborating the social perspectives of academic writing in that the local, immediate, interactive factors had profound influences on L2 writers' experiences (Belcher, 1994; Casanave, 1995, 1998, 2002). Despite a growing body of studies exploring L2 students' engagement in academic writing and dissertation/thesis writing, as I have previously reviewed, most of them were conducted in English-medium universities in Anglophone countries. The writing contexts of those studies are clearly different from the writing contexts in Thai-medium universities. For example, Thai students do not seem to have an opportunity to engage in English academic literacy in their daily life. Their course tutors and supervisors are also native speakers of Thai. They also lack an opportunity to seek writing assistance from native speakers of English or other international users of English, as some students in the reviewed studies did. As Thai postgraduate students who do not major in English language are not required to attend any English course as part of their degree programme, Thai universities appear to offer only a few English courses at the postgraduate level. Most of the English courses on offer at the postgraduate level seem to focus on general language skills, rather than writing skills. Considering the context of the Faculty of Science, Central Bangkok University, which is the research site of this study (see Chapter 4), it is clear that the context of dissertation writing is very socio-linguistically unique. In order to insightfully understand how Thai students at the Faculty of Science,

Central Bangkok University, cope with the demands of writing their dissertation in English, it is imperative to conduct situated research on these students' writing experiences. This would yield the most context-relevant pedagogical implications for dissertation writing support for prospective students of this faculty. Therefore, the notion of communities of practice (Lave & Wenger, 1991; Wenger, 1998), which provides a framework for capturing learning as initiated in a local, immediate context, is chosen to serve as a framework of this study.

There is another niche in the reviewed literature. While the literature has informed about L2 students' writing experiences, it has glossed over the issues surrounding the students' motives for writing a course assignment, an academic paper for publication, or a dissertation/thesis in English. This issue may be overlooked by previous L2 writing researchers, especially for those who are based in an English-medium university where all students are obliged to complete their writing tasks only in English. However, at the Faculty of Science, Central Bangkok University, except for the master's programme in petrochemistry and polymer science, students are allowed to choose to write their dissertation either in Thai or in English. Many of them opt for English. This raises the intriguing question of what inspires them to choose to burden themselves with writing in English, which could possibly be more linguistically demanding than writing in Thai, their L1. In other words, to use the term introduced to the field of applied linguistics by Norton (2000, 2001), this study endeavours to understand why master's students in science at Central Bangkok University 'invest' in writing their dissertation in English.

2.5 Chapter Summary

This chapter has articulated the theoretical framework of this study, which draws on the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001). The chapter has also discussed the development of L2 research on discipline-specific writing and reviewed empirical writing studies carried out in different educational settings. The chapter has also reviewed empirical studies on dissertation/thesis writing experiences of L2 students as well as different types of institutional support for dissertation/thesis writing. In the ensuing chapter, I discuss the research methodology of the present study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology and design of the study. I first provide a rationale for adopting an interpretive paradigm and a qualitative case study design to explore the dissertation writing experiences of Thai students in the discipline of science at a Thai university. This will be followed by an overview of the pilot study, focusing on its implications for the main study. I then explain the process in which the main study developed by presenting the research site, research participants, data collection procedures and data analysis. The establishment of trustworthiness and ethical considerations are also discussed.

3.2 Research Paradigm and Design

Prior to subscribing to any particular research design, researchers are obliged to understand the set of assumptions they bring to their inquiries. In the following sections, I first discuss my personal and theoretical stances that informed the research paradigm of this study. This will be followed by the rationale for adopting the qualitative case study design for this study.

3.2.1 Personal and theoretical assumptions

Researchers approach their research with a 'worldview', a basic set of beliefs or assumptions that guides their inquiry (Creswell, 1998). This worldview has profound implications for framing the research, especially in the initial stages of design. To undertake this research, the assumption that operated at a theoretical level in shaping the research design was informed by, and was also in parallel to, my own worldview or subjective assumption. Based upon my academic and professional experiences as an L2 student writer and teacher, I found that different individuals, including my students, colleagues, and me, perceived the nature of academic writing in different ways. There is also support in the literature with numerous studies that note this issue, as previously discussed in Chapter 2. Building upon my own experiences and the literature, my personal assumption of academic

writing challenges was that different people hold different interpretations of academic writing challenges or of the 'nature of reality' (Mason, 2002).

In response to my personal view of the nature of reality, it was vital to include different perspectives from those who were really engaged in the process of dissertation writing and literacy practices when conducting this research. This view of the nature of reality is aligned well with the 'interpretive' or 'naturalistic paradigm'. The interpretive paradigm argues that the social world should be understood from the 'emic' perspective, which is the standpoint of those who are part of the ongoing action being investigated (Cohen *et al*., 2000; Glesne & Peshkin, 1992). Drawing on the works of Lincoln and Guba (1985, 2000), Neuman (2000) and Schwandt (2000), Bloomberg and Volpe (2008) summarise the theoretical assumption of the interpretive paradigm as follows: a) reality is socially constructed, b) individuals develop subjective meanings of their own personal experiences, and c) meanings are multiple.

The premises of the interpretive paradigm helped clarify my role as a researcher when I was designing this research. First, I needed to understand the 'multiple realities' from research participants' perspectives (Bloomberg & Volpe, 2008) because the meanings are subjective and multiple. Second, I had to acknowledge my own bias and interpretations or meanings, because the reality or a knowledge claim as a result of the research is 'socially constructed' (Bloomberg & Volpe, 2008; Cohen *et al*., 2000; Flick, 2002). This means that a knowledge claim is fabricated, not only by different research participants, but also by me as a researcher. Therefore, I was aware that my subjectivity would have a direct impact on the quality of research design and subsequent research findings. This is because interpretive research design is prone to bias, for the researcher serves as 'a primary instrument' for data collection and interpretation (Bogdan & Biklen, 2003; Janesick, 2000).

3.2.2 Qualitative research and case study design

Personal and theoretical perspectives, as previously discussed, informed my decision making in choosing the appropriate research approach for this study. Following the interpretive paradigm, this study adopted the qualitative approach. Creswell (1998) advocates that researchers use the qualitative approach when they aim to study individuals' lived experiences in their natural setting. Dezin and Lincoln (2005) define qualitative research as a situated activity that locates the researcher in the real world. They also suggest that the qualitative researcher use different interpretive practices such as interviews, conversation, and recordings to study things in their natural setting with an attempt to make sense of phenomena based upon the views that people hold. The characteristics of the

qualitative research approach, as conceptualised by Creswell (1998) and Dezin and Lincoln (2005), are also shared by other leading scholars from the social sciences. For example, Bogdan and Biklen (2003), Flick (2002), and Merriam (1998) emphasise the importance of actual settings as sources of data, the engagement of the researcher during the research process, the participants' multiple perspectives, and the assimilation of the researcher's own interpretations. As can be seen, the qualitative research approach not only resonates with the theoretical assumptions of the interpretive paradigm, but also suggests how the nature of reality, or what the researcher wants to understand, can be achieved methodologically.

To design this study, I also used a case study method situated within the interpretive, qualitative paradigm. A case study is an intensive description and analysis of the particularity and complexity of an individual unit or case in its real-life context (Berg, 2004; Cohen *et al.*, 2000; Stake 1995, 2001, 2005). A case serves as a unit of analysis which was defined by Merriam (1998) as a single instance, phenomenon, or social unit. This study applied a multiple case study design (Stake, 1995; Yin, 2003), where five individual cases collectively constituted a larger case. The boundary of an individual case was identified on the basis of a socio-academic relationship (Krase, 2007; Leki, 2006, 2007) between student participant and her/his paired dissertation supervisor. Each single case, therefore, consisted of a focal student participant and a paired dissertation supervisor. Although the study dealt with five individual cases and presented them collectively through the lens of cross-case analysis, it also portrayed each individual case with its unique characteristics and context. This would help paint a more realistic picture of the student participants' varying experiences as pertaining to their own personal histories and writing practices.

3.2.3 Justification of the research design

Following the theoretical and methodological framework previously discussed, I made a decision to use the interpretive, qualitative case study method in this research project. This decision derived from the nature of the study. With its focus on the students' writing experiences, I needed a research design that would afford ample opportunity to explore the experiences in detail in their real-life writing settings. In the field of L2 writing, several researchers (e.g. Casanave, 2002; Hyland, 2002a; Jiang, 2001; Leki, 2007) have also advocated that the qualitative case study is an effective method for gaining an insightful understanding of how and why people write because it aims to gather naturally-occurring data under normal conditions from various sources. My justification for choosing the qualitative case study method for the present study can be further explained in more detail based upon its strengths, as previously mentioned, and other pedagogical purposes.

First, the qualitative case study allowed me to collect 'in-depth data' contributing to my gaining insight into the students' writing experiences. In order to capture 'the experiences,' I realised that the best sources of data were the student writers themselves. Other important sources of data were the students' dissertation supervisors because their supervision seemed to have directly impinged on how the students negotiated with the demands of writing. Since a qualitative case study focuses on collecting data from a small number of participants (Dezin & Lincoln, 2005; Yin, 2003), I was able to spend plenty of time with each of the students and the supervisors in order to draw in-depth data from them. Apart from the issue of time allotment to each research participant, the qualitative case study also allowed me to use different types of qualitative tools in collecting the research data. In this study, I used the semi-structured interview as a main research tool for gaining 'thick descriptions' of the students' experiences. I also used collaborative conversations to collect additional data in order to augment those collected via the semi-structured interview (see Section 3.5 for details.). These two research tools had the potential to extract rich data directly from the participants' own words and points of view (Kvale, 1996), resulting in my receiving valid data. I was aware that using quantitative research methods to collect data concerning 'experiences' could not yield rich data as the qualitative case study could. For example, I did not choose a survey study using a questionnaire, although it could have provided me with a large pool of data from a large number of students. Due to the survey questions being pre-determined (Cohen *et al.*, 2000), I was aware that if I overlooked certain important issues whilst preparing the questions, I could have received only superficial and inadequate data from the respondents.

Secondly, I placed a great deal of emphasis on collecting data in "their natural setting." Whilst choosing the research design for this study, I had certain background information on the nature of dissertation writing. My own experience as an L2 student writing my dissertation in English and my extensive review of the L2 writing literature informed me that the dissertation writing process is complicated, particularly when the student writes in a second or foreign language. Writing a dissertation is not a one-time writing activity, as in writing a short essay or assignment. Rather, it involves the out-of-class production of an extended, high-stakes piece of writing that may span several months. Each dissertation draft may require multiple revisions before the student and the dissertation supervisor are satisfied. The student writers may receive varying degrees of writing support from their supervisors and other members of their academic communities. Having had some background information on dissertation writing, I held the view that I could understand the science students' experiences in writing their dissertations only when the data were

collected under real-life conditions. As previously discussed, I used qualitative research tools, including the semi-structured interview and the collaborative conversation, in collecting the data for this study. The use of a series of interviews and collaborative conversations with the students throughout the four months of my field work provided me with opportunities to gradually, and also effectively, accrue information on the students' writing experiences, whilst he students themselves were also in the process of working on their dissertation drafts, their real-life writing activities. It was the theoretical and methodological framework of the qualitative case study that reminded me of my role as a qualitative researcher. That is, I could not interfere with the students' writing context or manipulate their writing behaviour. Therefore, I was mindful about arranging the schedules for conducting the interviews and the conversations with them. This was to ensure that my research activities would not affect their dissertation writing schedules. I also informed them from the outset of the research project that, as a researcher, I could not help them out as a proofreader of their dissertations. Neither could I provide them with extra writing tutorials. In so doing, I was able to be certain that I had collected valid data - data naturally occurring under real writing situations without being affected by my presence as a researcher.

Finally, the use of qualitative case study in capturing the students' dissertation writing experiences was considered pedagogically useful when this research was completed. As previously discussed, the qualitative case study places emphasis on understanding and describing the role of context in relation to human experiences (Mackey & Gass, 2005; Punch, 2005; van Lier, 2005; Yin, 2003). The research design of this study prompted me to be sensitive to, and then carefully collect, contextual information, such as English language resources and support available on campus, the role of English in their programmes of study, and other academic literacy practices in the faculty of science. Understanding contextual conditions where the students wrote their dissertations could then help me, to a large extent, to effectively unfold how and why they wrote the way they did. The results of this study, with sufficient contextual information, could be used to propose realistic pedagogical implications to the university. In addition, detailed descriptions of the research context would also help readers of this study to consider the applicability of the findings to their own teaching context.

To encapsulate, the design of this study was shaped by the interwoven aspects of the interpretive framework, the qualitative approach, and the case study method. When designing this research, I kept in mind that writing the dissertation was inevitably context-bound, involving the out-of-class production of an extended piece of writing. Using the qualitative case study was considered to be an effective means to validly capture the

students' writing experiences because it prompted me to collect in-depth data from the students' real-life writing situations.

3.3 Research Setting

The study was carried out at the Faculty of Science at Central Bangkok University, a major university in Thailand. The medium of instruction in this university at both undergraduate and postgraduate levels is Thai. The university has recently launched an initiative to promote course tutors to use English for their teaching if they feel ready, but very few do so. There are also a few departments in some faculties that have started to offer a few international/English programmes, mostly at graduate level, to their students, where all courses are delivered in English.

The Faculty of Science offers well-established degree programmes at both undergraduate and graduate levels in 14 departments. Admission procedures to a master's programme vary from programme to programme. In general, applicants are required to attend an academic interview with the programme's committee and sit a written entrance examination concentrating on a chosen specialised area. However, in some programmes candidates are not required to take a written entrance exam because admission is based on undergraduate academic merits and the interview. Apart from the admission procedures pertaining to each programme, all applicants to master's degree programmes are required by the Graduate School to sit the university's in-house English Language Proficiency test (ELP test) administered by the University's Academic Testing Centre (UATC). The ELP test has been claimed by the UATC to be the TOEFL (Test of English as a Foreign Language) paper-based equivalent (Prapphal, 2003; Prapphal & Opanon-amata, 2002). Successful candidates to any programme are expected to attain a minimum score of 450 on the ELP test. Applicants to a master's programme with a score lower than 450 but not lower than 420 may be accepted if the programme's committee agrees, but they will be required to take one English remedial course offered to graduate students by the English Language Teaching Unit (ELTU). An alternative is to re-sit the ELP test, which is administered many times throughout the year, and attain a minimum score of 450 before they can leave their programme of studies. Those who have already obtained a minimum score of 450 do not have to take any compulsory English courses for their graduate studies.

Once accepted to a master's degree in a science (MSc) programme, candidates are registered as full-time students and undertake one to one-and-a-half years of coursework. After completing their coursework, the students can proceed to conduct a supervised research

project, and write up a dissertation. The minimum registration period of an MSc programme is two years with a maximum period of four years.

Although the medium of instruction at a master's level in the Faculty of Science is generally Thai, the Faculty has a policy to encourage its students to write a dissertation in English. Each year, many students choose to write their dissertations in English. The Faculty, however, does not provide any formal English language support to graduate students and their supervisors. The ELTU, whose responsibility it is to teach general English and English for academic purposes to all undergraduate and postgraduate students, does not offer any advanced academic writing or dissertation writing courses to graduate students. The institutional context of this research will be left for discussion in more detail in Sections 4.2 and 4.3.

3.4 The Pilot Study

My major concern in designing this research project was the accessibility of in-depth data. In order to ensure that adequate data could be collected, I conducted the pilot study a month and a half prior to collecting the data for the main study. Its primary purpose was to determine potential problems that may arise during the process of data collection in its natural setting. In the following sub-sections, I provide an overview of the initial research design of the main study, placing emphasis on data collection methods. I then explain how the pilot study was conducted and how it informed my decision in adjusting the initial research design of the main study.

3.4.1 An overview of the initial research design of the main study

The initial research design of the main study was informed by my review of the literature on second/foreign language education and my research training experience in conducting interpretive, qualitative research. Since a case study design was adopted for the study, I planned to collect data from a small number of students, ranging from five to seven in number, in order to gain in-depth information concerning their dissertation writing experiences. These students were required to be in the process of writing their dissertations and be able to complete their dissertations before I left the research site.

I developed a short background questionnaire to collect information about the students' educational background. This would provide me with useful information as a starting point to further explore the students' writing and academic experiences in more detail at the later

stages of data collection. Two main research instruments were planned to be used for collecting in-depth data: 1) individual semi-structured interviews with the students and their paired supervisors; and 2) focus group discussions with the students. Using individual semi-structured interviews was considered as advantageous in collecting data for this study for several reasons, as will be described in detail in Sub-section 3.5.2. Conducting focus group discussions with the students was also perceived to be beneficial in that an important issue concerning writing experiences raised by a member of the group, which may not be covered in the researcher's interview agenda, could trigger contributions from other members (Stewart *et al.*, 2007). This would result in my receiving insightful data for the study. Focus group discussions were scheduled to be held after all interview sessions with the students were completed.

The questions for semi-structured interviews and focus group discussions were developed based upon two major sources: 1) review of the literature on second language writing and academic literacy studies; and 2) a series of e-mail and telephone communication with three students from the master's programmes in mathematics, physics and biology and one dissertation supervisor from biology. As I was based in the UK during the process of designing this research project, employing e-mail and telephone communication was considered to be the most practical. The three students, who served as major sources of information, had completed their dissertations approximately half a year before the pilot study was conducted. Our communication exchanges were aimed at gathering background information about the students' learning experiences on the master's programmes, their preparation for writing their dissertations, and writing difficulties they had encountered. Information obtained from the literature review, the students, and the supervisor was used for formulating three sets of interview questions for the students and one set of interview questions for the supervisors, which were to be subsequently used in the main study.

In addition, other contextual information would also be collected from documents produced by the university, such as a Graduate School Handbook, English course syllabi, and the university's English language teaching policy papers.

3.4.2 Issues raised by the pilot study

The pilot study was conducted a month and a half prior to collecting the data for the main study. Three students volunteered to participate in this pilot study, all of which were in the process of revising the final drafts of their dissertations. They were on the master's programmes from the Faculty of Science, Central Bangkok University, where the main study was also to be undertaken. The main objective of interviewing these participants was

to determine the effectiveness of the interview questions prepared for the main study. Within the confines of time, the students were interviewed for three consecutive days. Each day focused on one set of the interview questions. After all interview sessions with the students were completed, I asked the students for permission to interview their respective dissertation supervisors. One student informed me that his supervisor was away from Thailand for conference participation, while another student disagreed. As a result, I could reach only one supervisor for interviewing. From the interviews with the students and their supervisors, I found that the prepared interview questions could be used to elicit satisfactory data concerning the students' dissertation writing experiences. However, there were two major problems that I had encountered while conducting the pilot study.

Firstly, there was a problem about conducting a focus group interview. After having finished all semi-structured interview sessions with the students, I listed the main findings that had emerged from the interviews and planned to hold a focus group discussion with the students. All of them had been informed about the focus group discussion at the beginning of the study and had agreed to do so. Unfortunately, two students later expressed that they preferred not to attend the focus group discussion. The major reason was that they felt uncomfortable about sharing with the others their less successful writing experiences and issues related to their supervisors' support. As a result, the focus group discussion could not be organised as planned.

Secondly, my concern was about recruiting enough research participants who could recount their experiences of the whole process of their dissertation writing. When I initially contacted the prospective students for the pilot study four months earlier, five students volunteered to take part and they believed that they could have finished or almost finished writing up their dissertations by the time the pilot study would have started. Unfortunately, two students later informed me that they had delayed their dissertation writing due to certain technical problems in running laboratory experiments and some personal problems. As a result, only three students could participate in the pilot study.

3.4.3 Changes made to the initial research design of the main study

Due to the two major problems encountered while conducting the pilot study, certain changes to the initial design of the main study were made. Firstly, I excluded the use of a focus group discussion as a tool for data collection. I was aware that several issues concerning the students' dissertation writing experiences were sensitive. The students, therefore, may not feel comfortable about sharing their experiences, especially their less successful accounts, with other unfamiliar students.

Secondly, I was aware of the challenges of recruiting participants for the main study. As I wanted to have about four to six pairs of students and supervisors in order to gain in-depth data, I had to ensure that I could gain enough pairs of research participants. I also had to ascertain that the students could finish writing their dissertations within the time frame of my research site visit. Details about recruiting the participants will be described in Sub-section 3.5.1.

Finally, I included one more data collection tool which will be referred to as 'collaborative conversations'. I developed the framework of collaborative conversations to use in this study from the concept of ethnographic interviews with field participants (Rossman & Rallis, 2003; David & Sutton, 2004). While conducting the pilot study, I found that my informal conversation with the participants often yielded interesting and insightful information. This raised my awareness that information derived from conversations with research participants could be used to augment information collected from semi-structured interviews so as to improve the trustworthiness of this research project. The concept of collaborative conversations will be discussed in detail in Sub-section 3.5.2.3.

3.5 The Main Study

The overall research methodology of the main study was informed by the theoretical and personal assumptions as previously discussed. The research procedures were slightly changed from the original research design due to some constraints recognised during the pilot study. The following sections present ways in which research participants were recruited, data collection and methods employed, and data analysis conducted.

3.5.1 Research participants

Research participants for this study could be divided into two categories: primary research participants and secondary research participants. The primary research participants were five Thai students undertaking their master's degree in science at Central Bangkok University. They were considered to be 'primary' because the main aim of this research was to understand their own dissertation writing and academic literacy experiences. Therefore, the main source of data was elicited from them. Secondary research participants were the five graduate students' paired supervisors. Data drawn from this cohort of supervisors were secondary and used to augment the data obtained from the student participants. It subsequently yielded insights into the student participants' experiences.

Informed by the interpretive, qualitative perspective as previously explicated, this study recruited a small number of research participants. As such, an insightful understanding of the student participants' experiences could be successfully gained. Initially, I planned to have five to eight pairs of student-supervisor participants. I was aware that some students may withdraw from the study during the lengthy research process because of their tight schedules. To ensure that the sufficient number of participants could be maintained as expected, I initially identified eleven students and invited all of them to participate in this study.

3.5.1.1 Selection of primary research participants

To recruit the student participants, a purposive sampling procedure, a method typical in case study methodology, was used. Purposive sampling is a procedure for selecting information-rich cases to yield in-depth understanding of the phenomenon under study (Bloomberg & Volpe, 2008; Merriam, 1998). To implement this sampling procedure, the criteria for selection of student participants were established as follows. First, participants must have completed their first degree in Thailand with the Thai language as a medium of instruction in their programme of studies. This was based on the assumption that participants had not yet adjusted themselves to academic English writing demands at a tertiary level. Second, at the time that I had entered the research site, the participants needed to have been writing their dissertations and to have the potential to complete or almost complete their dissertations before I left the research site. This was to ensure that they experienced most of the dissertation writing process and then could provide rich information for the study. Third, participants must have agreed that I could conduct an interview with their supervisors. As experienced in the pilot study, one student participant's supervisor could not be approached for an interview because the student participant believed that they would feel uncomfortable if I did so. As a result, the data collected based solely on the student's experience could not provide me with a full picture of his dissertation writing experiences.

Based upon the criteria for selection of participants, prospective student participants were identified by using a snowball or network sampling strategy (Miles & Huberman, 1994; Patton, 2002). The first few participants were identified through my personal contact with a friend who, at the time, was undertaking her PhD in the Faculty of Science and through my colleague who knew some postgraduate students in science. Ploy, a participant in the pilot study, was one of the first students I was introduced to via e-mail many months before I entered the research field. Since Ploy had planned to finish her write-up before I could start the data collection process for the main study, she was invited to be a research participant in

the pilot study. Later, Ploy helped identify other potential participants when we discussed the criteria for participant selection. My doctoral friend also greatly helped me to locate potential participants. The first few participants who were introduced to me by Ploy and my friend later referred other participants to me. Altogether eleven participants, excluding those who were the participants of the pilot study, volunteered to participate in this study. Unfortunately, some dropped out halfway through the data collection process because of their laboratory experiment problems. For others, their supervisors were away from Thailand at the time when I wanted to interview them. Finally, five remaining students met the established criteria for the main study.

It should be noted that the snowball sampling strategy used for identifying student participants in this research was very effective. As I was introduced to participants through this kind of informal and friendly network, it became apparent that my relationship with the participants was not structured hierarchically, but more symmetrically. Being first informally introduced to the participants as a friend of a doctoral student in their faculty, the students and I met on a relatively equal level which, in turn, afforded us the opportunity to establish a good rapport and trust. This was very helpful, because the participants felt more comfortable about sharing their ideas about their academic experiences with me.

3.5.1.2 Selection of secondary research participants

To identify supervisors, the student participants were first asked to give their paired supervisor's name. The students were informed that their paired supervisors would be interviewed only when the students felt comfortable. All participants agreed, so I later introduced myself to their supervisors and invited them to serve as my research participants. My status as a research student and university lecturer helped me in gaining their collaboration. Having previously been research students themselves before embarking on their career as university lecturers, they had experienced and realised the importance of undertaking research as part of their studies and as part of the ongoing process for their professional development. The pedagogical implications of this study, which directly involved academic writing support for science students, also helped shape our good relationship. Therefore, it seemed that these dissertation supervisors felt very comfortable and eager to share their experiences of supervising their students with me. Information obtained from these supervisors greatly helped enrich the database that I needed for this study.

In this section, I have thus far explained how primary and secondary research participants of the main study were identified and approached. I will leave more detailed descriptions of

them for Chapter 4, where their profiles will be presented in five student-supervisor pairs to form five cases.

3.5.2 Data collection methods

The main data for this study came from semi-structured interviews with student participants and their paired supervisors. Other sources of data were from a set of background questionnaires, a series of collaborative conversations with research participants, and documents concerning English language learning and teaching policy produced by the university. The data collection for the main study was performed between June and September 2007.

Once potential student participants were identified, I held a briefing session for each of them. This session was aimed at providing the participants with necessary background information about the research project and their expected involvement in it. At the end of a briefing session, the participants filled in a student background questionnaire. The participants could return the questionnaires to me a few days later to provide them with an opportunity to consider if they still wanted to take part in this research. When the questionnaire was returned, the interview timetable was arranged with each participant. There were three individual interview sessions with each participant. After completing the second interview sessions with all participants, they were asked to provide their paired supervisors' names (if they had already agreed that I could interview their supervisors). Then, I arranged to meet their supervisors and performed one interview session with each of them. The third interview session with the student participants was carried out when all of the interview sessions with the supervisors were completed. During the period of four months that I was at the research site, I had multiple informal conversations with the research participants to keep me informed about their academic literacy activities and writing practices. After I left the research site, I still kept in contact with the participants in order to gain additional information, where appropriate, to enrich the data I had previously obtained.

The following sections discuss rationales for the use of each type of research instrument and how the data were collected in detail.

3.5.2.1 Background questionnaires

A set of background questionnaires was given to the student participants when they agreed to participate in this study. The questionnaire served two purposes. First, it was used to elicit a basic personal and academic background of each participant. This information, later

complemented by information obtained from the subsequent interviews, was used to create a profile of each student participant. Second, it was used along with the interview schedule during the first interview sessions. Having some background information about the participants prior to conducting the interviews helped me to retrospectively add some probing questions regarding their academic literacy histories that I was not previously aware of. The student questionnaire is provided in Appendix 1.

3.5.2.2 Semi-structured interviews

A qualitative interview was used as the main method for data collection in this study due to its potential to extract rich information based on the participants' perspectives. A qualitative interview is an attempt to understand people's experiences from their own words and points of view (Bogdan & Biklen, 1992; Kvale, 1996). It is, therefore, a useful tool for investigating people's experiences in depth (DeCapua & Wintergerst, 2005). The rationale for adopting this research method within this study was developed both from theoretical and methodological points of view. From a theoretical stance, this interview method corresponds to the underlying assumption of an interpretive, qualitative paradigm that was adopted in this study. That is, by using the qualitative interview, the participants' multiple perspectives on their dissertation writing practices unfolded as they viewed them. As Gillham (2005) and Marshall and Rossman (2006) phrased it, a qualitative interviewer can capture the participant's view on the phenomenon of interest from the participant's *emic* perspective, not from the *etic* perspective of the researcher.

From a methodological viewpoint, there are different types or techniques of qualitative interviews that can be used according to the aims of the research project. In this study, a semi-structured interview was employed. A semi-structured interview involves the implementation of specific and determined questions; however, it also allows the interviewer to simultaneously probe far beyond the initial answers to the prepared questions (Berg, 2004). During the interview process, the sequencing of questions is not the same for each participant as it depends on the responses of each individual. It then allows the participant and the researcher to pursue relevant issues of interest of which the researcher may not have previously thought (Cohen *et al.*, 2000).

In the pilot study, it was found that this qualitative, semi-structured interview was an effective technique with which to cover all interview agendas. It was also flexible in that it allowed the participants to raise some issues related to their academic literacy practice and dissertation writing that might not be anticipated when the research schedule had been initially developed. Their views helped to inform the ongoing interview. This was

advantageous to me for two reasons. Firstly, I could form a reasonably equal balance in the research relationship during the interview process with the participants (Lewis-Beck *et al.,* 2004; Ostrander, 1995) which, in turn, helped the participants to feel more comfortable about expressing their viewpoint. Secondly, the issues raised by the participants helped me to revise the interview schedule to make it more exhaustive for the next interview. The decision to use semi-structured interviews in this research project was also informed by a prolific body of research that explored academic literacy and writing practices by using the semi-structured interview. This included, for example, studies by Casanave (1998, 2002), Huang (2010), Krase (2007), Leki (2006), and Li and Flowerdew (2007). By using qualitative, semi-structured interviews, it could be considered that the data collection method for this study was theoretically and methodologically sound.

Interviews with the students

Three sessions of semi-structured interviews were conducted with each student participant. Each interview lasted between 60 and 90 minutes and was carefully tape-recorded. All participants were interviewed in Thai, our first language, which we had previously agreed upon in order to avoid any language barriers and ambiguity during our interviews. This, in turn, ensured that the participants really understood my questions and could express their views of their academic experiences as they wanted to. As such, the interview data obtained were valid and insightful.

The interviews were carried out in two different locations chosen by the students: my office, which was very close to their departments, or the Self-Access Language Learning Centre located in the same building. The interview was quite relaxing, which was my intention in order that the participants would feel more comfortable about sharing their learning experiences. More importantly, I considered that the semi-structured interview process was dynamic and collaborative. Although the interview schedule used in the main study was revised after the pilot study, I realised that some new aspects could emerge from the interview being performed as well. When our interview was undertaken in a non-threatening environment, it seemed that the participants felt free to raise certain issues that were very informative for me in understanding their academic learning experiences. All the three interview sessions with the students were carried out between June and September 2007. During this period, the students were writing up and revising their dissertations for submission. At the time this study was being conducted, they were in the first term of their fourth academic year and expected to submit their dissertation no later than October 2007.

The first interview with the students was conducted in the third and fourth weeks of June 2007, the second in the third and fourth weeks of July 2007 and the last in the first and second weeks of September 2007. During each interview interval, I also had follow-up conversations with each student, which will be discussed in detail in Sub-section 3.5.2.3. Interview questions for each session, as shown in Appendix 2, were based on the interview questions that were further developed after the pilot study had been conducted. The first interview was aimed at drawing a general account of student participants' academic background based on the information obtained from the questionnaires given to them in the briefing session. It dealt particularly with participants' previous English learning and writing experiences, their academic literacy practices in their graduate programme, and their first phase of dissertation writing.

The purpose of the second interview session was to provide student participants with an opportunity to further reflect on the writing activities that they engaged in during the one month interval after the first interview. Included in this interview were issues concerning writing challenges they encountered and the practices that they adopted in order to cope with those writing challenges. The participants were also asked about their perspectives of the dissertation supervision process and support they received from their paired supervisors. The third session prompted the participants to reflect in more detail on their dissertation writing and supervision experiences during the last phase of their dissertation writing. This final interview session also allowed the participants to encapsulate the whole process of dissertation writing and supervision they experienced in their programme.

At the beginning of the second and third interview sessions, I also discussed with each participant the main points that were summarised from the preceding interview with each of them as well as my preliminary interpretations. This kind of member checking, which will be discussed in detail in Section 3.6.1, was used to clarify certain aspects of a participant's response in the preceding interview that was found to be unclear or needed further information. The students were also asked to bring with them some writing samples, if possible, to the second and the third interview sessions. These writing samples were used for text-based interviews (Odell *et. al*., 1983) to help prompt the students in the semi-structured interview process. To prompt the students, I went through their writing samples and asked them questions related to their pieces of writing. The questions asked were quite generic, reflecting the writing processes or practices rather than discrete language-specific questions. These questions included, for example, how they felt about the written feedback given by their supervisors, time they spent on writing particular parts, and how they drew on resources to help them write a particular section.

It should be noted that the prepared interview schedule was used as a guide for each interview session, especially for the second and third sessions. The sequencing of the questions for each participant was not the same and there was an overlap between the three interview schedules. The application of the sets of questions varied during the interview session with each participant. This especially happened as the data collection progressed and the participants employed different writing practices based upon different situations they encountered.

It should also be mentioned that, while I was interviewing each participant, I did not take any notes. As observed during the interview session in the pilot study, I found that my note-taking could interrupt or distract the participant while we were engaging in the interview process. I wanted the interview to be conversation-like in a natural setting, which would generate a flow of expressions from the participant. However, once each interview was over and the participant left the interview, I immediately reflected on my impressions and rudimentary interpretations of the interview, and then made notes of them. This helped me greatly to recall each interview situation, and was very useful in the processes of transcribing and analysing the interview data.

Interviews with the dissertation supervisors

Each of the student participants' paired dissertation supervisors was interviewed once in Thai. The interview lasted approximately 90 minutes, and was also tape-recorded with the participant's permission. The interview with each supervisor was conducted during the second and fourth weeks of August 2007, which was when the second interview sessions with the student participants were completed. Before interviewing each of them, I consulted each student participant about the questions that I had initially planned to use in the interview with his or her paired dissertation supervisor. This was to ensure that the students would feel comfortable with those questions. Fortunately, all participants agreed on all interview questions. The interview with five supervisors took place in their own offices and one was interviewed in the departmental common room. Since I was also a lecturer in that university, our interviews were informal and interactive. All participants were enthusiastic about sharing with me their perspectives on their dissertation supervision experiences, especially when they knew that my teaching and this research project directly involved the academic support for their students.

The interview with the supervisor centred on the following aspects: a) academic literacy practices valued in the MSc programme; b) her or his paired student's perceived writing difficulties; c) other students' perceived writing difficulties, d) her or his support and

guidance provided to the supervisee; and e) language support perceived to be useful for graduate student writers. The interview with the paired supervisor offered a point of comparison for the data gathered from the student participants. The interview schedule is shown in Appendix 3.

As can be seen, interviews with the students' paired supervisors were important. Based on the theoretical assumption of this interpretative, qualitative research, gaining multidimensional perspectives of the student participants' experiences was necessary. This meant that, in this study, the students' experiences were understood and interpreted not only from their own perspectives but also from their paired supervisors' viewpoint.

3.5.2.3 Collaborative conversations

In this study, a 'collaborative conversation' refers to any occasion where I had an informal interview or conversation with the research participant apart from the more formal, sit-down, semi-structured interview. The term 'collaborative conversation' was used in this study, following Hollingsworth' s (1994) work, to connote its reciprocal quality as I saw it as a joint activity, not directed solely by one participant (Feldman, 1998; Shotter, 1993), but rather by all partners engaging in the conversation. The term was also aimed to imply its level of formality compared to the semi-structured interview method used in this study when it happened in this research context. That is, its conduct was casual although it also aimed to elicit data from the participants.

The framework of collaborative conversations that I developed in this study was also informed by the concept of ethnographic interviews. In ethnographic studies, informal conversations with field participants help provide the foundation for a more complete picture of the research context and phenomenon under investigation (Rossman & Rallis, 2003; David & Sutton, 2004). The term 'informal conversations' as a research tool is also used interchangeably with 'informal interviews' (Hatch, 2002; Ruane, 2004), 'informal conversational interviews' (Patton, 2002), and 'unstructured interviews' (Fontana & Frey, 2005; Leedy & Ormrod, 2004).

The concept of this kind of conversation or interview is that, in the early phase of the fieldwork, the informal conversation or interview may simply deal with a series of general information questions. It can take place anywhere at any time whenever opportunities arise. As the research progresses, the questions will be more focused and the information obtained will gradually supplement intensive in-depth interviews with focal participants. A key difference between the informal conversation and the more formal interview, such as the

structured or semi-structured interview, is that the former is more reciprocal because the researcher and the participant freely engage in sharing ideas and information: a give and take exercise between the two parties (Patton, 2002). This, in turn, helps alleviate the typical hierarchical nature of relationships between researcher and participant (Bailey, 1996).

The use of collaborative conversations in this research was also informed by the role of informal conversations or interviews as shown in empirical studies in the area of second language studies, especially those focusing on academic literacy and academic writing at tertiary level. The participants were also informed at the outset of the study that information from these collaborative conversations would be incorporated into the study.

Like researchers who included informal conversations as part of their studies (e.g. Casanave, 1998, 2002; Hu, 2000; Krase, 2007), I did not tape-record the conversation with my research participants. Rather, written field notes were taken immediately after finishing our collaborative conversions. To justify this, it is first necessary to recount how the collaborative conversation was implemented in this study.

Based upon the perspectives previously presented, the collaborative conversation used in this study included any kind of dialogues between the participant and me. The conversation was informal and may or may not have been pre-arranged. This means that it could be extracted from our small talk before or after our semi-structured interviews to be audio-recorded. When I had an interview with the student participant, I could not start our interview immediately when we met. We usually engaged in small talk so that we both felt relaxed, comfortable, and ready for the interview. In addition, after finishing our interview and stopping the tape recorder, we usually had further casual conversations. This kind of informal conversation always revealed some interesting data that I had not identified. It might be a conversation about the participant's feelings or pressure of meeting with their supervisor on that day, or some unexpected problems with their laboratory work. It may also include the reflection on our interview conversation. Therefore, after finishing the recorded semi-structured interviews with them, I immediately wrote relevant information in field notes about our informal conversations.

Collaborative conversations employed in this study also included any informal conversations during the interval between the three semi-structured interview sessions and after the last interview session. They might be arranged by us or be spontaneous, and may range from less than ten minutes up to one hour. In terms of arranged conversations, usually I wanted to meet the participant to ask for additional information, clarify some points about their learning experiences or discuss my summaries of the previous interviews and

preliminary interpretations of them. Our meeting was very informal and reciprocal. It might be during our lunch or over a cup of coffee in a café. I was not the one who led the conversation as in the semi-structured interview. Rather, it was more like a normal conversation where each took a turn and, sometimes, the participant led the direction of the conversation. Our conversations included not only my research activity, but also any other general issues. When the conversation led to questions about or interpretations of my research, where appropriate, I made notes. Sometimes, I recorded a field note after finishing our conversation because I did not want to interrupt our conversation, thus keeping it as natural as possible.

Every so often, some discussions were not arranged. I may unexpectedly meet the participant on campus, where we might then engage in some conversation. To some extent, this also identified some aspects that touched the student's academic life. Some participants gave me a ring on a couple of occasions when they felt stressed or worried about their dissertation writing and they wanted someone to 'listen to' them. A few expressed their concerns about looking for a place to pursue their studies after graduation. These fragmented pieces of information also helped me conceptualise their lived experiences as graduate students and were very useful when incorporated into a series of extensive semi-structured interviews.

There were fewer collaborative conversations with the dissertation supervisor in number, compared to those with the student participants due to their busy schedules. I took notes of my first meeting with each of them when I first introduced myself to them, to discuss my research aims and made an arrangement for later interviews. When I conducted interviews with the dissertation supervisors, we had some informal conversations - which seemed to be longer than those with the student participants - before the interview started. Our conversations reflected some aspects of our academic experiences as graduate students and professional experiences as lecturers. These kinds of conversations, though initially not included in my interview schedule with them, turned out to be very informative and helped me to be intuitively aware of the supervisor participants' views of their own personal academic literacy experiences. Later, I found that their personal histories also affected the socio-academic relationship between them and their students, which I will report in the following chapters. Field notes of informal conversations after the interviews were also very revealing. It seemed that informal conversations yielded fruitful information about the supervisors, especially their academic and professional ambitions that, again, I found reflected the way they supported their students.

Therefore, the use of collaborative conversations as developed from Hollingsworth's (1994) work and the concept of ethnographic interviews was considered to be advantageous in this research project. It allowed the participants to take part in leading informal conversations to share their knowledge, views, understanding and feelings in directions that they may not have done in the semi-structured interviews. Apart from contributing informative data to augment the main data from semi-structured interviews, it was also important in that I could establish some kind of member checking as will be explained in Section 3.6.1. It was also helpful in establishing rapport and trust with the participants in a more relaxing manner that subsequently helped the participants to reveal insightful data. I found that multiple collaborative conversations with the participants were extremely useful in keeping me continuously informed about the student participants' writing experiences throughout the duration of the fieldwork.

3.5.2.4 Documents

Different types of paper-based or web-based documents produced by the university were collected over the course of this study. The documents could throw light on some aspects of academic literacy practices valued by the academic community in this research site. The primary aim of collecting these documents was to identify information about the university's English language courses and support offered to graduate students, and the level of students' English language proficiency expected by the university. The documents collected included the university's list of English language courses offered to graduate students with their course descriptions, the policy paper stating the support for the use of English as a medium of instruction in some potential subjects, and a graduate student handbook.

Summaries of the data collection procedures and database of the main study are presented as follows.

Table 3.1: Summary of data collection procedures

Data collection procedures	Timeframe
▪ Contacting prospective student participants	February 2007
▪ Gathering web-based and paper-based documents	February–July 2007
▪ Giving a brief session introducing prospective student participants ▪ Administering a questionnaire to prospective student participants ▪ Recruiting student participants	June 2007 (Weeks 1-2)
▪ Interviewing student participants (First interview)	June 2007 (Weeks 3-4)
▪ Interviewing student participants (Second interview) ▪ Collecting students' writing samples	July 2007 (Weeks 3-4)
▪ Approaching students' paired supervisors ▪ Interviewing students' paired supervisors	August 2007 (Weeks 2-4)
▪ Interviewing student participants (Third interview)	September 2007 (Weeks 1-2)
▪ Collecting field notes through collaborative conversations	June–October 2007

Table 3.2: Summary of data base

Methods	Types of data	Descriptions of the data
▪ Questionnaires	▪ Responses from five questionnaires returned by the students	▪ Personal background ▪ Educational background ▪ Previous language learning experiences/ ELP test score
▪ Semi-structured interviews	▪ 3 Tape-recorded and transcribed interviews with each student ▪ 1 tape-recorded and transcribed interview with each supervisor	▪ English learning and writing experiences ▪ Perceptions of writing problems ▪ Perceptions of dissertation writing/writing strategies/pressure ▪ Perceptions of dissertation supervision ▪ EAP/language support needed
▪ Collaborative conversations	▪ 9-15 field-note records based on conversation exchanges with each student ▪ 2-4 field-note records based on conversation exchanges with each supervisor	▪ Detailed information parallel to those obtained from semi-structured interviews
▪ Documents	▪ The university's English language teaching policy paper ▪ Graduate student handbooks ▪ A list of English language courses with descriptions offered to graduate students ▪ Other documents on the university's website and the Faculty of Science's website	▪ Expectations of graduate students' English proficiency ▪ Language support and resources available for graduate students ▪ Available support for students and supervisors concerning dissertation writing and supervision ▪ The university's rules and regulations for graduate studies; the Faculty's profile

3.5.3 Data analysis

The entire process of data analysis was comprised of a series of interrelated activities aimed at building a coherent interpretation of the data. The process of analysis in this study could be broadly divided into two phases. The first phase began simultaneously with the data collection, and the second was undertaken once the data collection was completed.

3.5.3.1 Phase I: Processual analysis

In Phase I, the analysis was rudimentary, carried out in parallel with the process of data collection at the research site. Pole and Lampard (2002) refer to this as 'processual analysis' to connote continuous engagement with raw data as they are collected. This phase of analysis was informal but advantageous for this research project because it, in part, oriented the direction of the ongoing data collection as it progressed. The analysis procedures adopted in this study were as follows.

First, I immediately analysed the responses from the student participants' background questionnaires when they were returned to me. Two broad aspects of each student's academic literacy experience were noted: a) previous English language learning experience, and b) academic literacy practices in their department. This provided me with the participants' basic academic background which, in turn, facilitated the subsequent interview process.

Second, in order to gain a better understanding of the research setting, the documents collected were examined, especially those concerning the university's English language teaching policy and English language courses offered to postgraduate students. I went through the materials and made notes of these aspects: a) English language support for postgraduate students, and b) postgraduate students' English language proficiency level expected by the university. The results of document analysis were used selectively in supporting and analysing the research data in Phase II.

Third, I conducted an informal analysis of the data obtained from the interviews and collaborative conversations with the students and their dissertation supervisors. After finishing the interview with each participant, I carefully listened to the audio-recorded interview. I also read the field notes of each collaborative conversation before proceeding to another interview or collaborative conversation with each research participant. In so doing, I was able to check if all inquiry agendas had been covered. In other words, this kind of processual analysis helped me a great deal in framing subsequent interviews and collaborative conversations with all research participants, ensuring that all required information was collected.

3.5.3.2 Phase II: Summative analysis

In Phase II, data analysis was formal and carried out when all data had been collected. This kind of data analysis is often referred to as 'summative analysis' (Pole & Lampard, 2002). The summative analysis was undertaken in this study to analyse the interview data obtained

from the students and their dissertation supervisors. The analysis procedures adopted followed those suggested by Arksey and Knight (1999), Rubin and Rubin (2005), and Zhu (2004) as follows.

1. Organising the data

In order to facilitate data storage and retrieval, all twenty interviews were first transcribed verbatim. As discussed in Sub-section 3.5.2.2, I had three interview sessions with each of the five students and one interview session with each of the five supervisors. After completing the transcribing of each interview, the transcript was assigned with a label, as shown in the following table.

Table 3.3: Interview transcripts with assigned labels

Students	Interview 1	Interview 2	Interview 3	Supervisors	Interview
1. Pat	A1	A2	A3	1. Aj Patcharee	A4
2. Anne	B1	B2	B3	2. Aj Worapong	B4
3. Ken	C1	C2	C3	3. Aj Nisakorn	C4
4. Joy	D1	D2	D3	4. Aj Boonyarit	D4
5. Wan	E1	E2	E3	5. Aj Dhirayu	E4

2. Developing the preliminary coding categories

The rudimentary coding categories were first established prior to analysing the interview transcripts. Having been guided by the three research questions of the study and my review of relevant L2 writing literature, I was able to develop three rudimentary coding categories as follows:

Rudimentary coding category

Category 1: Reasons for choosing to write a dissertation in English

Category 2: Linguistic preparation for dissertation writing

Category 3: Dissertation writing processes and practices

I then carefully read the transcripts of A1, A2, A3, and A4, one at a time, and marked segments of the transcripts based upon the three main coding categories. After completing this process, I carefully went through all of the marked segments and identified salient and recurring themes. In this way, I was able to identify several themes under each of the three categories. For example, under Category 1, five themes were preliminarily identified as follows:

Category 1: Reasons for choosing to write a dissertation in English

Theme 1: Being accepted by others as a student with high academic performance

Theme 2: Improving self-confidence in using English

Theme 3: Developing English skills as preparation for doctoral studies

Theme 4: Using the dissertation to impress the prospective doctoral supervisor

Theme 5: Developing English skills in order to get a good job after graduation

However, I later made a decision to adjust the number of main coding categories by dividing Category 3 into three separate categories. The major reason was that more than fifteen themes were found under Category 3. This was because Category 3 primarily dealt with the students' writing experiences during the writing-up stage, which were the main focus of the study. The new three categories were derived based upon the types of academic literacy activities that the students engaged in at different writing-up stages. Breaking Category 3 into three separate categories helped me a great deal in systematically and effectively coding the transcripts at the later stages. The revised set of main coding categories was as follows:

The revised set of main coding categories

Category 1: Reasons for choosing to write a dissertation in English

Category 2: Linguistic preparation for dissertation writing

Category 3: Pre-writing preparation

Category 4: Text-writing revision

Category 5: Final preparation of the dissertation

When the revised set of coding categories was developed, I also made a full list of all salient and recurring themes under each coding category, which was to be used as preliminary coding categories for the other sixteen transcripts. I carefully went through the sixteen transcripts and applied the preliminary coding categories to all of them. Whenever new themes emerged as the transcript was coded, they were also added to the previous lists. It is

important to note that when more transcripts were coded, certain themes were adjusted. For example, when I first coded the transcript of A1, the first theme identified under Category 1 was as follows:

Category 1: Reasons for choosing to write a dissertation in English

Theme 1: Being accepted by others as a student with high academic performance.

However, when I was coding the transcripts of B1 and C1, I found that the students more explicitly mentioned two groups of people that had affected their decision making in choosing to write their dissertation in English. Therefore, I broke the first theme under Category 1 into two themes as follows:

Category 1: Reasons for choosing to write a dissertation in English

Theme 1: Being academically recognised by their tutors

Theme 2: Being academically recognised by their peers

3. Developing detailed coding categories

It should be noted that coding the transcripts during the previous stages was usually descriptive. When more interview transcripts were coded and re-coded, certain previously-identified themes were also modified to a certain extent. Therefore, when all transcripts were coded using the preliminary coding categories, all identified themes were listed again. These themes were then re-examined and adjusted in order to make the coding categories more logical, coherent, and succinct. I later organised them into conceptual groups (and also sub-groups where necessary)**.** For example, under Category 1, after completing coding all twenty transcripts, seven emerging themes were identified:

Category 1: Reasons for choosing to write a dissertation in English

Theme 1: Being academically recognised by their tutors

Theme 2: Being academically recognised by their peers

Theme 3: Boosting self-confidence and self-esteem

Theme 4: Using the dissertation as proof of English proficiency when applying for a doctoral study

Theme 5: Improving English as preparation for doctoral studies

Theme 6: Using the dissertation to impress the prospective doctoral supervisor

Theme 7: Improving English to guarantee employment after graduation

Based upon the seven themes above, I found that Themes 1-3 were all concerned with how the students wanted others members of their academic community to perceive them, and how they wanted to perceive themselves, with regard to their academic performance. In other words, these themes were about "who the students wanted, or did not want, to be." Therefore, I grouped these three themes under one main theme: Forming one's academic identity. For Themes 4-7, it can be seen that all of them dealt with the ways in which the students perceived the importance of writing their dissertations in English with reference to their future academic and professional success. These themes were then grouped under one main theme: Planning for academic and professional prospects. Therefore, Category 1 was finally revised as follows:

Category 1: Reasons for choosing to write a dissertation in English

Theme 1: Forming one's academic identity

Theme 2: Planning for academic and professional prospects

After I had finished re-examining and grouping all of the emerging themes, I was able to develop a final set of coding categories for analysing all of the interview transcripts in a more systematic and effective way. I also assigned a definition and an exemplary interview segment to all coding categories in order to ensure consistency for later coding. The final set of coding categories is presented in Appendix 5.

4. The final coding of the transcripts

Based upon the detailed coding categories discussed in the previous stage, I carefully re-read all of the interview transcripts, and re-coded them. It should be noted that consistency in coding the interview transcripts at this stage was paramount. I therefore used two strategies to deal with this issue. The first strategy was to familiarise myself with all definitions and exemplary segments for all coding categories. Before starting to re-code the transcript, I carefully went through the coding categories, making sure that I had thoroughly understood the definitions and exemplary interview segments provided. This strategy facilitated the entire coding process in that it assisted me in being consistent during the coding process, resulting in intra-coder reliability or consistency. The other strategy was undertaken in order to enhance inter-coder reliability. That is, I asked one Thai university lecturer and researcher who was undertaking a PhD in Education, with experience in conducting qualitative research, to help me in coding six of the student interview transcripts

(C1, C2, C3, E1, E2, and E3) and two of the supervisor interview transcripts (C4 and E4). Along with the interview transcripts, she was given the complete coding categories with the definitions that I had previously developed. When she finished her coding, it was compared with mine to see if there were any differences in our coding. It was found that only a few interview segments were coded differently. This showed that our coding had high inter-coder reliability. The differences in our coding were influenced by our different understanding of the research context and some situations when the interviews were being conducted. In order to diminish this problem, information from field notes on the collaborative conversations was used as a basis for contextualising the interview transcripts. Having enough contextualised information about the interviews to work with, we discussed the segments that were coded differently and thus achieved a consensus easily.

It should also be noted that the transcripts used for coding were in Thai. The transcripts were not translated from Thai into English until the coding was completed. This was due to two concerns about translation across two languages, Thai-English. Firstly, translating the interview transcripts originally in Thai into English could have posed some potential threats to the validity or accuracy of the original data when it came to analysis, and this could have affected the subsequent analysis and interpretation of the data in my study. Maintaining the Thai version of the transcripts was considered to be the best way to minimise such threats during the process of data analysis. This practical issue has also been raised (although sometimes neglected by some) by many qualitative researchers (e.g. Edwards, 1998; Esposito, 2001; Temple & Young, 2004), who wanted to ensure that unexpected findings were not a result of coding or analysis of the data with translation errors.

The second concern about translation across two languages was also related to the first one. Although the translation could be performed carefully and sophisticatedly with expertise, the translated transcripts might still affect the process of my data analysis. I found that it was not easy for me to analyse the data in English as effectively as performing it in Thai, which is my first language. Since the data were qualitative and the analysis was interpretive in nature, it was not only syntactic and semantic knowledge but also cognitive demands that I needed to apply to the analysis process. Therefore, it was more practical that the raw data be examined in Thai by me and the inter-coder, which would again enhance the accuracy or validity of the process of data analysis.

3.6 Establishment of Trustworthiness

This section discusses the quality of this research project. I first discuss why 'trustworthiness', instead of 'validity' and 'reliability', is more appropriate to be used for

obtaining information on the quality of the present research. I then explain in detail the strategies that were used to establish the trustworthiness of the study.

3.6.1 Trustworthiness and research quality

In this study, I followed Lincoln and Guba (1985), who advocate the concept of trustworthiness for ensuring the quality of qualitative research. Trustworthiness, as they put it, is a basic issue related to how researchers can persuade readers that the findings of an inquiry are worthy and worth taking into account. Trustworthiness consists of four constructs: credibility, dependability, transferability, and confirmability. These four constructs are developed in response to the quantitative concepts of validity, reliability, generalisability, and objectivity.

The major reason why four constructs of trustworthiness were used as a guideline for ensuring the quality of this research project was that they resonate with the philosophical assumptions of qualitative research. Whilst validity and reliability are two central constructs used to evaluate research quality in general, qualitative researchers observe that scholarly discussions of validity and reliability have traditionally been attached to quantitative research, with its roots in a positivist paradigm. Therefore, they suggest that, in order to ensure the quality of qualitative research, alternative theoretical constructs should be developed in relation to an interpretive paradigm (Bryman, 2004; Healy & Perry, 2000; Johnson, 1997; Lincoln & Guba, 1985; Patton, 2002; Smith, 1984). This is very important because as a qualitative researcher, I entered the research site with different philosophical assumptions from those of quantitative researchers. As discussed in Sections 3.2 and 3.5, the philosophical assumptions that I held and the ways in which I collected and, then, analysed the obtained data were different from those of quantitative researchers. Whilst quantitative researchers tend to use statistical devices a great deal to examine the validity and reliability of their data and data analysis procedures, I used different strategies to ensure the quality of this research project, which will be discussed in detail in the following section. This research also did not aim to generalise its findings to a larger population because it was a qualitative case study. It is also important to note that, as this research was situated in the interpretive paradigm, it was impossible to eliminate all biases during the processes of data collection and analysis. Based on aforementioned reasons, the quality of this qualitative research should be taken into account based upon its own research paradigm.

3.6.2 Strategies used for establishing the trustworthiness of the study

On the basis of the four constructs of trustworthiness suggested by Lincoln and Guba (1985) mentioned above, different research strategies were used in order to ensure the quality of this research project. This section discusses how each strategy was used based upon each construct of trustworthiness.

3.6.2.1 Credibility

'Credibility' is concerned with how research is carried out in a way that enhances the confidence or believability of its findings and interpretations. It is closely related to the positivist construct of 'validity'. Qualitative research is "credible" when it offers a truly faithful description of human experience (Lincoln & Guba, 1985). Three strategies were implemented in this study to establish its credibility: prolonged engagement, data and methodological triangulation, and member-checking.

My *prolonged engagement* in fieldwork helped me to obtain rich data that represented the 'multiple realities' (Lincoln & Guba, 1985; Mason, 2002) or different perspectives of students' writing practices held by the individual research participants. That is, I invested sufficient time in the research site to acquire an in-depth understanding of the participants' dissertation writing experiences. As described in Section 3.5.1, prior to collecting the research data, I contacted prospective students via e-mail or telephone to introduce myself and then invited them to participate in my research project. When the main research project was launched, I not only interviewed the student participants but also had conversations with them during the interview intervals whenever time allowed. This provided the students with an opportunity to get to know me. Throughout the four months of my fieldwork, our participatory research activities gradually helped me build trust and rapport with the participants, resulting in their feeling more comfortable in sharing their writing experiences with me. This could be observed from the fact that the participants appeared to be more at ease in providing longer answers about their literacy experiences when the research progressed. In addition, during the interviews and conversations, they also felt comfortable raising certain issues surrounding their literacy experiences that I may have overlooked. Therefore, throughout my four months of engaging in the fieldwork, I was able to obtain sufficient data to gain an insightful understanding of their dissertation writing experiences.

Triangulation was another strategy used to capture a comprehensive portrait of the students' dissertation writing experiences. Again following Lincoln and Guba (1985), this study used two types of triangulation: data triangulation and methodological triangulation.

For the data triangulation, data from two main sources were collected: student writers and dissertation supervisors. Drawing data from both groups of participants provided me with multiple perspectives on the students' experiences with dissertation writing. Different modes of data collection were also involved in this study for methodological triangulation, including administering a set of questionnaires to students, interviewing research participants, recording information obtained from collaborative conversations, and collecting contextual information from documents produced by the university.

Member checking was the last strategy used to enhance the credibility of this research. Polit and Beck (2003) have suggested that research participants be offered an opportunity to check or react to the data collected and comment on the interpretations of what was recorded. Member checking was used in this study to ensure that the data collected, especially those from the students and teachers, and my interpretations of them, were accurately representative of their perceptions about dissertation writing. Having a member check with the research participants was an ongoing process as the data were being collected. Member checking was performed in this study as follows. First, after finishing each interview with the participant, I listened to the tape-recorded interview and went through the field notes that I made immediately after the interview process. The main points were then summarised and preliminary interpretive notes were made. The summary and interpretations of the interview were discussed with the participant during a collaborative conversation or at the beginning of the subsequent interview session. The participant was encouraged to comment on my interpretation as to whether it was a true or fair representation of her/his perspective. In so doing, I was able to clarify what I was unsure of or found ambiguous in the interview data. In summary, member checking helped me to avoid misinterpretation of the participant's words or actions, and thus appropriately present the participants' viewpoints.

3.6.2.2 Dependability

'Dependability' parallels 'reliability' in quantitative research. It deals with how consistent or dependable the results of the study are (Lincoln & Guba, 1985). The major concept is that other researchers should be able to arrive at the same results if they analyse the same set of data. In order to ensure dependability, Bloomberg and Volpe (2008) have suggested that the researcher provide detailed explanations of how the data are organised and then analysed. This would reveal, as Marshall & Rossman (2006: p.203) summarise, "whether the process of the study is consistent, reasonably, and stable over time and across researchers and methods."

The ***trackability*** or ***audit trail*** of all stages of data collection and analysis was used to enhance the dependability of this research. In so doing, in this research report I clearly demonstrated how the data were systematically sorted, and then analysed, to yield high consistency during the data coding process. This was determined by inter-coder reliability and intra-coder reliability as described in Section 3.5.3.2. In reporting the findings of this study, when the excerpts from the interview data were presented as representations of the research participants' perspectives, I was careful when translating them from Thai into English. I also asked a Thai student who was completing her doctoral degree in TESOL at a British university to help check my translation. Presenting accurately-translated excerpts along with my own interpretations would help the reader to critically judge if my interpretations were theoretically and methodologically appropriate. The strategies taken as described helped me to reduce the potential bias of being a single researcher in the processes of analysing and presenting the data which, in turn, assisted me in approaching dependability in this study.

3.6.2.3 Transferability

'Transferability' captures the concept of 'generalisability' in quantitative research. Qualitative research, especially a qualitative case study, has often been criticised by quantitative, positivist researchers in that its findings cannot be statistically generalised to a larger population due to the use of a small number of research participants (van Lier, 2005; Stake, 2005; Yin, 2003). Wolcott (1994) and Stake (1995) reject the concept of generalisability in conducting qualitative research, stating that the main aim of conducting qualitative research is not to claim any statistical generalisability of its findings beyond its immediate context. Rather, its main aim is to gain insight into what happens in specific situations or cases.

The strategy that I used in this study in order to achieve its transferability was to provide the reader with ***reader/user generalisability.*** Although the research findings of qualitative research are specific to their research context, Lincoln and Guba (1985) suggest that qualitative researchers can also draw conclusions from their findings which have a wider applicability beyond the immediate context of the research. They propose the construct of transferability, in which the researcher can argue that the findings obtained are also useful in other similar situations. Qualitative studies can achieve this type of transferability, or what Firestone (1993) and Merriam (1998) call 'reader/user generalisability', through providing detailed descriptions of the particular context under investigation. Hence, readers of

qualitative research can make informed decisions about the applicability of the findings to their own contexts (Walford, 2001).

In establishing the transferability or reader/user generalisability in this research, I placed emphasis on the context within which the study was conducted. I portrayed the context where the study was undertaken by presenting detailed descriptions of the research setting, the social configuration, the participants' backgrounds, and the process of data collection when writing this research report. With this in-depth information, readers can judge whether a particular finding in this qualitative case study is applicable to their context where the issues of academic writing practices are of interest.

3.6.2.4 Confirmability

'Confirmability' is analogous to 'objectivity' in quantitative research (Lincoln & Guba, 1985). This connotes that the data and findings are neutral and are truly derived from the research participants, not the researcher's biases. However, I found that it was not easy to eliminate my biases during the process of data collection and analysis. Like other qualitative researchers (e.g. Bloomberg & Volpe, 2008; Conrad & Serlin, 2005; Marshall & Rossman, 2006), I acknowledge that my own perspectives, impressions, and personal experiences may have influenced to a certain extent the decision-making process in collecting and subsequently interpreting the data. Drawing on Miles and Huberman (1994), Conrad & Serlin (2005) note that the researcher should be aware of her or his own assumptions, values, practices, and biases during the research process.

In order to enhance the confirmability of this research, I put effort into ***dealing with the researcher's biases*** that may have affected the findings. In so doing, I carefully tape-recorded data and then transcribed them so that I could have access to the data which served as factual information for the study as often as I wanted. As discussed in Section 3.5.2, once the interview session and the collaborative conversation were over, I immediately wrote a field note to reflect on my impressions and rudimentary interpretations of them. This strategy helped me a great deal in recalling each interview situation, and to be self-aware of the factors that may have impinged on my interpretations of the collected data. In reporting the findings, where appropriate, I provided different excerpts from the interview data to present the participants' collective voices. This helped demonstrate that the findings were not personally assumed by me. I also explained clearly the limitations of this study in Section 8.4. This is very important because in this way, I was able to ensure that I had interpreted the data in meaningful and sensitive ways, rather than imposing my own interpretation without justification or acknowledging the limitations of the study.

To recapitulate, the framework of trustworthiness (Lincoln & Guba, 1985) was adopted in order to ensure the soundness of this study because this framework resonates with the philosophical assumptions of the qualitative, interpretive research paradigm. Guided by the four constructs of trustworthiness, namely, credibility, dependability, transferability, and confirmability, different research strategies were used to establish the trustworthiness of this research project. These included, for example, prolonged engagement, triangulation, member checking, use of an audit trail, and identification of user generalisability.

3.7 Ethical Considerations

In all research, ethical issues can arise in all stages of the research process. As a qualitative researcher, I remained attentive throughout the study to my engagement in ethical practices. In so doing, the participants of this study were recruited on a voluntary basis and their informed consent was sought. When I invited them to participate in this study, I also informed them that I was a teacher of English at the ELTU. I also held a briefing session for each prospective participant to give them background information about the research project, including the aims of the study, the type of involvement required from them, and their rights as research participants. It was also stated clearly to the participants that their engagement in this research was voluntary and that they could withdraw from the study at any time throughout the research process.

This study also took into account the participants' rights to review the information (Pole & Lampard, 2002; Silverman, 2006) they had provided during the process of data collection. The participants were asked if they would like to check a copy of their interview transcript. They, however, did not take up the offer, saying that they acknowledged what was tape-recorded and trusted me to transcribe the tape-recorded interviews with accuracy. As mentioned in Sub-section 3.5.2.3, interview data were augmented by the data drawn from collaborative conversations with each research participant. This latter type of data took the form of field notes of my conversations with the participants. To ensure that they subscribed to what was jotted down, I discussed the field-note records with them.

The research participants were also informed about who could have access to the data they provided. Precautions were taken to protect confidentiality of the participants and the data obtained from them. It was made clear to the participants that, apart from me, only another Thai university lecturer who helped me analyse the interviewed data to achieve an inter-coder reliability, as discussed in Sub-section 3.5.4, would have access to some interview transcripts. However, to maintain their anonymity, pseudonyms were used for identification of participants in all of the interview transcripts. Additionally, any personal information that

may reveal their identity would not be disclosed to that lecturer. There were again the issues of confidentiality and anonymity when reporting the research findings. In this thesis, pseudonyms systematically assigned to the participants were used throughout when the participants were referred to. In order to protect the participants' identities, the study reported only the participants' background information necessary for the interpretation and understanding of the research findings.

From an ethical point of view, the issue of reciprocity was also considered in this research project. Reciprocity is a researcher's recognition of and gratitude to research participants for their involvement in the research process (Glesne & Peshkin, 1992; Marshall & Rossman, 2006; Punch, 2005). I realised how important the participants' cooperation and commitment was in sharing their academic experiences with me. Both the students and their dissertation supervisors spent hours in interview sessions while they were also working to a very tight schedule. When conducting this research project in a Thai educational context, I considered reciprocity to be sensitive and situation-specific as it entailed an array of cultural challenges. The issue then was handled in a culturally sensitive way. As such, the study adopted Plummer's (1983) 'situational relativist position', which views that there is no absolute ethical practice applicable to all cultural and social contexts. According to Plummer (1983), the situational relativist position leaves room for a researcher's personal ethical choice on the basis of social, cultural and historical circumstances where the research is undertaken.

This study took into account the issue of offering remuneration to the research participants, a form of reciprocity practiced by researchers from some academic disciplines or cultures. Having discussed this with my Thai colleagues who were also teacher researchers, I found that we were uncomfortable with monetarily rewarding our research participants. In a Thai academic culture - as my colleagues and I perceived - a monetary reward for research participants seemed to create a barrier to establishing a good rapport between researcher and research participant. Its implication was like the employer-employee relationship. Taking a situational relativist position as advocated by Plummer (1983) in relation to ethical concerns, I was fully mindful of a variety of ways to reciprocate sensitively and appropriately in my research context. The reciprocity must not create inappropriate motivation by offering any kinds of overly enticing rewards or benefits for their participation (Bouma & Ling, 2004). Therefore, the student participants were informed at the outset of the study that I could not help out as a proof reader of their dissertations. The reason was that I did not want my proof reading assistance or any kind of writing feedback to affect the nature of their writing practices which was part of research exploration.

The student participants were, however, asked to accept an offer of reimbursement for travel expenses and time spent in attending the interview sessions. It was made clear that the payment was not a form of monetary reward, but I did not want to impose any financial burden on them. In addition, as an indication of gratitude for their cooperation, I offered to share with them my experiences of undertaking graduate studies abroad, and those of being a university lecturer in a Thai university. Some students also discussed with me their concerns about planning and preparing for their studies abroad. These included issues such as preparing for an English language requirement, applying for a scholarship and entering a job market after graduation. The participants seemed to be very interested in this kind of idea sharing; this was because most of them were also seeking an opportunity to further their doctoral studies with an ultimate goal of becoming a university lecturer or university-based researcher. This kind of reciprocity was considered sensible and appropriate, because the student participants could benefit in the long term from our conversational exchanges.

For the teacher participants, it could be said that our interview sessions and conversation exchanges were beneficial to all of us. The interviewing process itself could also provide an opportunity for reciprocity because it helped the teacher participants to understand certain aspects of themselves better (Glesne & Peshkin, 1992; Marshall & Rossman, 2006). For the teacher participants in particular, it was a good opportunity for them to reflect on their role as a dissertation supervisor. They could also benefit from sharing ideas with me in terms of students' academic writing challenges and their expectations of academic support. It was gratifying to be told by some teachers that by being invited to be research participants, they acquired a better understanding of different aspects of students' academic writing needs. This would be very useful for their preparation in providing their students with appropriate academic support. By doing this, it was believed that this study dealt with the issue of reciprocity in a professional way.

3.8 Chapter Summary

This chapter has discussed the theoretical and methodological perspectives that informed the design of this study. It has also argued for the implementation of an interpretive, multiple-case study to explore the dissertation writing practices of Thai graduate students in science disciplines in a Thai university. Situated in an interpretive, qualitative tradition, this study was designed to capture data from different sources to yield rich information in order to understand the issues under investigation. The chapter has also reported the challenges I encountered as a qualitative researcher during the research process and how I tackled those challenges. By explicating both the strengths of this research design and the challenges

confronted, this chapter can well serve as a backdrop for understanding and evaluating the findings of the study to be presented in the subsequent chapters.

CHAPTER 4

CONTEXTUAL BACKGROUND AND OVERVIEW OF INDIVIDUAL CASES

4.1 Introduction

In this chapter, I first portray the disciplinary practices and institutional contexts of the MSc programmes where the research participants of this study were drawn from. I then proceed to introduce the primary and secondary research participants who are later paired up to form five cases. The last section presents the outlines of the five cases, each of which includes a brief biographical and educational background of the student and her or his paired supervisor as well as the way their supervisory relationship developed. This chapter, therefore, serves as a backdrop for data analysis and interpretation in the subsequent chapters.

4.2 Contextualising the MSc Programmes

Contextualising a phenomenon under investigation is methodologically important for an interpretive, qualitative case study because it helps to justify the trustworthiness (Lincoln & Guba, 1985; Stake, 2005) of the research. This section aims at providing an overview of the academic literacy practices and institutional contexts of the research participants' programmes of studies. It is re-constructed from the data drawn from semi-structured interviews and collaborative conversations with the student participants and their paired supervisors. This is complemented by the data elicited from paper-based and web-based documents produced by the university.

4.2.1 Nature of the MSc programmes

Postgraduate education in science differs from country to country and from university to university. At the Faculty of Science at Central Bangkok University, master's degree programmes are research-based with a minimum of two years' duration on a full-time basis. The students are required to undertake one to one and a half years' coursework, followed by writing up a dissertation based on their research projects and attending an oral dissertation

defence. In this study, the research participants were recruited on a voluntary basis from three MSc programmes: petrochemistry and polymer science, biochemistry, and physics. From the interviews with the five students and their paired supervisors who served as research participants in the main study, it emerged that most of the students in their programmes tend to fulfil the requirements of their programmes within three to four years. The major reason why it tends to take longer than the minimum two years to complete the MSc programmes is attributed to the high demands in the scientific research process, which involve planning and running extensive laboratory experiments. The following sub-sections provide an overview of the academic literacy practices on the basis of the three programmes, which broadly falls into three phases: a) coursework, b) research preparation and lab experiments, and c) dissertation write-up and defence. These phases are, however, to a certain extent overlapping.

a) Coursework

The coursework is undertaken across two terms in the first academic year and a further term in the second year. Each term lasts at least fifteen weeks with one or two weeks devoted to written examinations. The students undertake three to four courses each term, each of which requires approximately three hours per week. Most of the required courses are tutor-led lectures or discussions, except for a seminar course where the student is required to give a presentation and lead a discussion. While completing their coursework, the students are expected to master their knowledge of related subject areas by taking part in intensive intellectual discussions. During this period of coursework, one graduate tutor from the programme is assigned to provide pastoral support to all students in the same groups.

To ensure that the students have met the expectations of the programmes during the coursework, they need to demonstrate their competence in and familiarity with reviewing and identifying the associated niche in the literature. The assessment in the tutor-led courses is literature-based in the form of a series of individual or group assignments and presentations, and a few written examinations. As for the seminar course, each student completes one oral presentation based on her or his chosen academic paper and also prepares a short written summary of the paper for the audience. The students in the biochemistry programme are required to take two seminar courses, one in the first term and the other in the second. The students from the petrochemistry and polymer science programme and those from the physics programme take only one seminar course in their second term. The assessment of the seminar course is on the basis of the student's performance during the presentation and their ability to deal with questions raised by other

attendees. The course assessment is performed by the course convener and a further three or four invited tutors from the programme to which the students belong.

b) Research preparation and lab experiments

The research preparation period is an overlapping phase between coursework and laboratory experiments. Students usually start to look for their potential research topics when they embark on the second term of their first year while they are still working on their coursework. It is the student's own responsibility to approach a tutor and ask her or him to serve as a research and dissertation supervisor. If this process is successful, each student will be referred to the supervisor identified as most suited to her or his area of interest, known as a major supervisor, and formal supervision starts. The supervisor will be in charge of academic, research and pastoral support until the student completes her or his studies.

The supervisor usually helps the student under supervision from the early stages to locate a potential research topic for the dissertation project. The supervisors participating in this study reported that it was a common practice for dissertation supervisors in the disciplines of science and technology to provide researchable topics to their students. The five supervisors in this study reported that their students were offered a list of potential research topics to choose from and given some literature to consult. They also guided their students to learn how to locate additional literature on their own.

During the initial stages of supervision, the supervisors arrange several meetings with their students to discuss the literature and the feasibility of the research project, and to prepare a research proposal. According to the University Graduate Studies Regulations, the students need to gain approval of their dissertation proposal within two academic years, starting from the first term of their enrolment in the programme. The research proposal is about three to four pages in length and written in Thai.

When the proposal is satisfactorily completed and submitted to the programme committee, the student is required to attend a research proposal defence with the dissertation committee. The committee members usually consist of the programme director, who chairs the proposal examination, major and second supervisors, and another tutor from the programme. When the students successfully pass the dissertation proposal defence, they can proceed to run their laboratory experiments under close supervision from their major supervisors. While carrying out their laboratory works, they are also encouraged to attend academic conferences and give oral or poster presentations based on current results of their ongoing

research projects. Each of the student participants in this research had given at least two presentations before they started to write up their dissertations.

c) Dissertation write-up and defence

On completion of their degrees, the students are expected to reach a high level of understanding in their chosen areas of research interests. They need to show their ability in designing a research project, as well as their ability to write dissertations with scientific credibility. The dissertation may be written in either Thai or English depending on the agreement reached between the student writers and their major dissertation supervisors. An exception is the MSc programme in petrochemistry and polymer science, for which writing the dissertation in English is compulsory. No minimum or maximum requirement of words of the dissertation is stipulated by the Graduate School. Once the dissertation is completed and then submitted, the student is required to attend a dissertation oral defence held by the same group of committee members who examine her or his dissertation proposal. The major supervisors are supposed to take on the role of observers during the oral defence examination. However, the data from my conversations with the five supervisors informed me that some of them helped their supervisees defend the research projects on certain circumstances.

4.2.2 Place of English in the programmes

The disciplinary practices in the MSc programmes have created an environment that exposes graduate students to English disciplinary language in different ways and degrees. Like most of the MSc programmes across the country, the MSc programmes under present investigation are delivered in Thai. An exception is the MSc programme in biochemistry for which English is used as a predominant language of instruction in two seminar courses. That is, all students are required to give a presentation in English, but they can use Thai when they handle questions raised by the audience. For other MSc programmes, students' presentations in seminar courses are delivered in Thai, but almost all prepare their PowerPoint presentation slides in English, although this is not compulsory. In addition to scant exposure to English in their seminar courses, reading seems to be a major source of their English disciplinary language acquisition for students from all programmes since all textbooks and academic journals used in the programmes are in English. This seems to also be a common practice in graduate education in the disciplines of science and technology in other EFL contexts.

As previously discussed, dissertations completed on these programmes can be written in either Thai or English, with the exception of the MSc programme in petrochemistry and polymer science. Other writing practices in the programmes, such as writing course assignments, answering written exam questions, and recording lab experiment results, are in Thai.

The Faculty of Science does not provide any formal English language support to its MSc students who opt for English as their language of choice for dissertation writing. The students who meet the programmes' English language requirement are expected to take their own responsibility in handling any linguistic demands that may emerge during the course of their graduate studies. Usually, their major supervisors play a prominent role in providing their students with language assistance during the dissertation supervision period.

Some students may resort to the university's English Language Teaching Unit (ELTU) for formal language courses. Having operated for more than two decades, the ELTU is considered one of the largest English language teaching units among educational institutes at the tertiary level in Thailand. It employs around one hundred full-time teaching staff with approximately fifteen per cent being English native speakers, and a number of part-time teaching staff. The ELTU offers sixty-nine compulsory and elective English courses to undergraduate students and fifteen other courses to postgraduate students across the university. The ELTU's priority is, however, to serve a rapidly increasing number of undergraduate students who attend English courses as part of their degree programmes. To promote autonomous learning and encourage the students to study at their own pace, the ELTU has established the Self-Access Language Learning Centre (SALLC) for the students. At the time of this study, the ELTU also offered one-to-one writing tutorials and some writing workshops to those who wanted to obtain feedback on or improve their academic writing.

For MSc programmes, English is not a compulsory element of the curriculum. However, the students can be registered in some courses as electives. Those accepted on to the programmes but who do not attain the minimum score of 450 on the ELP test can enrol on, and then aim to pass, the English for Graduates I course as a substitute for re-sitting the ELP test. This course focuses on general reading and writing skills, such as guessing word meaning from context, reading for main ideas, and writing a short summary from a reading text. Listening and speaking skills are supplementary. There are nine other courses that science graduates who have already met the language requirement can enrol on. None of them is entirely devoted to academic writing or dissertation writing.

Having presented the overview of the context and academic literacy practices of the MSc programmes, I will introduce the research participants of the present study in the following section.

4.3 Introducing Research Participants

As discussed in Sub-section 3.5.1, the research participants in the main study were classified into two groups: primary research participants and secondary research participants. The following sub-sections introduce the participants from both groups and describe how they were paired up to form five individual cases for further analyses and interpretations.

4.3.1 Primary research participants

The primary research participants were five MSc students in their mid-twenties drawn from three programmes in the discipline of science. They were referred to by pseudonyms as Pat, Anne, Ken, Joy and Wan. This research focused on their experiences of dissertation writing as an axis around which other literacy activities in the programmes revolved. Therefore, these student participants were considered 'primary' because they served as major informants or sources of data necessary for the study. Of the five, two were females from petrochemistry and polymer science, two were females from physics and the fifth was a male from biochemistry. As previously articulated in detail in Sub-section 3.5.1 concerning focal participant selection, gender was not imposed as a selection strategy. All student participants received their bachelor's degrees from Thai-medium universities and had no previous experiences of studying abroad. At the time the data were collected, they were in the first term of their fourth academic year and in the dissertation writing-up stage.

These participants' English language learning experiences were quite typical for Thai university students who are not majoring in foreign languages. For their undergraduate studies, all subject courses in science were taught in Thai. The five student participants were awarded their first degrees from three different universities. In their undergraduate years, three English language courses were compulsory across the three universities. That is, they were required to take two general English courses and one EAP course. All five students reported that the three English courses that they had undertaken at their universities were taught by Thai teachers of English who used a combination of Thai and English as a medium of instruction. Regarding the English language requirement for admissions to graduate studies, four of them sat the ELP test once and successfully passed it. Ken, a graduate student on the biochemistry programme, was the only one who needed to take the ELP test twice to meet the minimum score requirement.

Of the five participants, only two had worked full time before entering the programmes: Joy had served as a high school physics teacher for two years, and Ken had worked as a field research assistant on a one-year contract basis in a biology laboratory. Anne and Joy worked as laboratory teaching assistants for their departments after working on their coursework for one year. Pat and Wan did not have any work experience. Overall, the participants' goals after completing their master's degrees could be broadly divided into two categories. Pat, Ken, Joy and Wan wanted to pursue a doctoral degree and then work as an academic in a university whereas Anne wished to immediately enter the work market as a researcher.

4.3.2 Secondary research participants

The second group of participants consisted of five dissertation supervisors. They were the primary research participants' paired supervisors, recruited to participate in this study because of their significant role in helping the student participants in the process of research design and dissertation writing. Since the data drawn from them were used to complement those elicited from the primary research participants, these participants were regarded as 'secondary'. The secondary research participants were referred to by pseudonyms as follows: Aj Patcharee, Aj Worapong, Aj Nisakorn, Aj Boonyarit and Aj Dhirayu. Of the five participants, four were the paired major supervisors of four of the student participants. The other, Aj Nisakorn, was Ken's second supervisor. Since the early stages of collecting the data for his research, Ken's major supervisor referred him to Aj Nisakorn because he was invited to help establish a new graduate programme in another provincial university. In this study, Ken's second supervisor was considered to be an appropriate research participant because she, rather than the major supervisor, was responsible for providing close supervision to Ken, especially during the dissertation writing period.

All supervisors received their first degrees from Central Bangkok University and afterwards pursued their postgraduate studies abroad. Three completed their doctoral studies in the USA, one in the UK, and the other in Sweden (in an international programme where English is used as a medium of instruction). These participants were considered to be in their mid-careers with less than ten years of teaching experiences. The number of master's students each had supervised as a major supervisor ranged from one to six.

4.3.3 Boundaries of individual cases

Following Yin's (2003) case study design, the context where texts, or dissertations, were produced was used as a basis for identifying a case. In this study, the Faculty of Science as a broad institutional context of writing was considered complex since disciplinary practices

adopted by its members may vary. The theoretical framework guiding this study, as discussed in Chapter 2, calls for a closer look at the more local, immediate, interactive context of students' writing. This study, therefore, identified the boundaries of individual cases on the basis of the student-supervisor relationship. Table 4.1 provides an overview of background information of the participants and cases.

Table 4.1: Background information of the participants and formation of individual cases

Cases	1	2	3	4	5
Students	**Pat**	**Anne**	**Ken**	**Joy**	**Wan**
Age	26	25	27	27	25
Gender	Female	Female	Male	Female	Female
Programme of study	Petrochemistry and polymer science	Petrochemistry and polymer science	Biochemistry	Physics	Physics
Years in the programme	3.5	3.5	3.5	3.5	3.5
ELP test score	456	455	440/464	512	453
No. of English courses taken at undergraduate level	2 (GE)[1] 1 (EAP)[2]	2 (GE) 1 (EAP)	2 (GE) 1 (EAP)	2 (GE) 2 (EAP)	2 (GE) 1 (EAP)
No. of English courses taken at graduate level	2 (ELTU)[3] 1(PLS)[4]	1 (PLS)	2 (PLS)	1 (ELTU)	1 (ELTU)
No. of conference presentations	2 (OP)[5] 1(PP)[6]	1 (OP) 1(PP)	3 (OP) 2 (PP)	2 (OP)	1 (OP) 1(PP)
Work experience	None	TA for undergraduates	Research assistant	High school physics teacher	None
Goals after graduation	Undertaking a PhD Working as an academic	Working as a researcher	Undertaking a PhD Working as an academic	Undertaking a PhD Working as an academic	Undertaking a PhD Working as an academic
Students' paired supervisors	**Aj Patcharee**	**Aj Worapong**	**Aj Nisakorn**	**Aj Boonyarit**	**Aj Dhirayu**
Gender	Female	Male	Female	Male	Male
Relationship to the student	1st supervisor	1st supervisor	2nd supervisor	1st supervisor	1st supervisor
No. of students currently under supervision (as a major supervisor)	1 PhD 6 master's	6 master's	2 PhD 5 master's	2 master's	1 PhD 2 master's

4.4 Exploring Individual Cases

This section presents the outlines of the five cases. Each case starts with an introduction to the personal histories of each student-supervisor pair, followed by their engagement in key academic literacy practices when they embarked on their supervisory relationship. The information was drawn mainly from the student background questionnaires and the semi-structured interviews with the students and their paired supervisors. The backgrounds of the five cases are crucial as they serve to complement the analysis and discussion of the focal students' dissertation writing practices in the chapters that follow.

4.4.1 Case 1: Pat and Aj Patcharee

a) Biographical backgrounds

Pat was a graduate student in her mid-twenties working on her master's degree in petrochemistry and polymer science. After obtaining her first degree from a regional university, Pat was attracted to the programme at Central Bangkok University due to its recognition as a leading and well-established programme in the discipline of science in Thailand. Although she entered the programme without any professional experience, she had exhibited a clear sense of direction and determination in her studies and career path. She planned to continue her doctoral studies in the same programme and later work as an academic.

Reflecting on her own English background, Pat recognised her limited English proficiency with a lack of writing experience in particular. As an undergraduate student, she took two compulsory general English courses in her first year and another compulsory EAP course in the second year. She received a B$^+$ for all courses, but she believed there remained room for improvement in her English. Pat also noted: "It's easier to earn good English grades at my university, a small university in a provincial area, compared to here [Central Bangkok University]" (Pat, First interview). Pat obtained a score of 456 on the ELP test, which met the programme's requirement. Once she joined the programme, her major concern was that she needed to write her dissertation in English because it was part of the programme's

graduation requirements. She felt it imperative, and was also encouraged by her supervisor, to prepare herself to cope with the demands of writing a dissertation in a foreign language by taking English courses from the early stages of her graduate studies.

Unfortunately, the ELTU did not offer any academic writing courses specifically geared towards dissertation writing to graduate students. Pat thus opted to enrol on two graduate English courses on offer: English Grammar in the first term, and Graduate English I in the second term. She also attended another grammar course in a private language school when she was in her second year. Despite the fact that those courses did not explicitly deal with academic writing, she believed that they could, at least, equip her with adequate grammatical knowledge beneficial to her dissertation writing.

Aj Patcharee was Pat's supervisor. Apart from Pat, she was at the time supervising five other master's students and one doctoral student. In her late thirties, she had been teaching on the programme for about ten years. Aj Patcharee, who gained her PhD from a prestigious American university, was considered to be one of the most active and successful lecturers and researchers among mid-career teaching staff in her department. She had received the Young Scientist Award in the field of science and technology from the university, and had some experience as a visiting researcher in an American and a Japanese university. She had published at least twenty journal articles in English, all of which appeared in international journals. She was also praised by many of her colleagues for having an extensive knowledge of the English language, and attending to her students' English language development. She noted: "We don't provide any formal English support to our students in this programme. To be fair to my students, I do my best to help them overcome language barriers when they are in the programme" (Aj Patcharee, Interview).

b) Entering into the supervisory relationship

Around the end of the first academic term, Pat approached Aj Patcharee to ask her to serve as a research and dissertation supervisor. She met Aj Patcharee from attending the student-teaching staff meeting held by the programme at the beginning of the term. The main purpose of the meeting was to introduce new master's students to the programme tutors' research interests so that the students could identify their potential dissertation supervisors when they proceeded to the second term. One of the major reasons why she approached Aj Patcharee was that she was interested in Aj Patcharee's research areas. Pat also noted: "Additionally, I was told by some senior students in the programme that she provided her students with good pastoral and academic support. It was this kind of supervisor whom I looked for" (Pat, First interview).

From the beginning of the second term, Pat had several meetings with Aj Patcharee to plan her research project and dissertation. Pat had a broad topic, which grew out of her reading of the literature in the field when she was completing the coursework. Without the availability of the required instruments in the lab, she was told that the topic would not be workable. Pat later arrived at a new topic she chose from a list provided by her supervisor. Although the research topic was given with some direction, Pat still needed to be proactive in coming up with the research design in detail when she set out to plan a research proposal. In the initial stages, she had to perform an extensive literature search, in addition to the resources provided by her supervisor. Pat said: "Locating the relevant literature at the beginning of the proposal preparation was really hard and time-consuming, because as an inexperienced researcher I did not really know where to start" (Pat, First interview). Through her own experience of being a graduate student, Aj Patcharee was well aware of this issue. This experience greatly contributed to the way she provided support to Pat in this stage of proposal preparation. She said: "For Pat, I gave her a list of journals that focus on publications on her topic. I also gave her some key words so that she could search for more information with ease." (Aj Patcharee, Interview).

Since Pat entered into the supervisor-supervisee relationship with Aj Patcharee, she had engaged in many academic activities. Aj Patcharee held a research group meeting for all students under her supervision. She set a rule that all students were required to attend this weekly meeting and each to present their work in progress. These group meeting activities played a key role in Pat's graduate life. When Pat was preparing for her seminar course presentation, she was encouraged to practise her presentation in the group meeting. During the course of her proposal preparation, she also presented a review of some of the literature and her research design in the research group meeting. She found that comments she received from other group members, including those from her supervisor, were invaluable in helping her refine the proposal.

With the realisation of her students' language needs, Aj Patcharee set aside some research group meetings specifically for helping the students to improve their English through reading the literature in their discipline. To do so, she set up what she called 'a journal club'. She brought in a journal article in English, and let the students read and discuss it in order to check the students' reading comprehension. According to Aj Patcharee, the primary aim of this reading-and-discussion activity was to raise the students' awareness of the language used in the paper. She hoped that this would later equip the students with some linguistic knowledge of academic writing. Pat said: "It's very useful. For example, when we went through a particular section, my supervisor usually pointed out some expressions and

explained why they were used in this way. Later, I found I could apply many of those expressions to my dissertation writing too" (Pat, First interview).

Pat started running her lab experiments around the end of her second year in the programme. In her third year, she gave two oral presentations at national conferences before she started to write her dissertation. To be accepted for each conference presentation, Pat needed to submit a conference paper in English to the conference reviewers. Writing a conference paper in English, although it was only about four pages in length, seemed to pose major difficulties for her because she had never written anything longer than a short paragraph in English from her previous English classes. However, she said that she received generous support from her supervisor and some friends from the research group meeting in preparing and writing the paper.

Pat started to plan her dissertation writing around the end of her third academic year. She was particularly frustrated by her limited English: "At that time, I didn't think that I could write it in English because my writing was not very good. I struggled a great deal even when I wrote just a short conference paper" (Pat, First interview). She felt much better when her supervisor reassured her about dissertation writing in English. With her supervisor's understanding, Pat believed that she would receive unflagging support from her during the dissertation writing process.

4.4.2 Case 2: Anne and Aj Worapong

a) Biographical backgrounds

Anne was a postgraduate student in her mid-twenties. After she earned a bachelor's degree in chemistry from Central Bangkok University, she enrolled in a master's programme in petrochemistry and polymer science in the following academic year. Anne also worked as a laboratory teaching assistant in the Department of Chemistry after finishing her first-year coursework. Her major responsibility included teaching undergraduate students how to run basic laboratory experiments. Unlike the other student participants in this study who aimed to pursue their doctoral studies, Anne planned to work in the petrochemical industry immediately after graduation.

In her undergraduate years, Anne attended three compulsory English courses: two general English courses and an EAP course. The two general English courses focused on all four language skills while the EAP course emphasised reading and summary writing on general science topics. Having received a D and a D^+ for the two general English courses and a C^+

for the EAP course, Anne perceived that she had not been successful in learning English in her undergraduate studies. She attributed this to her pre-university English education which placed an emphasis on learning discrete grammatical rules and practising reading as preparation for the national entrance examination for Thai university admissions. Anne, therefore, found it difficult to adapt herself to meet the expectations of the undergraduate English courses, particularly for writing and speaking skills.

When Anne applied for a place to study on the master's programme, she passed the ELP test with a score of 455. Anne said: "I was just lucky to pass the test. It was a multiple-choice test, so it might be my test-taking strategies that helped me pass it" (Anne, First Interview). In spite of being aware of her limited English language proficiency, Anne did not take any English courses offered to postgraduate students by the ELTU while she was in the master's programme. The reason was that she had a tight schedule due to undertaking the coursework, working as a teaching assistant, and running lab experiments. When Anne had nearly finished her lab experiments around the end of her third year, she took one grammar course in a private language school as preparation for her dissertation writing.

Aj Worapong served as Anne's major dissertation supervisor. In his late thirties, he had published at least twenty-five research articles in international journals. Apart from Anne, he was supervising five other master's students at the time. Aj Worapong holds a doctoral degree from one of the top research universities in science and technology in the USA. He already had approximately eight years of teaching experience at the postgraduate level. He described himself as a scientist who had enjoyed learning English since he was young. On the bookshelves in his office lay English dictionaries, grammar books, and many novels in English. He noted: "I always need some reference sources at hand [pointing to the bookshelves], especially when I'm revising my own or my students' writings. I feel uncomfortable if I cannot solve the language problems I am facing" (Aj Worapong, Interview). He acknowledged that his English language background had a profound influence on his expectation of students' dissertations. Setting a quite high standard for his students' dissertations in terms of language, he realised that to some extent, he made more effort than some other colleagues in polishing the multiple drafts of his students' dissertation chapters.

b) Entering into the supervisory relationship

Like Pat and other course colleagues on the master's programme in petrochemistry and polymer science, Anne attended the student-teaching staff meeting held by the programme in the first academic term. Anne also learned more about Aj Worapong's research interests

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and those of other tutors from this meeting. At the end of the first academic term, Anne approached Aj Worapong to ask him to serve as her dissertation supervisor. Reflecting on her strategy to choose a supervisor, she said: "It was more than looking for someone whom I share the same area of research interest with" (Anne, First interview). One of the major reasons why Anne approached Aj Worapong, apart from considering his research area, was that he used to supervise her senior research project when she was a final year undergraduate student. From her own experience of working with him at that time and from her conversations with other master's students under Aj Worapong's supervision, Anne found that he was very academically supportive, especially when his students encountered technical problems in running lab experiments. To Anne, this type of supportive mentoring was the principal quality she hoped to gain from a potential supervisor.

The supervisor-supervisee relationship between Aj Worapong and Anne started with informal mentoring at the beginning of the second term when Anne was preparing an oral presentation for her seminar course. Like Aj Patcharee, Aj Worapong also held a regular research group meeting for all students under his supervision. He suggested that Anne practise giving a presentation in the research group meeting. Introduced to the group meeting for the first time, Anne received useful comments from other group members in relation to her delivery of the presentation and the content of the slides she had prepared. She revised the slides, based upon the comments received, with help from Aj Worapong before she went to the seminar class.

In parallel to assisting Anne with the seminar course, Aj Worapong arranged several meetings with Anne to discuss her research and dissertation preparation. Anne came across her research topic from reading the literature when she was working on one assignment in her first term. It was, however, rejected because "He [Aj Worapong] said it was not feasible to conduct because the lab could not afford the instruments needed. The research was also too big for a master's level" (Anne, First interview). Aj Worapong offered Anne a new research topic which was a continuation of another dissertation recently completed by Tim, one of his students.

With the topic agreed by both parties around the end of the second semester, Anne drew on different resources for her research proposal preparation. Apart from browsing the related literature from journal articles and receiving advice from Aj Worapong, she also sought help from Tim. Where possible, she discussed her research project with him, especially when she had difficulty understanding certain lab techniques. Tim also gave Anne his research proposal, which she later used as a model for developing hers.

After the proposal had been formally approved, Anne ran lab experiments for almost a year to obtain sufficient data. During the course of her repetitious experiments to confirm the results, she presented her research progress to the group meeting on a regular basis. As such, she received more formal feedback from her supervisor in addition to general discussions while she was handling the experiments in the lab. Also encouraged by her supervisor, Anne gave a poster presentation at a national conference after she had conducted the research for six months. A few months later, she gave an oral presentation at another national conference. The two presentations she delivered not only helped her build up confidence in participating in her disciplinary community, but also made her aware of the demands of English academic writing. Although Thai was used as a medium of communication in both conferences, Anne was required to submit a conference paper of her research project in English to the conference reviewers. Anne had difficulty preparing the conference paper due to her limited English knowledge. To prepare the first draft of the conference paper, she browsed several journal articles in her field and borrowed some expressions to use in her writing. Apart from her dependence on the literature, Anne seemed to rely on her supervisor as another major source of help. Anne redrafted the paper several times based upon her supervisor's feedback. Certain parts of the draft were extensively rewritten and the final draft was carefully edited and polished by her supervisor before its submission.

When Anne was preparing for the second conference presentation, she was also planning her dissertation writing. Like Pat, Anne's major concern about her dissertation writing at the time seemed to relate to her limited English knowledge. She acknowledged that she had underestimated the demands of writing a dissertation in English. Reflecting on her writing preparation, Anne noted: "I should have taken more English courses to prepare myself for dissertation writing. I just kept putting it off. Then, it was too late. When I was preparing to write my first draft, I realised that I would definitely have problems with writing the dissertation" (Anne, First interview).

4.4.3 Case 3: Ken and Aj Nisakorn

a) Biographical backgrounds

Ken was a 27 year-old student working on his master's degree in biochemistry. After obtaining his first degree from Central Bangkok University, he was employed as a field research assistant on a one-year contract basis to work for a research team led by Professor Sakol, an academic in his department. Ken's main responsibility included surveying the biodiversity of insects in different regions of Thailand and writing up a report based on it. He also needed to help other members of the research team to run some basic lab

experiments. After finishing the one year contract, Ken continued his master's degree and continued to join Professor Sakol's lab when he was undertaking his dissertation.

Ken could be considered to be one of the most outstanding undergraduates with a strong academic background in science. This was one of the main reasons why he was recruited to work as a research assistant, a post which was very competitive in his department at the time. Before the working contract was completed, Ken needed to write one report based upon the assigned field survey for Professor Sakol. The report was about ten pages in length and needed to be in English. Ken recounted that writing that report was the most painful writing experience of his working life. He attributed his difficulty in completing the report to his small range of vocabulary and limited grammatical knowledge. His coping strategy at the time was to first write the report in Thai and then make an effort to translate it into English. When it came to the translation process, Ken realised that translation across the two languages was not as easy as he had previously thought. He finally sought help from two doctoral students in the lab: "I thought they [the two doctoral students] would understand that I really had a hard time, so they helped me translated it, almost every single sentence" (Ken, First interview).

Ken seemed to have the lowest English proficiency among the student participants under study. He considered himself to be an unsuccessful English learner at the university level. As an undergraduate student, he did not attend to learning English because he found it very difficult and also believed that his strong science knowledge would adequately determine his success for university studies. Ken took three compulsory English courses when he was an undergraduate student and received a D for all courses. When he took the ELP test for the first time, he scored 440, which did not meet the programme's requirement. He, however, was offered a place to study with the condition that he needed to obtain a score of 450 before leaving the programme. Ken had later taken a TOEFL preparation course in a private language school for several months before he re-sat the ELP test for a second time around the end of the first academic year. At the second attempt, he received a score of 464.

As a postgraduate student, Ken was well aware that his weakness in English may hinder his overall academic success if he wanted to write his dissertation in English or to pursue his doctoral studies in the future. Ken said: "I am still haunted by my struggles with writing the field survey report in English and taking the ELP test twice" (Ken, First interview). He was thus determined to continue to take two more grammar courses in a private language school in his second academic year. He believed that with his improved grammatical knowledge,

he could acquire a firm foundation that contributed to his having a better control over his writing and other language skills.

Aj Nisakorn was in her late thirties with a doctoral degree from an American university. She had had approximately eight years of teaching experience at the master's level. As a major supervisor, she had supervised four master's students and at the time of this research, she was supervising five master's students and two doctoral students. She had published five papers in international journals, two papers in domestic journals, and four proceedings at domestic conferences. All publications were in English. Unlike the four other supervisors, Aj Nisakorn voiced her concern about her own English proficiency during the process of dissertation supervision. Although she went to an Anglophone university for her doctoral studies, she found that it was not easy to achieve good academic writing in English. It was more difficult, as she reflected on her dissertation supervision experiences, when she needed to provide her students with language feedback in their dissertation drafts. She noted: "Very often, I'm not very sure about my feedback on the use of English when I have to comment on my students' writing drafts. I'm not confident; my English is not very good" (Aj Nisakorn, Interview).

b) Entering into the supervisory relationship

Ken's entry to the supervisor-supervisee relationship was different from the other four student participants. Ken had initially worked closely with his first supervisor, Professor Sakol, to shape the direction and scope of his research since the start of his graduate studies. Ken had known Professor Sakol, a well-established professor in his fifties, since he was an undergraduate student. At the time, he attended a couple of courses taught by Professor Sakol and also worked on his senior research project under his supervision. With high academic achievement and responsibility, Professor Sakol decided to hire Ken as a research assistant for his research project on the diversity of insects in Thailand after his graduation.

Encouraged by Professor Sakol, Ken decided to pursue his master's degree specialising in the biodiversity of honeybees in Thailand, one of the main foci of the research project he had previously worked on as a field research assistant. Of the five primary research participants in this study, Ken thus seemed to be the only one who had a clear idea of what he wanted to conduct his research on from the outset of his graduate studies. Once joining the master's programme, Ken was accepted by Professor Sakol to join his lab as a graduate student under his supervision. Ken's dissertation topic was clearly guided, which was in line with part of the larger research project conducted by Professor Sakol's research team. To Ken, writing his dissertation research proposal was not difficult because he had been given

clear suggestions from his supervisor and also from other doctoral students working in the same lab. Professor Sakol had held some discussions with Ken to shape his proposal since the start of his graduate studies. Ken's experience as a research assistant also appeared to be very advantageous for his proposal preparation for two main reasons. Firstly, he had already learned research skills and the literature necessary for his research project and proposal preparation. Secondly, he could establish good relationships with other more experienced research students in the lab who later turned out to be his sources of academic support.

Ken was satisfied with the support he received from Professor Sakol. However, when his research proposal was formally approved, Professor Sakol was invited to help chair a newly established programme in a provincial university. With his busy schedule and often being away from the university, Professor Sakol asked Aj Nisakorn, who also worked in the same research team and served as Ken's second supervisor, to step in to take charge of Ken's research project and dissertation. Although she was not involved in the shaping of the research proposal since its early stages, she and Ken seemed to be successful in building a productive working relationship with one another. Ken attributed this to the good rapport they had established when he was working as a field research assistant.

Ken needed to be away from the university quite often to complete his fieldwork. He visited different provinces to collect samples of honeybees for his research. He spent about six months visiting several farms and national parks in order to obtain enough samples for his lab experiments. He also spent several months working extensively in the lab before receiving satisfactory lab results. While Ken was working on his lab experiments, he attended five conferences as a presenter. Ken gave three oral presentations and one poster presentation at domestic conferences and another poster presentation in Singapore. Ken said that he was encouraged by Aj Nisakorn to attend the conferences: "She said it was a good opportunity for me to get feedback from others. She also helped me prepare the conference papers and presentation slides, and even looked for financial support for me" (Ken, First Interview). Aj Nisakorn noted: "I encouraged all of my students to give a presentation. Ken was really worried about it. But each time I asked some students with more experience from the same lab to come along and help coach him." (Aj Nisakorn, Interview).

Ken also recognised the benefit of producing conference papers. He said that it took time to write one paper although it was only a few pages long. He found that the by-product of writing his conference papers was that he could learn how to write academic English in his discipline. He asserted: "It was like I was doing a writing exercise. I could learn how to

write, especially from the feedback I got from my supervisor or other doctoral students in the lab" (Ken, First interview).

4.4.4 Case 4: Joy and Aj Boonyarit

a) Biographical backgrounds

Joy obtained her first degree in physics from Central Bangkok University. She had worked as a high school physics teacher before pursuing a master's degree in the same field. Having served as a teacher for two years, Joy realised that she wanted to work as a researcher or university lecturer rather than teaching basic physics concepts to high school students. She, therefore, aimed to earn both a master's and a doctoral degree in physics in order to be qualified for her future career. Joy was twenty-seven years old at the time of the data collection for this study. Like Anne, Joy also worked as a lab teaching assistant for her department after finishing the first year's coursework.

Of the five student participants, Joy seemed to possess the highest level of English proficiency on the basis of her ELP test score and her undergraduate English learning background. She attained a score of 512, which met the programme's English language requirement. In her undergraduate years, Joy took three compulsory English courses: two general English courses focusing on all four language skills and one EAP course with an emphasis on reading and summary writing. Joy was the only student participant in this study who took an additional English course as an elective, which focused on academic communication skills. She received a B$^+$ in all of the four courses. Joy was satisfied with her English ability because she could "successfully handle the readings of the specialised literature in my field when I was doing my coursework" (Joy, First interview). However, she became frustrated when she decided to write her dissertation in English. She felt that she was not well prepared to cope with such a lengthy piece of academic writing because all of the English courses she had taken were not specifically geared towards academic writing. To prepare herself to handle the perceived writing demands, Joy attended the Skills for \Graduate Studies course at the ELTU and attended several writing tutorial sessions provided by the SALLC.

Aj Boonyarit was in his late thirties with a doctoral degree from a Swedish university. After completing his doctorate, he worked as a senior researcher in another Swedish university for one year. On his return to Thailand, he continued to work at Central Bangkok University where he had previously held a post of lecturer in physics. Over his five years as a research student, he mainly used English because it was a medium of instruction in his programme of

studies. As a researcher in Sweden, he also communicated orally in English with his colleagues and prepared all research reports in English. Aj Boonyarit recounted that rarely had he used Swedish for everyday communication in the academic and professional settings when he was there.

With about seven years of teaching experience at a graduate level, Aj Boonyarit had supervised four master's students. He was supervising another master's student in addition to Joy at the time of this data collection. He had published about twenty papers in international journals, many of which were co-authored with Swedish researchers. He had also established a network with researchers from Swedish universities. Where possible, he invited them to be guest lecturers in the master's course he taught. To encourage his students to improve their English competence necessary for their academic and professional needs, he made the effort to teach a master's course under his responsibility in a combination of Thai and English. Although he noted that some students found it difficult to understand his lecture in English, he believed that it was a practical way to expose his students to English, which would help them to gradually learn English in this EFL setting.

b) Entering into the supervisory relationship

Initially, Joy had not planned to complete her dissertation under the supervision of Aj Boonyarit. In her second term in the programme, Joy approached one tutor, Aj Rarin, who was supervising several postgraduate students at the time. She wanted to complete her dissertation under Aj Rarin's supervision on two grounds. Firstly, she had taken one course with Aj Rarin and found that she was not only very academically supportive, but also highly accessible to her students in a supportive context if they had any other issues they wanted to discuss with her. With this in mind, Joy perceived that she could easily establish a collaborative and productive relationship with Aj Rarin during the supervision period. Secondly, Joy was interested in conducting theory-based research, focusing her work on the analysis and synthesis of the literature. Joy learned from senior students that Aj Rarin was among a few tutors in the programme who were interested in this kind of research. Unfortunately, when Joy approached her, Aj Rarin could not accept her because at the time, she had so many students under supervision. Joy said: "She [Aj Rarin] was afraid that she could not provide effective support to all of her students… I was so desperate because most of my friends all had a supervisor at that time" (Joy, First interview).

Aj Rarin, however, tried her best to help Joy find a supervisor. She suggested that Joy approach Aj Boonyarit and reassured her that Aj Boonyarit was also very supportive of his students. Joy said: "I was not really interested in his [Aj Boonyarit's] research field because

it focused on experimental research. I was also not sure if we could get along well" (Joy, First interview). As Joy felt that she lagged behind her course colleagues in finding a supervisor, she later made a decision that she would complete her dissertation with Aj Boonyarit. Since she approached Aj Boonyarit around the end of the second term, Joy could not receive any help from him concerning her seminar course presentation.

Before coming to work with Aj Boonyarit, Joy was undecided as to whether she should write her dissertation in English or Thai. Aj Boonyarit encouraged his students, especially those who planned to pursue their doctoral studies, to write their dissertations in English. However, he perceived that most of his students were too worried to write their dissertations in English for fear of language difficulties which may delay their dissertation completion. In order not to put pressure on Joy, he suggested that Joy should try to write the dissertation in English first. If Joy could not do it, she could later change to writing it in Thai. Aj Boonyarit also realised that Joy was overwhelmed by the myriads of related literature. He noted: "It was quite difficult for Joy because she did not plan to do lab experiments for her research. Her reading in the past seemed to focus on theory-based papers which are very different from her reading list for her present topic" (Aj Boonyarit, Interview). Although Aj Boonyarit provided Joy with the clear scope and lab experiment design of the research, he also expected Joy to exhaust the literature while preparing her proposal. For Aj Boonyarit: "Reading the literature extensively helps the students to learn in depth about their research topics; it also helps them learn how to write from what they read" (Aj Boonyarit, Interview). He held the view that Joy should observe scientific English in the discipline from the early stages of planning her research project. This would best prepare Joy, he believed, to cope with the demands of writing her dissertation.

Joy felt that she was given full support from her supervisor in steering her research project. She also established a good rapport with him more easily than she had previously thought. Joy attributed this to her supervisor's attempts to cultivate an informal relationship with all of his graduate students. Aj Boonyarit also acknowledged: "I always want my students to see me as a *Roon Pii* (senior fellow student in Thai) in order that they would not feel uncomfortable about approaching me when they need any help" (Aj Boonyarit, Interview). He believed that such a relationship would facilitate him and his student to communicate their expectations to each other in a way that productively advanced their work together.

4.4.5 Case 5: Wan and Aj Dhirayu

a) Biographical backgrounds

Wan was in her mid twenties when she participated in this study. After obtaining a bachelor's degree in physics from a regional university, in the following academic year she entered a master's programme in physics at Central Bangkok University. She also planned to pursue her doctoral studies in the same university. Regarded as one of the country's leading research universities in science, Central Bangkok University was on Wan's list for graduate studies because, as she believed, the degrees to be awarded would greatly improve her chances of obtaining a post as an academic or researcher in a Thai university.

In her undergraduate years, Wan said she had given priority to the science subjects. She considered that the compulsory English courses were merely required foundation courses that all first and second year students needed to take. Wan noted: "Like many of my friends, I just wanted to complete them. I didn't think they were as urgent and important as science subjects" (Wan, First interview). Without paying much attention to the English courses, she received a C and a C^+ for the two general English courses and a C^+ for the EAP course. Wan felt that due to her neglect of English, she received her first degree with limited English knowledge: "At the time my English was very poor. I think my English could be like that of a high school student. I didn't see its importance, so I didn't learn it" (Wan, First interview). However, Wan could meet the programme's English proficiency requirement by earning a score of 453 on the ELP test.

When Wan was undertaking the coursework, she did not expect to write her dissertation in English. However, when she was about to write her first draft, she made a decision to opt for English for writing her dissertation. As urgent preparation, she took one English course at the ELTU. Unfortunately, she could not catch up with the class and was also very anxious about studying with other classmates who seemed to have much higher language proficiency than her. Wan dropped out from the class after four weeks.

Aj Dhirayu had been in the programme for about ten years and had supervised three successful master's students. At the time of this research, he was supervising Wan, one master's student, and a doctoral student. Aj Dhirayu received a doctoral degree in physics from a prestigious university in the UK and embarked on his teaching career immediately upon his return to Thailand. He had published about twenty papers in international journals with high impact factors. Working collaboratively with lecturers from the Faculty of Engineering, he was leading five research projects with grants from the university and other

government bodies. He acknowledged that he was very busy with his research projects and his teaching at both undergraduate and graduate levels. He also realised that his busy schedule sometimes caused him to have limited time for his supervised students.

b) Entering into the supervisory relationship

Wan first met Aj Dhirayu in the student-teaching staff meeting held by the programme at the beginning of the second term. In the meeting, Aj Dhirayu gave a presentation based upon his research project he had conducted in collaboration with another teaching staff from the Faculty of Engineering. Before finishing his presentation, he offered a list of research topics that he welcomed master's students to conduct under his supervision. Wan was interested in one of the topics, so she approached Aj Dhirayu a few days later.

When Wan entered into the supervisor-supervisee relationship with Aj Boonyarit in the second term, she was also preparing for the seminar course. Most of her course colleagues seemed to be well supported by their supervisors in preparing for the seminar course, but Wan felt that she did not receive much help from her supervisor. Anne recounted that she had several meetings with Aj Dhirayu to discuss her research proposal, but she rarely had an opportunity to discuss her preparation for the seminar course presentation with him. She once asked Aj Dhirayu for an opinion about choosing a paper for the presentation. Wan said: "He only suggested that I pick up any paper I needed to read as part of my literature review for it. It seemed he didn't care much about my seminar course" (Wan, First interview). Wan, therefore, made her own decision in selecting the paper and did not ask for any help from her supervisor in editing the presentation slides. To compensate from what she perceived as shortcomings of her supervisor in provision of academic support at this stage, Wan turned to some friends for help, particularly when she had difficulty preparing the presentation slides. Wan perceived that the supervisory relationship between her and Aj Dhirayu was quite formal and hierarchical. As such, she tended to discuss only the issues directly related to the research project, and otherwise maintained a distance from him in terms of other, less formal issues.

During the course of Wan's several months of engagement in preparing her research proposal, she was generally satisfied with the academic support provided by her supervisor. Aj Dhirayu supplied major research articles necessary for the proposal writing to Wan. Wan commented: "He directed me where to go. I didn't have as difficult a time in designing the lab experiments as my friends did. What I needed to do was to read the literature and prepare to write up my proposal" (Wan, First interview). Wan finished her proposal around the middle of her second academic year, which was considered to be expeditious when

compared to other students in the same programme. Although Wan could start running lab experiments before other students, she was unfortunate in that some lab instruments were broken before she could confirm the lab results. This resulted in Wan having to wait for a couple of months for the replacement of the instruments. During that time, Aj Dhirayu recommended that Wan should start to write the first two chapters of her dissertation that were not dependent on the lab experiments and results.

With the realisation of the limitations of her English, Wan initially planned to write her dissertation in Thai in order to avoid language problems. This was one of the main reasons why she was only concerned about her English reading skills necessary for understanding the literature in her field when she was completing the coursework. However, when Wan had been running the lab experiments for a couple of months, she found that many of her course colleagues were planning to write their dissertations in English. From discussions with her friends, Wan was worried that writing a dissertation in Thai may disadvantage her after graduation when seeking admission to another institution, or applying for funding for further studies, in that preference may be given by selection committees to those students who presented their dissertations in English. As a result, she considered writing her dissertation in English.

Aj Dhirayu realised that like other students he had previously supervised, Wan would face certain challenges in writing her dissertation in English. However, he said he did not provide Wan with any particular writing preparation. As he articulated: "I suggested all of my students take any English courses to prepare themselves for dissertation writing. It's because I could not afford my time to teach them English. I also think it's their own responsibility to learn how to write, not mine" (Aj Dhirayu, Interview).

4.5 Chapter Summary

This chapter has provided the contextual backgrounds of the study placing emphasis on the three master's programmes that the research participants were involved in. It has also discussed how the primary research participants and the secondary research participants had been paired in order to form five cases. The chapter has also introduced the profiles of the five student-supervisor cases by focusing on their relevant personal and academic backgrounds as well as their engagement in different types of disciplinary practices. This chapter, therefore, serves as a crucial backdrop to help readers gain an understanding of, and insight into the concerns of the focal participants' writing experiences.

CHAPTER 5

THE STUDENTS' REASONS FOR WRITING THEIR DISSERTATIONS IN ENGLISH AND THEIR LINGUISTIC PREPARATION

5.1 Introduction

This chapter reports on the first part of the research findings, placing emphasis on the students' reasons behind their preference for writing their dissertations in English. The chapter also explores how the students linguistically prepared themselves to meet the perceived demands of writing their dissertations at later stages. The findings presented in this chapter are primarily drawn from the data derived from the semi-structured interviews and collaborative conversations with the students. This chapter refrains from discussing the findings in relation to the existing literature on academic literacy and writing practices, and the institutional context. Discussions of the findings will be left for Chapter 7.

5.2 The Students' Reasons for Writing Their Dissertations in English

Of the three academic programmes that the five student participants were drawn from, the master's programme in petrochemistry and polymer science required all of its students to write their dissertations in English only. However, the master's programmes in physics and in biochemistry allowed the students to choose either English or Thai in writing their dissertations. Pat and Anne, who were on the petrochemistry and polymer science programme, had been informed at the time of their application for admission to the programme that writing a dissertation in English was a graduation requirement. Joy and Wan, who were on a master's programme in physics, and Ken, who was on a master's programme in biochemistry, chose English as the language for their dissertation writing when they reached certain stages of their studies.

Pat and Anne expressed the view that writing the dissertation in English as a programme's graduation requirement was one of the factors that attracted them to join the programme. Ken had made a decision to write his dissertation in English from the beginning of his graduate studies. Joy had hesitated over whether she should opt for Thai or English. When

she was working on her research proposal, Joy made a final decision, with her supervisor's encouragement, to write her dissertation in English. Wan initially planned to write her dissertation in Thai due to her awareness of the higher linguistic demands of writing the dissertation in English. When she was halfway through the process of running lab experiments, she changed her mind to write her dissertation in English. As can be seen from the students' perceptions of their own English proficiency, as presented in Chapter 4, none of them seemed to be particularly confident in their English, especially in terms of writing ability. Neither did they receive any formal training or instruction in dissertation writing in English. It is, therefore, crucial to first unfold the reasons behind their preference for writing their dissertations in English. The following sub-sections present two major factors, as reported by these students, which directed them to choose English for writing their dissertations.

5.2.1 Forming one's academic identity

The students reported that choosing to write their dissertations in English helped shape 'who they were' on their programmes and in their faculty. For Anne, Joy and Wan, their perceptions of dissertation writing had gradually changed prior to arriving at their dissertation writing-up stage. They first appeared to view dissertation writing as merely an activity to produce a research-based report as part of the graduation requirement. Anne noted: "When I first came to this programme, I brought with me the idea that a dissertation was what I needed to do in order to get through the programme. Then, I could get a job with the degree I obtained" (Anne, First interview). Joy and Wan articulated that they initially hesitated over whether they should write their dissertations in Thai or English. Early on in her programme, Joy preferred to write her dissertation in Thai: "When choices were given, I chose the one that seemed easier. Ultimately, I would gain the same degree as those who wrote in English" (Joy, First interview). For Wan, she did not want to struggle with writing demands due to her limited English. She remarked: "I thought my academic success was determined by my scientific knowledge. Rather than spending an enormous amount of time dealing with language problems, I wanted to save it for my lab research" (Wan, First interview). However, as time advanced, these three students found their perceptions of dissertation writing began to shift. In addition to viewing dissertation writing as a mere graduation requirement for their degrees, they came to regard it as a process that helped define their preferred academic identity.

Anne, Joy and Wan learned that the majority of master's students in their faculty chose to write their dissertations in English. Although there was no report on the exact number of

dissertations completed in English each year, they noted that they learned about it from their course tutors, and they could also calculate an estimate from browsing the library catalogue. From these three students' perspectives, it appeared that science students seemed to relate one's English proficiency to one's overall academic performance. Those who chose to write their dissertations in Thai seemed to show "one aspect of their academic weaknesses and admit it. That is, their English was no good" (Anne, First interview). The three students reiterated that they wanted to see themselves as students with high academic performance, or at least with a level of performance comparable to that of their peers, in order to boost their confidence in presenting themselves knowledgeably when they were studying on their programmes. In this regard, they believed that they needed to be proficient in English in addition to mastering their scientific knowledge. For Joy, the choices of languages for writing her dissertation clearly resonated with how she perceived herself: "I didn't want to see myself as someone who could only do science but couldn't handle English. I'd feel academically inferior to other course colleagues" (Joy, First interview). Wan put it very simply: "For some reason, we live on our self-esteem. We sometimes choose to burden ourselves, like I chose to write the dissertation in English, to prove that I also have the academic potential to do as others do" (Wan, First interview).

As can be seen, the perceptions of Anne, Joy and Wan about dissertation writing had shifted from those simply related to fulfilling a graduate requirement to the ones associated with the process of defining their academic performance or identity. By contrast, Pat and Ken both seemed to have held the latter perspectives since their initial entry to the programmes. Pat said:

> "I remembered that when my undergraduate tutor told me about this programme [the programme in petrochemistry and polymer science] and mentioned that it required the students to write dissertations in English, I made a decision to apply to study without hesitation. I felt it was challenging. I joined the programme with the belief that writing my dissertation in English would make me feel that I had stepped up to another academic level. I wanted to give it a try." (Pat, First interview)

Ken shared a very similar view to that held by Pat. He believed that using English to write his dissertation would be a means to help him perceive his own academic performance in a more positive way. He reported that his impetus for writing the dissertation in English was greatly influenced by his unsuccessful experiences as an undergraduate student when he received very poor English grades, and as a research assistant when he could not write a

field report in English on his own. Although Ken received a very successful academic record for all of his science subjects for his first degree, he felt that it was not enough to make him feel academically confident. Later, when he became a graduate student, he felt that he needed to build his academic confidence by possessing better English. Ken stated:

> "All postgraduate students need good English to be successful in their studies. As you can see, my English background is not good. This always makes me feel bad. I can't consider myself as a good science student… When I decided to continue my master's degree, I aimed to write my dissertation in English. It may help me improve my English, I believe… And it could help me redeem my confidence about my academic performance while I am completing my degree." (Ken, First interview)

The perceptions of the five students presented so far have shown how they 'perceived themselves' in relation to their own academic performance when they remained on their respective programmes of studies. In addition to this, Joy and Wan revealed another reason behind their decisions in choosing English for writing their dissertations, which was associated with how they wanted 'others to perceive them'. Joy gave certain examples of situations in which she believed the language used for writing the dissertation may possibly be utilised, in part, for judging one's academic performance. One example was concerned with the uninformed criteria employed by the committee during the oral defence of the dissertation. Joy stated that she was concerned about whether the dissertation committee would consider the dissertation written in English to be of higher quality than the one completed in Thai. She was also unsure if the oral defence of the dissertation would be evaluated on the basis of work presented in her dissertation, or whether it also included the evaluation of her overall academic performance. Joy articulated:

> "I chose to write in English for fear that using Thai would lead the dissertation committee to think that my performance was lower than those who wrote their dissertations in English. Or, they may think that I didn't put any effort into trying to write in English. To play safe, I chose to write it in English. I didn't want the language issue to affect how I may be judged academically." (Joy, First interview)

For Wan, her decision seemed to be a response to peer pressure. Before deciding what language to use for her dissertation writing, Wan discussed the matter with her friends in the same year and some senior students on the same programme. She found that almost all had chosen to write their dissertations in English. Wan was worried that she would be regarded

as "someone who could not do what my other friends could do, someone who would be left out, or someone who would be seen to be academically inferior to others" (Wan, First interview). Wan perceived that being able to write a dissertation in English, like the majority of the students, would result in her being recognised by her peers in terms of academic performance. As she explained: "When you're part of a group of people, you want to be accepted by other members. You don't want to be seen as different, especially in an inferior way. Otherwise, when you say something, no one listens to you" (Wan, First interview).

To recapitulate, the students' preference for writing their dissertations in English was closely connected to how they wanted to position themselves in their programmes of studies. All the students wanted to perceive themselves as efficient graduate students who were confident and could present themselves intellectually and pragmatically to others. Joy and Wan, in particular, further wanted to be recognised by other members on their programmes as students with sound academic performance. Joy was uncertain whether her academic performance would be fairly judged by the dissertation committee if she wrote her dissertation in Thai. For Wan, she was afraid that she would be perceived by other peers as inferior to them in terms of her overall academic performance. Therefore, it seems reasonable to say that the students' preference for choosing to write their dissertations in English was related to how they wanted to shape their preferred academic identity in their academic settings.

5.2.2 Planning for academic and professional prospects

The students perceived that writing their dissertations in English was an effective way of helping them achieve their future academic and career goals. From the first interview session with each of the students, they all exhibited a rather clear sense of direction in their further studies and career paths. Anne was the only one who had planned to work in the petrochemical industry immediately after completing her master's degree; the four others were determined to continue their doctoral studies. The students reported that they preferred to write their dissertations in English because they expected that they could master their English during the process of dissertation writing. They considered that being proficient in English could pave the way for their academic success and, in part, guarantee employment after their graduation. Ken, for example, reflected on how he perceived the importance of English through his experience of being employed as a research assistant and later taking the ELP test as a requirement for his graduate studies:

"I have realised how important English is, since I worked as a research assistant before doing my master's degree. I could not write the field reports in English, which was one of my main job responsibilities. Fortunately, I didn't get sacked because someone helped me to write them. Nevertheless, I struggled with trying to pass the ELP test in order to be accepted on this programme. As you can see, it's English that played, and still continues to play, an important role in my life." (Ken, First interview)

The students expected that they could improve their English, particularly their writing skills, by learning how to write from their dissertation supervisors. Like the other four students, Anne pointed out that when a given programme required or encouraged students to write their dissertations in English, it meant that "the dissertation supervisor must have the capability to teach and help the student how to write good English" (Anne, First interview). With this belief, the students assumed that their programmes and supervisors would provide them with full support to help them with their English during the writing-up stage. The students also expected that the supervision process would offer them ample opportunities to discuss their language-related problems with their supervisors on a one-to-one basis. Their supervisors were expected to be "language tutors and helpers who could afford to spend more time assisting their students in dealing with language than English teachers could do" (Wan, First interview). Wan, referring to her English learning experience, said: "In my previous English classes, there were about thirty students in each class. With a large class size and time constraints, the teacher could not really figure out what sorts of problems I had and what help I needed" (Wan, First interview). Wan, therefore, expected that when she was writing her dissertation, her supervisor could be more attentive to her language needs because she believed that the nature of dissertation supervision would allow her to have sufficient opportunities for individual tutorials with her supervisor. In the same vein, Joy also expressed her belief of how she could benefit from her supervisor in learning English during the writing-up stage:

"When I decided to write my dissertation in English, I believed that I could learn how to write from my supervisor. I could learn from his language feedback on my drafts. I could ask him for help with grammar and vocabulary when I got stuck, for example… In the English class, I couldn't ask so many questions. If I did, others would consider that I dominated the class." (Joy, First interview)

The students also believed that, by writing their dissertations in English, they could gain a necessary credential to 'impress the gatekeeper' of a given community into which they sought entry after graduation. These five graduate students realised that possessing sound English knowledge would be advantageous to them when they applied for a job or doctoral studies in the future. Anne was well aware that it was very competitive to get a good job in Thailand if recruitment criteria placed preference on those with a higher English proficiency. As Anne observed, there were a lot of Thai science graduates who received degrees from Anglophone countries. She expressed her concern over this situation:

"Since my first year, I had been very confident about what I learnt on my programme. But I thought those who studied in English must definitely have better English skills than me. To compensate for this, I thought I could use my dissertation to show that I could also use English, although the dissertation would show only evidence of my writing skill. This may increase my chance of getting a job. My prospective employer may be impressed by my dissertation in English." (Anne, First interview)

While Anne seemed to be concerned about job opportunities after graduation, the other four students gave priority to preparation for their doctoral studies. Pat was a very determined student who had planned to achieve her doctorate since she was an undergraduate student. Pat said: "Before starting to write my dissertation, I believed that the completed dissertation could serve as vital and tangible evidence of my English performance. Others could see that I could write in English. The dissertation was proof of this" (Pat, First interview). She believed that her English performance, as reflected by her dissertation, could help her to 'impress the gatekeeper' or the programme's committees who were responsible for selecting new candidates to a doctoral programme that she wanted to join. She further explained that doctoral students needed to write a thesis which may be three to four times longer than a master's dissertation. Therefore, she believed that the committee must want to ensure that the candidate had some experiences of writing a dissertation in English. Otherwise, "…the burden would be left on the supervisor to train the student to write from scratch" (Pat, First interview).

Joy, Ken and Wan also held the same viewpoint as Pat in that the dissertation could be used as a good and supportive proof of their English proficiency, especially their academic writing ability. This would, they believed, give them the advantage when they applied for admission to doctoral studies. Joy, for example, recounted that she was at first uncertain as

to whether she should write her dissertation in Thai or in English. Later, she decided to write it in English:

> "My supervisor suggested that I should do so. He said I should 'plan well and think big'; I may want to do my PhD abroad one day. He said a dissertation in English would help convince the prospective supervisor of my English writing ability. All supervisors wanted to make sure that international students could write adequately in English before they accepted them." (Joy, First interview)

Joy also further explained the benefits of writing the dissertation in English that her supervisor had told her. In particular, Joy noted that her supervisor emphasised that if she went to an English-medium university, she would not experience many difficulties in writing assignments and a doctoral thesis because she had "some experiences in academic writing, especially scientific writing. This could be applied to such writing tasks" (Joy, First interview). Ken, who was very concerned about his limited English, said that he was not sure whether he could achieve a good score should he be required to take any English test as part of his doctoral study application in a Thai university. He thought that if he could not meet the language requirements set by the doctoral programme, he could use his dissertation in English to show to the programme's committee that he had the potential to write scientific English necessary for his doctoral studies. Wan, who initially did not want to take a risk by writing her dissertation in English, changed her mind when she had run lab experiments for one term. She recounted:

> "One senior student told me that if I aimed to continue my PhD, I should write my dissertation in English. It would help me when I applied for research funding. He said the committee preferred those who were familiar with academic writing in English because the applicants were required to publish at least two papers in English if they were to be granted the funding." (Wan, First interview)

Simply put, prior to writing their dissertations, the students perceived that writing their dissertations in English could best serve as a springboard to help them enhance their English knowledge. They expected that they could improve their English in general and learn how to write superior, quality English in particular from their paired supervisors through the process of dissertation writing and supervision. Anne, who planned to work immediately after finishing her master's degree, believed that her dissertation could be used to help inform a prospective employer about her command of English. This would increase her

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chances of being a successful candidate for vacancies in her field of interest. However, Pat, Ken, Joy and Wan were all determined to pursue their doctorates after completing their master's degrees. These students expected that writing their dissertations in English would be advantageous to them in that preference may be given by the selection committee to those who wrote dissertations in English, when they applied for doctoral studies or research funding as part of their studies.

5.3 The Students' Linguistic Preparation for Dissertation Writing

The student participants brought to their graduate studies a variation in learning and personal histories. However, one of the similarities among them was that none of them had taken any writing courses specifically geared towards academic or dissertation writing. All of them also reported that they perceived a high demand from the linguistic aspect of dissertation writing and felt it imperative to enhance their writing skills. Even Joy, who seemed to have the highest English proficiency on the basis of the University's English Language Proficiency (ELP) test score, expressed concern over her academic writing skills. Studying in the linguistically less advantageous context of a Thai-medium university, the students felt that they were underprepared to cope with the potential linguistic challenges of dissertation writing for two major reasons. First, the educational curricula and settings did not encourage them to practise and then improve their English. As Joy explained it:

> "I don't have much opportunity to use English here. All lectures are delivered in Thai; we also write our assignments in Thai. We may read the literature in our field extensively in English, but that does not adequately help us to learn to write in English." (Joy, First interview)

The second reason why the students perceived that they were linguistically underprepared for dissertation writing was that they had not learned how to produce extended pieces of academic writing. They reported that the English courses they had taken at the undergraduate level mostly dealt with short paragraph writing. Anne mentioned that, in her EAP (English for Academic Purposes) class, she had one group assignment of writing a report of approximately seven pages in length. Unfortunately, the tutor assigned the students to do it a few weeks before the end of the academic term. According to Anne, "We wrote the report, sent it to the tutor, and that's it… no feedback, or any comment… only the scores that we had gained. So we didn't really know whether what we wrote was good or not" (Anne, First interview). Anne said that she did not learn anything from that assignment, which seemed to be the only assignment aimed at teaching her how to write an extended piece of writing.

A lack of effective training in academic writing, compounded by an awareness of their limited English proficiency, seemed to profoundly impinge on the efforts the students placed on fostering their linguistic knowledge and writing experiences. The following sub-sections present two main approaches that the students used to prepare themselves to cope with the linguistic demands of dissertation writing before they arrived at the dissertation writing-up stage.

5.3.1 Taking additional English language classes

Due to their lack of training in academic writing, the students seemed to be more inclined to look to formal learning for mastery of their writing skills. All of them mentioned that they had planned to take academic writing courses, particularly the ones offered by the ELTU. This showed that they viewed language courses as key accessible resources for their linguistic preparation. Unfortunately, the ELTU did not provide any academic writing courses to graduate students. Like the other four students, Joy was very disappointed and wondered "how I could learn to write if the university did not even provide this basic academic support to its students" (Joy, First interview). Once the students learned that there was no such course available, they seemed to shift their attention to other available courses considered to be useful for enhancing their English. Pat, Joy and Wan still aimed to attend courses offered by the ELTU, while Anne and Ken looked for English courses from private language schools.

Pat attended the English Grammar course when she was in the first term of her first academic year. Although she found that she did not really have an opportunity to learn how to write beyond sentence level in this course, she was very satisfied with it. Pat believed that the course, which focused on working on a variety of grammar exercises, helped brush up her knowledge of English grammar. This would help her monitor grammatical errors in her writing on other occasions. When Pat embarked on her second term, she took the Graduate English I course. She found that the course focused on reading comprehension practices. Pat said, "The course was generally fine. I could improve my reading skills, which was useful for handling the literature in my field. Yet it seemed to do nothing to help with my writing ability. The tutor did not touch on academic writing as I had expected" (Pat, First interview). After completing the Graduate English I course, Pat attended another grammar course in a private language school at the weekend. She was afraid that the language courses offered by the ELTU could not adequately equip her to meet the perceived demands of dissertation writing.

Joy and Wan also enrolled on English courses offered by the ELTU, but they seemed to have a rather negative attitude towards them. While preparing to do her lab experiments in her second year, Joy attended the Skills for Graduate Studies course. When Joy attended the class in the first week, she was satisfied with it because the content also covered some writing skills, although the main focus of the course was placed on reading skills. However, when she attended the class for a further three weeks, she observed that the course seemed to foster social science students. Joy recounted that the students in the class were required to write one short paper of about ten pages in length after taking the class for five weeks. Joy wrote a report based upon a review of the literature in her field and used the American Institute of Physics (AIP) referencing system[1] for citations. When the tutor returned the paper to her, Joy was dissatisfied with the feedback because the course tutor wanted her to change the use of citations in the paper by following the American Psychological Association (APA) referencing system[2] that he taught. Joy did not agree with him and did not see the importance of conforming to the APA style because, in her programme, the AIP system was used for writing academic papers and dissertations. Joy said: "He [the course tutor] didn't really understand what I wanted to learn. He seemed to know only writing in social science and the APA referencing style, and wanted me to write according to what he taught. But we didn't write like that in our programme" (Joy, First interview). Joy stated that the course should cater for those who wanted to learn English for use in the science disciplines too. She also felt that the tutor did not really know what individual students wanted to learn, especially science students in the class. As a result, she felt that she "was indirectly forced to study something irrelevant to my actual academic needs" (Joy, First interview).

Wan was another student who attended the class at the ELTU. She attended the English for Science Graduates course, which aimed to develop all four language skills necessary for science graduate students. Unlike Joy, Wan was very impressed by the tutor: "She was very well-prepared and what she taught was very useful" (Wan, First interview). However, Wan later found that she could not keep pace with the class and could not participate in some class activities: "I was so embarrassed when others actively participated in group discussions but I kept quiet" (Wan, First interview). Wan felt that her classmates, who were

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[1] This referencing system is also known as a citation-sequence system, where references are numbered in the text and in the reference list (American Institute of Physics, 1990).

[2] This referencing system is also known as a name-year system, where in-text citations include the author's name and year of publication in parentheses. The reference list is arranged alphabetically by the name of the first author and the year of publication (American Psychological Association, 1994).

both master's degree and doctoral students, had a much higher language proficiency than her. She commented: "The course was too demanding, and my classmates were very good at English. I felt too stressed to study with them, because I was a slow language learner. So, I decided to drop out after attending the course after only four weeks" (Wan, First interview).

While the other three students took classes at the ELTU, Anne and Ken chose to attend classes in private language schools. Both found it difficult to attend classes at the ELTU during their first two years on the programmes. Anne had to undertake extensive lab experiments during the morning and afternoon hours and also worked as a lab teaching assistant, which coincided with the courses at the ELTU. Therefore, she opted for enrolling on an English grammar course in a private language school where she could attend the evening or weekend classes. Ken also had a problem with his tight schedule, especially when he needed to do field work and be away from the university. As he put it: "I could not attend the class at the ELTU because I was required to attend the class on a regular basis. But I needed to go to different provinces to collect samples of honeybees for my study. I could be away for a couple of weeks each month" (Ken, First interview).

Since Ken could not attend any courses offered by the ELTU, he opted to attend the TOEFL Preparation course in a private language school when he was in his first year. He gave two reasons for this. Firstly, he could not pass the ELP test, so he wanted to prepare to re-sit the exam and thought that the TOEFL Preparation course would be helpful. Secondly, he believed the course could also help him to learn to write because one part of the course dealt specifically with writing. However, Ken dropped out halfway through the course, feeling that the course was for advanced learners of English who needed to attain a good score for the TOEFL exam. He found that: "I did not have enough English knowledge to follow the class. It was too difficult. I was just wasting my time sitting in the class and listening to the tutor because I rarely understood" (Ken, First interview). With suggestions from the course tutor, Ken changed to another grammar class in the following term, hoping to build a firm foundation for his English knowledge. As he said: "The tutor suggested that I attend a basic grammar course first. When I wrote him an essay, it seemed that every sentence was incorrect. The writing part for the TOEFL was for those who had a high language proficiency already, not for someone like me" (Ken, First interview).

Anne and Ken reported that they at first had also aimed to take academic writing courses in private language schools. Nevertheless, they could not identify with any of the schools they visited. Anne, for example, observed that most of them tended to offer business-themed courses that were in high demand by early-career business people who aimed to improve

their English proficiency for job promotion. This group of business people, Anne speculated, formed the majority of clients in language schools. Therefore, she believed that language schools seemed to prioritise business-themed language courses to meet the needs of this particular group. In terms of academic English, Anne and Ken found that there were only two major types of courses: grammar and exam preparation for IELTS, TOEFL and TOEIC tests. Ken said: "Unfortunately, at the time, I could not find academic writing classes. I think that very few students wanted to study writing, so they didn't offer any. Thai students seemed to prefer grammar and exam preparation courses. No demand, no supply" (Ken, First interview).

As can be seen, all the students aimed to improve their English, particularly academic writing skills, as preparation for their dissertation writing. Although all of them reported that they wanted to take academic writing courses, none of them could access such courses. They found that the ELTU, whose major responsibility it was to offer English language courses to students across the university, did not provide any tailored courses with an emphasis on academic or dissertation writing. Therefore, they resorted to any available English courses on offer that they considered most potentially useful in response to their writing needs. Even though all students expressed their preference for taking language courses at the ELTU, some of them could not make it because the ELTU's course timetable and that of their studies and research at their faculty clashed. To draw up a clash-free timetable, they opted for attending language courses in private language schools during the evenings or at weekends.

5.3.2 Accessing other institutional language support and resources

One of the interesting findings was that, although these participating students were eager to improve their English, not all of them recognised the availability of other kinds of language support provided by the sub-units of the ELTU at the time. There were two sub-units of the ELTU: the Writing Centre (WC) and the Self-Access Language Learning Centre (SALLC). The WC provided different kinds of short tutorial sessions to students on a one-to-one or small group basis. This ranged from tutorials focusing on grammar and mechanics to those emphasising larger discourse levels, such as paragraph development and academic paper structuring. The WC also offered writing consultations where writing tutors gave feedback, but not language editing, on students' drafts. Wan and Pat, who did not spend their undergraduate years at this university, did not know about such tutorial sessions. Wan commented: "If you do not do your undergraduate studies here, you will know nothing about the support provided by the university. It seems your life as a graduate student here is

restricted to your faculty only" (Wan, First interview). In line with Wan, Pat also observed that almost all of the university's academic support mechanism, like the ones provided by the ELTU, was aimed primarily at undergraduate students. Services like those from the WC were not widely publicised to graduate students. Pat registered her disappointment: "Those who knew about the services were those who completed their undergraduate studies at this university. The newcomers as graduate students seemed to be forgotten" (Pat, First interview).

While Wan and Pat reported that they had not heard about the services provided by the WC, Anne, Ken and Joy - who had all completed their undergraduate studies at Central Bangkok University - were well aware of the services. Surprisingly, Joy was the only one who made full use of them. Joy attended several small group tutorials whenever she could spare the time. She particularly appreciated the one-to-one writing consultation sessions with one writing tutor, to whom she used to bring a conference paper for comments. She remarked:

> "The tutor could not comment on the content as she was not a scientist. But she pointed out my writing weaknesses: what grammatical mistakes I made, the overall organisation, etc. Especially, she gave me suggestions on what I needed to learn more about and what resources I could get to learn how to fix my language problems." (Joy, First interview)

Joy expressed how thankful she was to receive linguistic assistance from the writing tutor from the WC. She said that, after the tutorial session, the tutor usually introduced some grammar or academic writing books to her. This kind of help, she perceived, was more useful than the fact that the tutor only corrected her writing: "I think this is the way I can be more autonomous in learning and eventually learn how to point out and fix my writing problems on my own" (Joy, First interview). Joy further expressed her opinion that other students may not be satisfied with the WC's services due to the limited proofreading and editing help given by the writing tutor. In contrast, she personally valued the services as useful in helping to improve her writing ability in the long term. Unfortunately, she found that the WC had closed down in the following academic year due to the shortage of staff members and some changes in the administration policy.

Anne and Ken, who were also aware of the tutorial sessions held by the WC, reported that they could not make full use of them because they found it difficult to draw up a clash-free timetable. For example, Anne reported that she was also interested in those tutorial sessions, and so were many of her course colleagues. Unfortunately, when the sessions were on offer,

they may need to attend some workshops occasionally held by their department. Anne noted that the department often informed the students only a few days in advance before the workshop, or of any other special academic activity. Therefore, "…if the workshop timetable clashed with the writing tutorial, we needed to cancel the tutorial as usually all students were expected to attend this kind of academic activity organised by the department" (Anne, First interview). Very often, Anne could not leave the labs for the language sessions, although she had previously arranged a meeting with the writing tutor. Mostly, it was because: "I was waiting for important lab results on that day, so if I left the lab, I may have to run new experiments" (Anne, First interview).

Ken also commented on the issue of timing. Since most of the tutorial sessions were organised on a one-to-one or small group basis, the students were required to reserve a place for the session that they wanted to attend. He found that the number of the sessions was very limited, but they attracted many students, especially undergraduates. Ken recounted his experience of reserving a place for the tutorial:

> "When I wanted to make an arrangement for a one-to-one tutorial, I needed to put my name on a waiting list because there were so many students who also needed the same help as me. I had to wait for many days or maybe a week to be informed what session I could have after the tutors had finished arranging the timetable." (Ken, First interview)

The problem for Ken in using the service from the WC was that, when he was informed about the time for the session, it often clashed with his lab timetable. He said he tried to book the session for several occasions, but he could not draw up a clash-free timetable for the writing tutorial session and his lab plan which he had to follow strictly. As can be seen, both Ken and Anne wanted to attend writing tutorial sessions organised by the WC. Unfortunately, due to their busy schedules and the limited number of the sessions available, it was difficult for them to attend those sessions. Joy was the only one, as mentioned above, who could set aside her time for writing tutorial sessions.

In addition to receiving the services from the WC, Joy was also the only student who made use of resources available in the SALLC. This was due to her attendance at several one-to-one writing consultation sessions where she was recommended by the writing tutor to look for resources to improve her writing skills. Joy recounted that, when she was an undergraduate student, she was required to do some language tasks in the SALLC as a requirement for the compulsory foundation English courses. At the time, she did not find it very useful: "I only completed the tasks as required without any clear idea of how those

tasks could really help me develop my English. I don't think I learned anything from them at all at the time" (Joy, First interview). However, her attitude changed when she went to the SALLC to work on language exercises and consult some books suggested by the tutor form the WC. Joy said: "I knew that I could learn a lot from the SALLC when the writing tutor guided me on what I could do with those materials. If I had a problem with paraphrasing, I knew which book I should grab" (Joy, First interview). By contrast, the other four student participants reported that they did not see how they could benefit from the SALLC. They shared the same reason, in that they were uncertain as to how the available resources could work for them without clear guidance from a language tutor. Ken explained in detail:

> "When I went to the SALLC, I was overwhelmed by a lot of books and other types of language learning materials. They were useful for improving our language, I was sure. But, which book should I get? What exercises should I do first? If I had problems in working on those exercises, who could help me? I don't think we can improve our English just by reading or doing language exercises on our own." (Ken, First interview)

These four students' beliefs about the usefulness of the SALLC seemed to be in line with Joy's when she was a user of the SALLC in her undergraduate years. They seemed to perceive that working on available resources in the SALLC without formal support from language teachers was not effective. This may help explain why, as reported earlier, these students seemed to prefer to take extra language classes where they could receive more directives and formal language assistance from language teachers.

This section has uncovered the ways in which the students prepared themselves to meet the perceived demands of dissertation writing in English and to improve their English in general. As presented, it appeared that the students could not find English courses, especially academic writing courses, that exactly corresponded to their needs in dissertation writing. Although the university provided, to a certain extent, language support and resources to all students on campus, there were certain factors that could hinder the students from making full use of them as a means to master their English. These included the university's lack of publicising the availability of the types of support and resources to graduate students, the students' tight schedules on their programmes of studies, and the students' own attitudes towards the effectiveness of using that support and those resources.

5.4 Chapter Summary

This chapter has reported on the factors that had formed the students' preference for writing their dissertations in English. The students anticipated that they would be able to enhance their English scientific writing in collaboration with their supervisors through the process of dissertation writing and supervision. They believed that writing dissertations in English would help them shape their academic identity as efficient postgraduate students. It could also help them gain the necessary academic and linguistic credentials in order to achieve their future academic and career goals. The students were, however, aware of their limited English proficiency and their lack of academic writing experiences. To prepare themselves to meet the perceived demands of writing their dissertations in English, the students put efforts into fostering their linguistic knowledge by attending English language classes and accessing other available resources of language support provided by the university. In Chapter 6, the students' dissertation writing practices will be explored in detail. Combined with the findings as reported in this chapter, the findings from Chapter 6, which were derived from the data obtained from both the students and their respective supervisors, will provide an insightful understanding of the students' negotiation with the demands of writing their dissertations in English in a Thai-medium university.

CHAPTER 6

AN EXPLORATION OF THE STUDENTS' DISSERTATION WRITING PRACTICES IN CONTEXT

6.1 Introduction

As presented in Chapter 5, the students' reasons behind their preference for writing their dissertations in English were associated with their academic identity formation and their academic and professional future prospects. The students also reported different practices that they had adopted in order to linguistically prepare themselves for meeting the perceived demands of writing their dissertations. This chapter explores in detail the students' engagement in different academic literacy practices as a way of preparing their dissertation drafts for submission. As with Chapter 5, this chapter refrains from discussing the findings with reference to the literature on academic writing and institutional contexts. Theoretical and pedagogical discussions of the findings will feature in Chapters 7 and 8.

6.2 Pre-Writing Preparation

This section explores how the students planned to write their dissertation drafts. As reported in Chapter 5, the students had not received any formal training in dissertation writing. Nor had they completed any extended pieces of academic writing in English prior to arriving at their dissertation writing-up stage. Due to their lack of adequate academic writing experiences, they developed different practices as initial preparation for writing their dissertations. They put efforts into understanding the dissertation genre expected by their academic programmes. They negotiated with all the information that they had collected. They also consulted a range of sample texts as models for writing chapter outlines. These practices were consciously developed as a means to facilitate the process of dissertation writing at later stages. The following sub-sections explore two sets of literacy practices that the students utilised in the initial process of their dissertation writing.

6.2.1 Developing the basic knowledge of the dissertation genre

This section reports on the literacy practices that the students used in order to develop the basic knowledge of the dissertation genre before they started to write their dissertation

drafts. Following Dong (1995) and Tardy (2004), I refer to "the basic knowledge of the dissertation genre" as the writer's awareness of the generic features of a dissertation in a given discipline. This includes, for example, choosing the overall structural organisation of dissertations, considering the structure and major content of individual chapters, and using writing conventions expected by a given academic community.

The students reported that it was fundamental to their preparation for dissertation writing to be able to conceptualise the generic features and readerships of dissertations in their disciplines. This awareness, compounded by their lack of writing experiences and training, led them to develop different practices. Firstly, the students consulted different sources in order to learn about the macro-structure of dissertations in their disciplines. Secondly, they identified their supervisors' preferences for specific writing conventions. Finally, they appealed to their peers and supervisors to clarify certain aspects of dissertation writing about which they were uncertain.

6.2.1.1 Learning the macro-structure of dissertations

Although none of the students were taught about the macro-structure of dissertations in their disciplines, they reported that they had had certain rudimentary ideas of it before embarking on the dissertation writing-up stage. The students attributed this to their consultation with the Graduate School Handbook and their accumulated exposures to dissertations in their disciplines via extensive reading.

Pat, Ken, and Joy reported that they had carefully consulted the Graduate School Handbook to ensure that they followed the rules stipulated by the Graduate School with particular reference to the components and overall organisation of dissertations/theses. It was found that in addition to providing general information about academic and administrative arrangements for postgraduate students, the Handbook devotes one part to guidelines for writing dissertations/theses. This set of guidelines includes information about major components of the thesis/dissertation, citing styles, writing precautions, and writing scientific names (see Appendix 6). However, Anne and Wan perceived that the Graduate School Handbook was not very useful. Anne noted: "I found that it provided too general guidelines which seemed to be applicable to all disciplines. I preferred more specific suggestions that could be directly used in writing a dissertation in my field" (Anne, First interview). Wan held the view that "I found it more practical to look to dissertations completed in my programme as model texts for paving the way to learn how to write this high-stakes piece of writing" (Wan, First interview).

Like Wan, the other four students also mentioned that they had learned about the components and structure of a master's dissertation through reading several other dissertations. Pat, for example, mentioned: "I needed to browse through many dissertations on similar topics as part of the literature review and identification of the research niche. Then, I gradually learned what the dissertation looked like and how I should write my own work" (Pat, First interview). Ken also asserted that he had looked to several dissertations completed on his programme, paying particular attention to the ones supervised by his supervisor:

> "When I was about to write, I was quite confused about the overall structure of the dissertation. In other programmes, the dissertations contained five chapters. In my programme, it was different. The number of chapters ranged from five to seven. I then went through the ones supervised by my supervisor. All had six chapters, so I decided to follow them." (Ken, First interview)

As can be seen, through reading and examining various dissertations, particularly the ones completed on their programmes, the students could glean a clearer idea of how they could structure their dissertations to meet the expectations of their academic community.

6.2.1.2 Identifying appropriate writing conventions

En route to enhancing their basic knowledge of the dissertation genre, the students were well aware that each academic programme had its own preferred writing practices. All students reiterated that being aware of the writing conventions expected by their own programmes would help them avoid a false start in their writing. Joy, for example, found that the Faculty of Science adopted different 'house styles' in dissertation writing, each of which depended on an individual programme of studies. She exemplified: "Different programmes prefer different ways of writing and formatting, such as graphic titling, referencing systems, numbering of section headings, and even line spacing and font size. So, I needed to familiarise myself with, and conform to, my programme's writing rules" (Joy, First interview).

The students considered that dissertations which had successfully passed the academic regimen could yield authoritative information with reference to the appropriate norms for writing their dissertations. They placed particular attention to critically examining completed dissertations supervised by their supervisors. On the basis of their careful examination of dissertations, they learned that even those completed on the same

programme could also possibly vary in terms of writing conventions. With this realisation, they reported that adherence to writing conventions that met their supervisors' expectations was of priority. Joy gave an example from what she observed: "For all dissertations supervised by my supervisor, Chapter 2 was entitled 'Theoretical Background'. Other dissertations on the programme simply used 'Literature Review'. I then chose Theoretical Background as the title for Chapter 2 in my dissertation, which may be what my supervisor preferred" (Joy, First interview). She also remarked: "Our supervisor is the first one to judge our work. We then cannot afford to fail to write in the ways she/he wants us to write" (Joy, First interview).

6.2.1.3 Appealing for further clarification

As inexperienced researchers and writers, the students perceived that consulting other members of their immediate academic community would help ascertain their understanding of the dissertation genre. Pat, for example, noted: "I had some ideas of the ways I should organise and write my dissertation from reading many dissertations. Yet, I also talked to others to make sure that my ideas were correct" (Pat, First interview). All students reported that discussing with their peers from the same programme helped them establish their confidence about the basic knowledge of the dissertation genre before they proceeded to further discuss it with their paired supervisors. Joy explained: "I shared my ideas with friends. I made sure that I knew something; for example, how many chapters I needed, what referencing system to use and how long each chapter should be before I sought further suggestions from my supervisor" (Joy, First interview). Like Joy, the other students agreed that sharing ideas with their peers from the same programme, particular with those who had already started writing their dissertations, could be very fruitful. For example, Ken found that talking to one senior student helped him clarify the referencing system to be used in his dissertation:

> "I found that the dissertations from other programmes used a numerical
> referencing system. However, when I went through several
> dissertations on my programme, I found that they all used an APA
> referencing system. What system to follow then? I discussed with a
> senior friend what system he used and if my observation about the use
> of referencing systems was correct. I later asked my supervisor for
> confirmation about this issue." (Ken, First interview)

The students emphasised that their supervisors could best serve as a source of expected genre knowledge. This was attributed to their awareness of the readership of their

dissertations, indicating that their supervisors counted most in preliminarily judging their works. Therefore, appealing for clarification from their supervisors would help affirm what their supervisors' expectations of writing were. For example, Anne stated that when there appeared to be variations in format and certain writing conventions in dissertations on her programme, "I did what my supervisor wanted me to do. When I followed him, I was sure that if there was something wrong, for example other committees didn't like it, my supervisor would help me defend why I wrote so" (Anne, First interview). Wan also asserted that, with her supervisor's expertise and supervision experiences, "He knew best in what ways I should write my dissertation to meet the expectations and requirements of our programme. Therefore, before I wrote, I discussed with him first" (Wan, First interview).

From the supervisors' perspectives, they were also aware that there was variation in writing practices between different programmes and different supervisors. They pointed out that, on the basis of their observations, the students had rather clear ideas of the dissertation genre from the outset of their writing-up stage. In line with the students' reports, the supervisors stated that the students accrued the knowledge of the dissertation genre primarily through examining dissertations previously completed on the programmes and discussing with their course colleagues. According to Aj Patcharee:

> "Most students, including Pat, could visualise their dissertations: how to structure and format them, what referencing system to use, or how to incorporate appropriate diagrams in each chapter. The more they read previous dissertations, the more they learned." (Aj Patcharee, Interview)

The supervisors also agreed that dissertations completed on their programmes could provide their students with precise writing guidelines. Aj Boonyarit noted that writing conventions within the same academic discipline may possibly vary: "Even on the MSc programme in physics here, to a certain extent dissertations may be presented in different ways and different writing styles. The differences may be due to the types of research methodology used, the supervisor's previous writing experience and preference and so on" (Aj Boonyarit, Interview). With this realisation, he believed that providing his students with model texts could be highly advantageous: "I gave Joy a couple of dissertations I had supervised. They could give Joy the most accessible and concrete writing models" (Aj Boonyarit, Interview). Aj Worapong was another supervisor who also found that recommending his students to attentively examine dissertations that he had supervised yielded satisfactory results. He explained: "I explicitly suggested that Anne consult Tim's dissertation, on which she built her research. It could help her see, for example, the overall structure of the dissertation, how

to use headings and subheadings, what to incorporate in chapters or leave to the appendix…" (Aj Worapong, Interview).

In summary, the supervisors observed that their students had adequate basic knowledge of the dissertation genre from the outset of the dissertation writing-up stage. They believed that the students had gleaned such knowledge from their exposure to, and explicit analysis of, dissertation models. All supervisors concluded that their students did not exhibit serious difficulties in familiarising themselves with the generic features and writing conventions of the dissertations on their programmes.

6.2.2 Selecting and managing information for writing

All of the students and supervisors shared a similar view that good dissertations in their disciplines were primarily characterised by scientific credibility. They described scientific credibility as primarily stemming from the writers' successful manipulation of trustworthy information in their writing. In order to ensure the scientific credibility of their dissertations, the students reported that they had placed emphasis on evaluating collected information before they started to write their first drafts. To write their dissertations, they would then cite literature-based information from authoritative sources and presented laboratory-based information with accuracy and clarity. These practices of evaluating information for writing were found to have primarily developed through the students' previous experiences in interacting with different members of their academic communities.

6.2.2.1 Evaluating literature-based information

The students collected literature-based information from three sources: journal articles, dissertations and theses, and textbooks. They reported that they had continuously reviewed the existing literature in order to catch up with the continuing progression of knowledge in their fields. Although the students collected a lot of source texts in order to keep up with the literature, they acknowledged that they had not read some sources thoroughly. Wan, for example, pointed out that when she found an interesting journal article, she usually read only its abstract in order to save time. She said: "If it was relevant to my study, I photocopied it. I did this to make sure that I would have enough references for my dissertation. Now, I have many photocopied papers that I haven't read beyond their abstracts" (Wan, First interview). Like the other four students, Ken expressed his concern about the overwhelming amount of the literature he had collected: "When I was about to write my first draft, I was shocked by a lot of reading sources I had accumulated. I spent

many days sorting them out and considering what sources I should include in my writing" (Ken, First interview).

Having obtained a large pool of literature-based information, the students reported that they were in favour of journal articles and were to use them as major sources of the literature in writing dissertations. They regarded journal articles as more authoritative sources of information than dissertations/theses and textbooks on two grounds. Firstly, a journal article was the most up-to-date source of knowledge on the subject. Anne pointed out: "There're a lot of journals and they publish new research studies on a regular basis. It's the most accessible and updated source of scientific knowledge. Our dissertations need to include as much updated information as possible" (Anne, First interview). Secondly, a journal article was more systematically and scholarly reviewed before it could be published. As Ken noted: "An article in a good journal is reviewed by several established scholars in the discipline. It is then accepted by a wider research community compared to a dissertation, which is pedagogically assessed at an institutional level" (Ken, First interview). None of the students chose to include textbooks as references in their dissertations. Rather, they referred to textbooks when they wanted some conceptual information as a background for understanding other complicated journal articles. As Wan explained: "Textbooks provide basic information or general theoretical frames for conducting research. I preferred updated research findings from advanced empirical studies when preparing references for my writing" (Wan, First interview).

Although the students expressed their preference for journal articles, they reported that they still needed to carefully select journal articles from their collection in terms of quality or credibility. One of the strategies employed was considering journal impact factors. Pat, Anne and Wan mentioned that they first learned about making use of impact factors from their seminar courses. Pat noted: "In a seminar course, the tutor suggested that we choose papers from journals with high impact factors for class presentations. She said the higher the impact factor, the higher the recognition of the journal" (Pat, First interview). Joy and Ken mentioned that their paired supervisors were the ones who raised their awareness of the significance of journal impact factors.

Joy noted:

> "When I was revising my research proposal, my supervisor told me that the easiest way for inexperienced researchers to judge if a given paper was good or not was to look at the IF [impact factor]. He wanted me to replace some references I included in my proposal with the ones with higher IFs.

This would, as he said, increase credibility of my research proposal." (Joy, First interview)

In addition to relying on journal impact factors, Pat and Anne reported that their judgement on the quality of the literature was based upon the journals that were often referred to by presenters in academic conferences that they had attended. As both of them attended several conferences, they were familiar with certain journal titles which were frequently referred to by presenters. Pat said: "I always jotted down the journal titles used as references by well-known speakers. I believed that those were good journals. They were experienced researchers, so they must use reliable sources" (Pat, First interview). Ken reported that when he was uncertain about the quality of particular journal articles, he asked doctoral students in his lab for a second opinion: "They were doctoral students who had been conducting research in my field for many years. Depending on their exposure to published articles, they could help me choose appropriate papers for my dissertation" (Ken, First interview).

The students reported that, from their observation, dissertations/theses were rarely cited by other researchers. Even Anne, who built her research on one dissertation, did not directly cite that dissertation. Rather, she cited a journal article that was based upon the same research project reported in the dissertation. Anne stated: "My supervisor used to tell me that if I wanted to refer to a dissertation, I should cite its published article version" (Anne, First interview). Anne further explained that, although the corresponding article version of the dissertation that she cited in her work was published in a regional journal with a rather low impact factor, she believed that it was more authoritative and accepted by readers compared to its original dissertation version. She attributed this to the fact that a journal article would have gone through the editorial peer review process, which was more academically rigorous than a dissertation defence process.

As can be seen, the students considered journal articles as more authoritative, according to journal impact factors and preferences given by more experienced members of a research community. Thus, they collected journal articles with such quality to serve as major sources for the literature for writing at later stages, in order to establish the scientific credibility of their dissertations. The students reported that they carefully sorted out these journals from other less important journals for convenient referencing. For example, Pat stated that she had filed these major source texts in one folder, numbering the first page of each article according to its potential use: "When I read each paper, I considered for which chapter it was useful. Then, I wrote the number on its first page. In doing so, I could find information I wanted with ease when I wanted references for a particular chapter" (Pat, First interview).

To summarise, in parallel to their research progress, the students gradually accumulated the literature perceived to be useful for their research projects and dissertation writing. This resulted in a tremendous amount of information after their laboratory experiments had been completed. The students were overwhelmed by the information they had collected and felt it imperative to strategically select the literature from more authoritative sources as preparation for their dissertation writing. Their aims were to facilitate the process of dissertation writing at the later stages and to ensure the scientific credibility of their completed dissertation.

6.2.2.2 Negotiating with laboratory-based information

The students' laboratory notebooks were major sources of recorded laboratory-based information. The students used laboratory notebooks to record all research-related activities. They wrote experiment protocols, which described in detail what materials and instruments were needed and how laboratory experiments were to be conducted in practice. They also kept detailed records of technical complications encountered while running actual laboratory experiments. It was equally important to accurately record all laboratory results. All students reported that they recorded information mainly in Thai in order to ensure accuracy in recording. Ken commented: "I wrote down everything about my lab experiments in my lab notebook. It needed to be detailed, clear and accurate. Therefore, Thai was my choice" (Ken, First interview). English had a role to play only when the students referred to technical terms such as materials, experiment techniques and technical problems because equivalent terms in Thai did not exist.

The students reported that en route to completing laboratory experiments, they also processed raw information from their recorded laboratory notebooks and transformed it into credible knowledge for a professional forum. Prior to finishing their laboratory work, on a few occasions the students attended academic conferences as presenters. Pat and Anne in particular were also encouraged to present their research progress to research group meetings that their supervisors held on a regular basis. The students reported that preparation for those presentations prompted them to begin to sort out, analyse and evaluate information they had collected. With reference to laboratory results in particular, they were usually analysed statistically and then tabulated. They could also be transformed into other precise and reader-friendly forms such as histograms, scatter plots and pie charts. Finally, the processed information was checked, usually with the students' paired supervisors or their peers, for its accuracy before it was used for assembling and constructing conference papers and presentation slides.

The students' production of conference papers and presentations was considered to be beneficial preparation for writing dissertations on three grounds. To begin with, the information as referred to in their conference papers and presentation slides had already been sorted, analysed and organised. This resulted in the students having manageable information ready that would facilitate the process of writing dissertations at later stages. For example, Ken explained that he did not have to deal with an overwhelming amount of raw information when he wanted to write the first draft. He further explained: "Lab results were analysed and then put in tables or transformed into graphs. Research methods used were also summarised and included in the paper. Then I could use them as ready-processed information for my dissertation writing" (Ken, First interview). Another benefit was that information that had been presented in conference papers and presentation slides was considered to be highly accurate. This was due to the fact that the information was verified by their supervisor during the analysis process, as Wan pointed out:

> "It's common in science education that when a graduate student writes a conference paper, the supervisor will co-author. As the supervisor's name also appears on the paper, the supervisor will help the student recheck data and even help write the paper for the student. This means that the information included in the paper must be very accurate. Otherwise, the supervisor will lose face if someone points out mistakes in the paper."
> (Wan, First interview)

The other students also shared a similar belief as Wan. Joy, for example, mentioned that preparing information for conference papers and presentation slides was a means to prompt her supervisor to help check the accuracy of her data processing. Joy said: "I didn't have to worry about there being something wrong about my data analysis. As my supervisor co-authored, he carefully helped check. This made me feel sure that the results of my data analysis were fine. Then, I had credible information for my dissertation writing" (Joy, First interview). Finally, the students found that when they presented their papers, feedback given by the audience was useful in raising their awareness of the strengths and weaknesses of their research-based information. Ken, in particular, appeared to have benefitted greatly from the audience's feedback, as he had presented many papers before completing his laboratory experiments. He stated: "In each presentation, I received constructive comments from the audience. Some commented that my data was not adequate; others suggested how I could improve my data to make them more reliable" (Ken, First interview). Ken, along with the other students, perceived that feedback given by conference participants helped them in reconsidering the strengths and adequacies of their research information. This turned out to

be useful in helping them revise their laboratory-based information to be used later as sources of information for writing dissertations.

Simply put, the findings revealed that when the students had received sufficient laboratory-based information, they began to process it and transformed it into written artefacts for conference presentations, and finally made presentations to the scientific communities. The students considered that the ways in which they had engaged in different literacy activities helped them to negotiate effectively with their laboratory-based information, deriving manageable and scientifically credible sources of information ready for writing their dissertations.

6.2.2.3 Rationalising the content of individual chapters

As reported in Sub-section 6.3.1a, the students put a great deal of effort into learning the macro-structure of the entire dissertation by examining completed dissertations by other students, and consulting their peers and supervisors. It should be noted that, at that stage, the students constructed only rudimentary mental outlines in order to conceptualise the overall structures and required components of the dissertations. However, they later prepared elaborate written outlines for individual chapters immediately prior to writing their first drafts. This was to ensure that the content of each chapter was logically and adequately presented.

The students reported that detailed outlines could assist them in keeping them on track when writing dissertations. Pat, for example, stated: "Due to the sheer volume of the dissertation, I could get lost very easily if I didn't have a clear outline of what to write" (Pat, First interview). Ken also mentioned that he prepared a detailed outline in order to have a concrete frame for guiding his writing: "It gave me a guideline to follow when I was writing. It helped me see if the content of my dissertation was adequately and coherently presented" (Ken, First interview).

Although all students expressed their concern about their English proficiency, they stated that they had written the outlines mostly in English from the start. All of them said that they were not worried about language errors at this stage because the emphasis was primarily placed on identifying the structural organisation and content of individual chapters. As Wan remarked: "I didn't care about the language. The outline was just my writing plan. I translated my thoughts into written outlines to guide and remind me of what and how I would write" (Wan, First interview). To prepare the outlines, the students relied on sample dissertations, paying particular attention to those supervised by their paired supervisors. This

was similar to the process in which they tried to conceptualise the macro-structures of the entire dissertations. Joy, for example, recounted that she first looked to several dissertations completed by students on her programme. She found that there were variations in how the students organised and incorporated information into their dissertations:

> "… for example, when I looked at those dissertations to see how the literature review was written, I found that some students put in a lot of theories although some were very basic. It was like they wanted to fill the pages. Others reviewed mainly empirical studies, mentioning mainly their lab results. It seemed that they had their own ways of choosing what information to include in their chapter." (Joy, First interview)

Joy then decided that she would follow the dissertations supervised by Aj Boonyarit, her supervisor: "I found that they included only major theories and recent empirical studies. They discussed how the experiments were conducted in very detail, not only presenting the lab results" (Joy, First interview). As she put it, "My dissertation would be primarily judged by my supervisor, so I should include what he wanted to see. The previous dissertations he supervised were the best source of information for me to learn about how to write to meet his expectations" (Joy, First interview). Other students were also aware of the expectations of their supervisors with reference to the content of their dissertations. Anne, for example, stated that she followed Tim's dissertation, on which her research was built, in order to "estimate the breadth and depth of information presented. As a result, I could plan how much information I should put into my own dissertation" (Anne, First interview).

The students reported that, after preparing the initial outlines of individual chapters, they also received suggestions from their peers and supervisors on improving the outlines. Pat, Anne, Joy and Ken mentioned that they received useful comments on their initial outlines from other friends. Pat paired up with her friend: "Our research was quite similar as we were both supervised by Aj Patcharee. After finishing writing each outline, we helped each other to comment on it" (Pat, First interview). Anne reported that she sought suggestions from Tim: "I looked at his dissertation and used it as a model. Once I finished the outline, I was fortunate in that Tim offered to help comment on it" (Anne, First interview). Joy asked a senior student on her programme to comment on her outline, while Ken approached two doctoral students in the same lab. These four students shared the same view in that they received constructive comments from their friends to improve their outlines before they proceeded to discuss them in detail with their supervisors.

Pat stated that Aj Patcharee was the one who suggested that she discuss the outline of each chapter with her first before starting to write the first draft: "We went through the outline together. Actually, she suggested quite a lot of changes each time. With her help, I had a clearer idea of what information should be included and how it could be organised more effectively in my draft" (Pat, First interview). For Ken and Joy, it was their own decision to approach their supervisors for feedback on the initial outlines. They believed that their supervisors always encouraged them to discuss any issues related to their academic work. Joy noted: "I believe all supervisors are very happy to offer any academic help to their students. We don't have to wait until they offer us. They sometimes don't do so because they think we don't have any problem. To me, I let him know whenever I needed help" (Joy, First interview). Ken stated that he could establish a very good rapport with his supervisor; therefore, he felt comfortable enough to approach her when he was uncertain about any aspects of his dissertation writing:

> "I was aware that my writing was very poor, so I might spend two to four hours, or maybe a day or two, trying to write only one paragraph. Having the outline accepted by my supervisor first meant that I'd not invest my time and energy in writing anything that was unnecessary." (Ken, First Interview)

By contrast, Anne did not have a formal meeting to discuss the written outline with her supervisor. However, she mentioned that she made several presentations to the research group's meetings based upon her research progress. She usually developed the presentation slides from her written chapter outlines. When she made presentations, she received comments on her presentations from her supervisor who chaired the sessions. Anne remarked: "The slides which also served as the outlines of my chapters were amended by my supervisor during my presentations. Additional meetings to discuss the outlines were then unnecessary" (Anne, First interview).

Wan was the only student who seemed to initially work solely on her own at this stage. She neither sought assistance from her friends nor consulted her supervisor when she prepared the outlines for the first two chapters. She perceived that, as individual students conducted research projects on different topics, it was difficult to obtain insightful comments from each other. Wan also felt that the relationship between her and her supervisor was very formal, resulting in her keeping her distance from him. As Wan pointed out: "I was not very close to my supervisor. As he didn't offer to help comment on my outline, I was not sure if I should go to see him. Perhaps he thought it was my own responsibility, in which case I should work

on it myself" (Wan, First interview). However, Wan mentioned that, after receiving feedback on the first drafts of the first two chapters she had written, her supervisor suggested that Wan give him the written outlines before she proceeded to write the drafts. The major reason was that: "My supervisor said the drafts were poorly organised. He then suggested that I give him the outlines first" (Wan, First interview). Wan reported that because her supervisor offered to help, she felt more comfortable about seeking feedback on other chapter outlines from him.

This section has reported on the five students' dissertation writing experiences in the Pre-Writing Preparation phase. The findings revealed that the students had developed several literacy practices in order to cope with the perceived demands for writing their dissertations in English. Since they were aware of their limited English proficiency, compounded by the lack of formal training in academic writing, they put their efforts into acquiring the knowledge of the dissertation genre. They also learned how to negotiate with the overwhelming information that they had gleaned from conducting year-long research projects. Their ultimate goal was to equip themselves with sufficient knowledge in order to write dissertations with scientific credibility. As this section primarily deals with the literacy practices that the students had developed as initial preparation for their dissertation writing, it places emphasis on the findings derived from the students' verbal reports. The following sections will present literacy practices utilised by the students in the Text-Writing and Revision phase, and the Final Preparation of the Dissertations phase. In these two consecutive phases, the students' literacy practices were more influenced by their interactions with their paired supervisors. Therefore, the major findings will be drawn from both the students' perspectives, augmented by their supervisors' perspectives. As with this section, the subsequent two sections will include extracts from the semi-structured interviews in order to optimally present the 'voice' of the research participants.

6.3 Text-Writing and Revision

When the students were writing their first drafts and working on between-draft revisions, they perceived that they had difficulties in choosing from appropriate lexical choices, in using a variety of expressions, and applying correct syntactic structures. These difficulties hindered them from expressing their ideas clearly and succinctly. In order for them to overcome these difficulties, the students employed several writing practices. While they were writing the first drafts of individual chapters, they strategically used source texts as their textual mentorship. They also relied on their L1 (Thai) writing and subsequent translation in order to facilitate their writing process. In order to improve their drafts at later

stages, the students revised them by primarily using language feedback and seeking writing assistance from their supervisors and peers. The following sub-sections report on different writing practices that the students employed while they were writing and revising their chapter drafts.

6.3.1 Reusing and learning from source texts

As reported in Section 6.3, the students compiled all presentation slides and conference papers that they had previously produced. They also collected relevant journal articles, dissertations and textbooks. The students perceived that these materials, which were all written in English, had served as useful sources for writing their dissertations on two grounds. Firstly, as the source texts were in English, they could borrow relevant content-bearing parts from the source texts to reuse in their own drafts with ease. Secondly, by consulting the source texts, they could develop a wide repertoire of language choices, particularly appropriate vocabulary choices and formulaic expressions, to express their ideas. It is worth noting that in order to avoid the historical and political implications of the term 'plagiarism', the following sub-sections will use the terms 'reuse' and 'borrow' (Flowerdew & Li, 2007) as neutral terms to refer to the students' use of any source texts. They may, or may not, appropriately cite and/or paraphrase the source texts when used in their writing. The term 'plagiarism' will be used only when it is mentioned by the research participants.

6.3.1.1 Borrowing a content-bearing block of text

All students reported having made full use of the conference papers they had previously produced, where appropriate, to fill in the outlines of individual chapters. They all agreed that integrating their own conference papers into their drafts was advantageous. Since the papers had been carefully edited by their paired supervisors before submission, they were confident that the content was correct and the use of language reached an acceptable standard. Pat, for example, said:

> "Although the papers were only about eight to nine pages, they were very useful. I integrated them into different parts of my dissertation. The content was fine and the language was good as my supervisor had carefully edited the papers for me. When they were used in particular parts of my dissertation, I was sure that those parts contained good content and good language." (Pat, Second interview)

Ken asserted that using his conference papers in his writing helped him save time and avoid language problems. Taking parts of the papers to reuse in his dissertation meant that he did not have to try to write certain parts from scratch. He pointed out: "I only needed to modify the papers slightly to suit my dissertation… no need to think about what grammar to use… no need to worry about word choices etc., because the language was previously well-edited by my supervisor" (Ken, Second interview).

The students mentioned that they had usually copied a block of text from their conference papers, which may range from one sentence to a few paragraphs, to reuse in their dissertations. All of them perceived that taking certain parts of their own work without having paraphrased them to form the dissertation drafts was not considered plagiarising. Anne stated: "Since they were my own papers, I used any parts of them in my dissertation without any paraphrasing" (Anne, Second interview). Similarly, Wan conceived that paraphrasing source texts was necessary only when they were taken from others' work: "We also need to paraphrase and cite other researchers' papers appropriately. But, when we are using our own work, I believe that it's fine to take some parts without any modification. No one can say that we steal others' ideas" (Wan, Second interview).

Apart from reusing their own conference papers in their dissertations, the students also scanned through other types of source texts for relevant pieces of content-bearing information. Joy explained: "The dissertation relies on not only the ideas or facts generated by its author but also other researchers' work. When writing the literature review, for example, I drew on several published journal articles" (Joy, Second interview). However, there were variations in the ways in which the students reused the text taken from the published source. Pat and Wan mentioned that when they had borrowed stretches of words or sentences from the literature, very often they had not properly paraphrased them. Pat explained: "I usually cited where the texts were taken from. I'd rewrite them only when the original texts were too complicated or too difficult to understand. I'd change some words or alter some sentence structures only" (Pat, Second interview).

Similar to Pat, Wan also reported using the same writing practice, paying more attention to citing original sources rather than trying to paraphrase the source texts. She stated that she had lifted certain parts from the literature, each of which may range from one to three or four sentences: "However, I didn't really paraphrase them. Rather, I combined them with the texts from different sources. I added some phrases or sentences using my own words to smooth out the connections" (Wan, Second interview). Both of them said that paraphrasing the original text was difficult as they needed to deal not only with word choices, but also

sentence structures. In addition, they also needed to ensure that their paraphrasing would not distort the meanings of the original texts. Wan sated:

> "I was afraid that my poor English, especially my vocabulary and grammatical knowledge, would change the real content of the original texts if I paraphrased them. So, when writing the draft, if it was not necessary then I'd not paraphrase. I preferred to cite the source of the text. This could help avoid plagiarism." (Wan, Second interview)

Both stated that their supervisors had accepted their work without questioning or commenting on the issues of plagiaristic tendency. They, therefore, interpreted that their supervisors accepted the ways they had made use of the source text.

By contrast, Anne, Ken and Joy agreed that, when writing their dissertations, their supervisors' expectations led them to be more aware of paraphrasing and plagiarism. Anne explained: "My supervisor was the first one who read my first drafts. He told me that I needed to be careful about copying texts. He said he wouldn't read my drafts if I didn't try to rewrite the source texts by using my own words" (Anne, Second interview). Ken was also told by his supervisor that he needed to properly paraphrase the source texts. He said: "My supervisor said that it was fine if my writing was not good in terms of language mistakes. But it was not acceptable to 'cut and paste' from the literature to use in my drafts. I'd have been accused of plagiarism by the dissertation committee" (Ken, Second interview). Similar to Ken, Joy also reported that her supervisor placed great emphasis on plagiarism: "Before starting to write my first draft, my supervisor gave me a list of how to write in order to avoid plagiarism. I talked to other students who used to study with him. All said that he took this issue very seriously" (Joy, Second interview).

As can be seen, Anne's, Ken's and Joy's supervisors made it explicit that using source texts without proper paraphrasing was undesirable. This, however, posed a dilemma to the students. On the one hand, Anne, Ken and Joy agreed that they had not to be concerned about being accused of plagiarism after their dissertations were completed. They also perceived that it was a good opportunity for them to learn how to write academic English simultaneously. Joy, for example, foresaw the benefit of investing her time and energy on dealing with paraphrasing, saying that: "It helped me brush up my grammatical and vocabulary knowledge. I needed to consider word choices and a variety of sentence structures to use" (Joy, Second interview). Ken articulated:

"Paraphrasing was a nightmare to me. I needed to find words to replace the original texts. I also needed to change some sentence structures too. I had to read the texts carefully, and then tried to rewrite them but still keep the same meanings. However, after finishing paraphrasing and my supervisor corrected it, I could see what I did wrong." (Ken, Second interview)

On the other hand, these three students also perceived that they had to work harder on paraphrasing than their counterparts who were not required by their supervisors to carefully paraphrase their texts. Anne, for example, said that when she was constrained by time and pressure to try to complete her draft, she sometimes felt that it was not fair to her, to a certain extent, to spend more time trying to paraphrase the source texts. Anne said: "I may need to spend five or six hours paraphrasing a few paragraphs, while others may spend only one hour to add only some connections and put all source texts together. I sometimes wondered why I needed to work harder" (Anne, Second interview). Anne said: "Some supervisors didn't care much when their students just put stretches of sentences together without proper paraphrasing. Their students could finish their writing very quickly. They didn't have to struggle like me" (Anne, Second interview).

This section has explored the students' reuse of source texts in their drafts. While some students reported that they had not given much attention to paraphrasing the source texts, others were well aware of its importance. It appeared that the students' writing practices with reference to paraphrasing seemed to be principally influenced by the informed expectations of their paired supervisors.

6.3.1.2 Developing a repertoire of language choices

As reported in Chapters 4 and 5, the students reiterated that their limited English proficiency, compounded by their lack of formal training in academic writing, had posed several writing challenges to them. As can be seen in the preceding sub-section, the students could incorporate the content-carrying blocks of source text into particular parts of their writing. However, when the content of the students' writing was on the basis of their own synthesis of information generated from their research-based activities, the students appeared to have encountered higher linguistic difficulties in their writing process. The major reason, as all students reported, was that they had to rely more on using their 'own words', as Ken put it:

"The difference was that when I incorporated certain parts of the source texts into my writing, I only paraphrased them. I still could keep some

words and sentence structures. However, when I wrote something based upon my own ideas or research, I had to come up with words and considered how to put them together to form sentences and paragraphs. In other words, I had to translate my ideas into words. I didn't write by adapting existing texts." (Ken, Second interview)

In order to negotiate with the linguistic demands of writing, the students strategically chose from appropriate lexical choices, imitated a variety of expressions, and applied syntactic structures that they had observed from journal articles and completed dissertations. Pat was well aware of this practice, stating that her supervisor encouraged her to make notes of useful vocabulary and expressions. Pat said that when she was reviewing the literature, her supervisor suggested that she learn how to write at the same time: " She advised that I write down in my notebooks words, expressions or even some sentences that I thought I could apply to my own writing in the future" (Pat, Second interview). Pat reported that this practice was useful in helping her to have enough linguistic resources when she started to write her drafts. Whenever she had difficulties in expressing certain ideas in English, she would look into her notebooks to see if she had any expressions that could be adjusted to fit into her writing. Similar to Pat, the other students also realised that they could learn the language and then make use of it in their writing through reading the literature. Although they did not make notes of useful language elements as did Pat, some said that they highlighted areas with a colour marker pen and others mentioned that they tried to remember elements while reading. Joy explained:

"When I was writing my conference papers, I faced problems in expressing some ideas. I then tried to find some words or expressions from the literature to use in my writing. It was effective. Since then, when I was reading any journal articles, I used a marker pen to highlight the parts of the journal articles, such as words, expressions or sentence structures, that I thought I could use in my dissertation writing." (Joy, Second interview)

As can be seen, the students believed that attention to and memorisation of language use, as they had observed from journal articles and dissertations, had proved useful to enhance their process of learning to write. Although they had frequently revisited the source literature to look for words or expressions to use in their writing, they mentioned that it was not necessary due to their lack of English knowledge. For example, Wan said that on several occasions, she referred to journal articles to remind her of certain formulaic expressions that

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she had already known. As an example, she described how once she wanted to find an expression for *trong-kaan* (a word in Thai which literally means 'correspond to'); she knew this expression in English but she could not retrieve it at the time. Wan then browsed the discussion sections of a few journal articles, as she remembered that this expression was often used in the discussion section. Wan recounted: "I went through the discussion sections and then I got it: 'in conformity to' or *trong-kaan*. Actually, I knew this expression but I just couldn't figure it out at the time" (Wan, Second interview).

Another advantage of revisiting the source text was to search for a wide range of language choices to use in writing. The students perceived that using a variety of words, expressions and sentence structures could help improve their drafts. For example, Pat said: "I tried to polish my writing. I wanted it to look good. For example, I had phrases, such as according to, in accordance with, on the basis of, and based upon. I tried to use different expressions by imitating what I observed from the articles" (Pat, Second interview).

The students also reported having made an effort to analyse the language of the source text in order to learn useful syntactic structures. Ken, for example, was aware that his writing was awkward. He mentioned: "The same ideas could be written in a more precise way when using appropriate words and sentence structures. I sometimes looked at how others wrote and then tried to apply what I saw to improve my writing" (Ken, Second interview). Anne also mentioned that when she was uncertain of how to structure sentences, she would try to learn from the literature. One example was when she adapted sentence structures from Tim's dissertation to use in her own writing. Anne recounted:

> "I used some sentences from Tim's dissertation as models where they were used to explain the same process of experiment… This is not a real sentence but I want to show how I used this strategy. For example, one sentence reads '*Mix Chemical A with Chemical B and leave them for 20 minutes before pouring Chemical C into them'*. I could modify them by saying that '*Mix Chemical C with Chemicals D and E and leave them for 30 minutes before mixing Chemical F with them'*. In reality, I modified more, but the original sentence really helped me to structure my own sentence with ease." (Anne, Second interview)

Consulting the journal articles and completed dissertations also helped the students to improve text coherence. The students expanded their repertoire of transitional words and phrases, and then learned how to use them from their exposure to source readings. For

example, Pat reported paying particular attention to a collection of transitional words that could be used to combine sentences and relate different parts of her drafts together. She said: "My supervisor said that each part of the draft must be connected logically, which would help the reader to follow my writing. I then tried to remember different transitional words from the journals and learn how to use them" (Pat, Second interview). Joy also recounted her experience of trying to improve the coherence of her text. She said: "My supervisor said my writing was fine when he saw my first draft. However, he said I should improve the smooth flow of the draft by using appropriate transitional words and phrases" (Joy, Second interview). Based upon her supervisor's suggestion, Joy resorted to a few dissertations, observed how transitions worked, and then applied them in her writing.

Simply put, to compensate for their limited English proficiency, the students used source readings as their textual mentorship. They developed a repertoire of words and expressions from their exposure to the source texts in order to help them express their ideas clearly and concisely. They also made an attempt to analyse syntactic structures and connective devices used in the source texts, and used them to improve the quality of their writing. The next section will explore other practices that the students employed in order to negotiate the linguistic demands of writing their dissertations.

6.3.2 Using Thai (L1) and translation strategies

As previously reported, all students stated that they had endeavoured to write the first drafts of individual chapters in English from the start. However, when they had difficulty expressing their ideas spontaneously in English, they were inclined to switch to writing in Thai. They also reported making use of L1 and subsequent translations in completing their first drafts with varying degrees and for different purposes.

6.3.2.1 Using Thai to facilitate the process of writing

The students mentioned that they had switched to Thai frequently in the process of writing their first drafts. They perceived it as beneficial in helping them to maintain a good flow of thoughts whilst writing the drafts. Pat, for example, said: "Very often, I couldn't put my ideas down directly in English in full sentences. I got stuck with some words, so I jotted them down in Thai. This helped me to complete the whole paragraph without any interruptions" (Pat, Second interview). Joy also asserted:

> "Sometimes, the words or expressions I wanted to write in English were
>
> on the tip of my tongue. To stay focussed on my writing, I wrote down

what I intended to say in Thai first. I'd come back to replace them with the English equivalents when I could recall them or, if I couldn't, after I consulted the literature." (Joy, Second interview)

The students reported some variation in the levels of their L1 use. Pat, Anne and Joy mentioned that they usually did not write in Thai beyond a sentence level. They also stated that, although their writing was constrained by their limited English knowledge, they could, to a certain extent, express their ideas in English with satisfaction. At the initial stage of their writing, they focused on idea production and the meaning of the text, paying less attention to grammar. They would switch to writing in Thai only when they had difficulty finding intended words or expressions in English. Anne, for example, explained that she tried to write the whole paragraph in English straight away. Although she was aware that she made several grammatical mistakes in her writing, she believed that her writing was understandable. She said: "I focused on the content first. I could correct the grammatical mistakes later. Yet, I'd mix some Thai words or expressions in my text when I got stuck in finding their English equivalents at the time" (Anne, Second interview).

By contrast, Ken and Wan reported having relied more on L1 while writing their drafts. Both of them reiterated that they were not confident about their writing in English and, on several occasions, could not express their ideas directly in English. As a result, apart from switching to use L1 when having difficulty in finding intended words or expressions in English as Pat, Anne and Joy did, Wan and Ken mentioned that they sometimes wrote the whole paragraph first in Thai and later translated it into English. Wan said:

"I found it too difficult to write certain parts in English, particularly when they involved complicated ideas. For example, when I wrote the discussion part, I wrote many paragraphs in Thai first. Coming up with what to discuss was very tough. Compounded by my limited English knowledge, writing the discussion part in English was far more difficult. So, I preferred to write it in Thai first to make sure that the content was fine." (Wan, Second interview)

Similar to Wan, Ken mentioned that, with his limited English ability, he had relied on his initial writing in L1 and subsequent translation in order to complete his drafts. As he pointed out: "I didn't want to 'switch my brain' to deal with the content and English at the same time. I wrote in Thai first, so I didn't have to worry about the content. Later, I only dealt with English while I was translating it" (Ken, Second interview). Ken said that his use of L1was also encouraged by his supervisor. Ken recounted that when he wrote the first draft that reported the results of the laboratory experiments, there were certain parts that his supervisor

could not understand. His supervisor, therefore, told him that he could send her the first draft of each chapter which was written in a combination of Thai and English. Ken said: "She suggested that I write in Thai first if I couldn't express my ideas in English. This would help her understand exactly what I intended to write. I could translate them into English later. If I couldn't, she would help me" (Ken, Second interview).

Pat was another student whose supervisor suggested that she could hand in the first draft written in Thai and English. Pat reported that after she had given her supervisor the first draft of Chapter 3 - the first draft of all that she had completed - a few days later she had a meeting with her supervisor to discuss the draft. Pat said: "My supervisor said that there were many unclear sentences. This was due to my incorrect use of some words, expressions and grammar" (Pat, Second interview). Like Ken's supervisor, Pat's supervisor advised that where she was uncertain about certain expressions in English, Pat could write those expressions in Thai and put them in parentheses following the English ones. Pat explained: "She said that she wanted me to try my best to write in English first. The Thai versions were meant to clarify my expressions in English in case that they were unclear. She could then help me fix my writing exactly and quickly" (Pat, Second interview).

To summarise, some students stated that they had preferred to write primarily in English and switched to Thai whilst writing only for certain words and expressions. Other students, however, reported having written certain paragraphs entirely in Thai and later translated them into English. At first, all students handed in their drafts, which were written completely in English, to their respective supervisors. However, as their supervisors had suggested, Pat and Ken later included some Thai in their subsequent first drafts in order that their supervisors could better understand, and then help improve, the drafts. The following section will explore other related writing practices: Thai-English translation practices.

6.3.2.2 Dealing with Thai-English translation

To complete their drafts, the students were required to translate the parts of their drafts previously written in Thai into English. All students reported having drawn on different sources for translation help. All mentioned that they had consulted the source texts, as reported in 6.4.1b. However, when searching for desired words or expressions in English was unsuccessful, they resorted to dictionaries, web search engines, and certain online communities for further language assistance.

All students considered dictionaries as the most effective and accessible tools for translation, but they varied, to some extent, with reference to their choices of dictionaries and the

purposes of dictionary use. The students reported having usually used Thai-English unidirectional dictionaries, including printed, on-line, and handheld electronic ones, in the initial process of translation. However, they realised that using a Thai-English dictionary was sometimes problematic because a given word in Thai could have various possible equivalents in English. Wan, for example, noted: "I once looked up a word *ruam-tua-kaan* (a Thai word which literally means 'merge') in a Thai-English dictionary, and found many possible equivalents in English, such as integrate, incorporate, merge, and mix. I was not sure how they were different from each other" (Wan, Second interview). In order to mitigate the problem, the students usually further consulted English-English dictionaries. Pat, for example, preferred to look up a word in a Collins COBUILD dictionary: "Since the definition and example sentence of a given word is clearly explained in simple English, I can easily understand its definition and learn how to use the word in my writing" (Pat, Second interview). Joy also commented on the importance of an English-English dictionary in her dissertation writing:

> "When I was uncertain about word nuisances and usage, an English-English dictionary was the first source I would refer to. A native speaker of English could possibly best tell me how to use a particular word. Yet, in reality I couldn't find any native speaker here. I couldn't ask for help from my supervisors all the time as there were too many words I was unsure about. My friends were happy to help, but what I found was that they also didn't know." (Joy, Second Interview)

The students also gave recognition to web search engines to enhance their translation and writing. They reported having used a web search engine to check any doubtful expressions that they had translated from Thai. Ken, for example, observed that using the Google search was more time-saving and effective than an English-English dictionary, particularly when he dealt with English beyond a word level. He explained: "I'd type the phrases that I was unsure of in quotations. Then, when the search produced only a few resulting links, I was aware that the expressions may be incorrect or not usually used by others" (Ken, Second interview). Anne also perceived the advantage of using a web search engine to improve her writing and translation: "When I used the Google search to check an expression or phrase I had written, if it was incorrect or rarely used by others, the search would suggest other alternative choices" (Anne, Second interview). In general, the students perceived that using the search engine could provide them with satisfactory language assistance. As Wan pointed out:

"The resulting links from the search helped me to consider if I needed to make changes to the expressions I had written. Actually, while checking my writing using the search engine, I felt like I was discussing my writing with someone. Using the search engine, particularly the Google search, my favourite one, couldn't give as good language feedback as my supervisor could. Yet, I still felt that it really helped me when I had no one to comment on or help correct my writing" (Wan, Second interview).

Of the five students, Ken and Joy sought language assistance from an online community. Both of them were regular users of pantip.com, one of the biggest and most well-known websites among Thai users. Ken and Joy visited the website where two major forums contribute to postgraduate education (Graduate Lounge), and English language learning (English Group). Ken said that he regularly visited the Graduate Lounge and posted some questions about English and his studies. He said: "There are a huge number of users on this forum. Many of them are postgraduate students in the fields of science. When I had problems with English, I asked them for help" (Ken, Second interview). Joy visited both the Graduate Lounge and the English Group, but preferred the former. She found that the users of the English Group had come from more diverse educational backgrounds, ranging from high school students to graduate students, whereas the majority from the Graduate Lounge were doctoral students. Joy said that whenever she posted a language question on the English Group and the Graduate Lounge, she received more and diverse replies from the English Group. Joy commented:

"I didn't really know about the users' exact backgrounds and their English proficiency. When their suggestions on my language problems seemed to be diverse, I needed to choose who I should trust. I was more inclined to follow suggestions from the Graduate Lounge since most were doctoral students. They may or may not have been correct, but they seemed to provide more reasonable suggestions than those from the English Group." (Joy, Second interview)

Ken and Joy perceived that online communities, like other sources of language assistance, were useful in providing them with language suggestions. One of the advantages was that the use of the forum was more interactive, compared to the other previously mentioned sources. Ken explained: "When I found some suggestions unclear, I could ask them to clarify. The users didn't only answer my question, but they also often discussed answers given by other

users. This helped me to come up with the best answer" (Ken, Second interview). However, they were aware that they also needed to evaluate if the suggestions received from other members of the online communities, as previously mentioned by Joy, were trustworthy. Ken concluded that when receiving suggestions on the use of words or any expressions from the forum, he always re-checked against the dictionary or the Google search. He also asked some friends for a second opinion.

To recapitulate, the students encountered certain writing and translation problems while working on their drafts. It appeared that they had drawn upon different sources of language assistance where possible. However, they were aware that each source had its own strengths and weaknesses in providing them with effective language assistance. As a result, they appeared to use different sources to complement each other.

6.3.3 Relying on the supervisor's feedback

As previously mentioned, the students wrote their dissertations chapter by chapter, and each chapter underwent several rounds of revision. In order to improve their drafts, the students reported that they had relied primarily on language corrective feedback from their supervisors. In other words, they perceived that the quality of their revised drafts was primarily determined by the extent to which they received language corrective feedback. However, the findings revealed that not all students had received satisfactory feedback from their supervisors as they had expected.

Pat, Anne and Ken reported that they had received useful corrective feedback and writing assistance from their supervisors. Pat said: "My supervisor not only corrected the language mistakes I had made, but also often explained why they were incorrect. This helped me understand what I did wrong" (Pat, Third interview). Pat perceived that it was important not to make the same mistakes that had already been corrected by her supervisor: "I didn't want my supervisor to think that I was irresponsible and always relied on her language help. When she perceived that I was a responsible student, she would be happy to help with what I needed" (Pat, Third interview). Aj Patcharee, Pat's supervisor, mentioned that her main aim in providing the language feedback to Pat's drafts was not only to try to eradicate language mistakes from the drafts, but also to help Pat learn how to write in the long term. She pointed out that, where possible and when time permitted, she would correct the language mistakes and provide explanations. From her observation, she believed that it was an effective way to help Pat improve her English because she found that Pat rarely made the same mistakes in later drafts. Very often, Pat would have a meeting with her supervisor to discuss her revisions. Aj Patcharee mentioned that she encouraged all of her students to

discuss with her after receiving back the draft with feedback: "I want my students to talk to me about what problems they have encountered. I may not be aware of those problems. When they let me know their problems, it then won't be too late for me to help them" (Aj Patcharee, Interview).

Compared to the other supervisors, Anne's supervisor was found to give the most extensive language feedback to the students. According to Anne: "He made a lot of changes to my writing. He rewrote many sentences for me. You can see from these [pointing to a few paragraphs of the draft], he crossed out whole paragraphs and rewrote them" (Anne, Third interview). In general, Anne appreciated the way in which her supervisor provided her with the feedback because "I believed the language of my drafts was excellent because it was almost rewritten by my supervisor, maybe more than 60-70 per cent. I only retyped what he rewrote. I did not make any changes to my drafts beyond his corrections or his rewrites" (Anne, Third interview). Although Anne was reportedly receptive to extensive language corrections given by her supervisor, she expressed that on some occasions she felt very frustrated in her attempts to meet her supervisor's expectation. Anne said:

> "I redrafted each draft several times. I followed exactly what he
> rewrote on my draft. When I returned it to him, he still kept changing
> several parts, although those parts had not been previously identified
> as problematic by him. It seemed that he sometimes randomly
> corrected what he wanted, so my draft took a long time to finish."
> (Anne, Third interview)

Anne and her supervisor, Aj Worapong, appeared to hold different perspectives about revising the draft. Anne believed that she was required to revise only what her supervisor corrected in the draft, whereas her supervisor expected that Anne should also have attended to other parts of the draft. Aj Worapong explained:

> "Very often, when I corrected, for example, three paragraphs of a
> particular page, she would return the revised draft to me with
> corrections restricted to those three paragraphs. She didn't correct
> mistakes in other paragraphs, even though they contained the same
> mistakes." (Aj Worapong, Interview)

On reflection, Aj Worapong admitted that he was uncertain why Anne did not try to correct the draft beyond his corrective feedback that he had provided: "Unfortunately, I was quite busy at the time. I didn't have a meeting to discuss with her about her writing problems. It

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might have been due to her limited English or she might have interpreted it as meaning that I didn't want her to correct those parts" (Aj Worapong, Interview).

Similar to Aj Patcharee, Aj Worapong also asserted that his responsibility as a supervisor included not only guiding Anne to conduct research but also assisting her in dealing with language problems during the writing process. He explained: "To help our students to be potential scientists or to prepare them for further education, we need to help them to excel at science knowledge and to be able to write in English, as it's a major tool by which to show their research expertise" (Aj Worapong, Interview). He perceived that his feedback in the form of rewriting, although probably perceived by some colleagues as unnecessary, "could serve as good language models to help Anne to learn how to write like a scientist" (Aj Worapong, Interview). He did not explain why certain parts required correction, as Aj Patcharee did, because he believed that Anne could inductively learned how language worked from being exposed to and analysing the corrective feedback he had provided.

Ken reported that he had received generous language assistance from his supervisor while working on the between-draft revisions. However, the way in which Ken revised his drafts was different from the other students in that he worked very closely with his supervisor and another doctoral student. While the other students primarily revised their drafts on their own by relying on the written corrective feedback from their supervisors, Ken had several meetings with his supervisor where they worked collaboratively to revise the drafts. Ken said: "As my drafts contained a lot of language problems, it was very difficult for me to revise them on my own. Usually, my supervisor and I went through the draft together, and she helped me correct and rewrite many parts of my drafts" (Ken, Third interview). Aj Nisakorn, Ken's supervisor, stated:

> "Without discussing with him face to face, it was difficult to guess
> what he really wanted to say in some sentences. I knew that he did his
> best to try to write, but it seemed that he translated his ideas directly
> from Thai into English word by word by using dictionaries. He
> possibly picked up the wrong words to use and his poor grammar
> made everything worse." (Aj Nisakorn, Interview)

Ken mentioned that, on several occasions, he was very discouraged and had considered writing his dissertation completely in Thai. However, Aj Nisakorn believed that Ken could successfully complete his dissertation in English, although the drafts obviously contained a lot of language problems. She attributed this to the fact that his drafts were generally well-organised and included all the important information. Since Ken carefully prepared his

outlines and discussed them with Aj Nisakorn before he started to write, she could follow all the main points that Ken wanted to convey in his drafts. Aj Nisakorn said: "To me, helping students with language problems is easier than helping those who have problems about organising their drafts. Ken had only problems with grammar and word choices. These only needed time but they were not too difficult to handle" (Aj Nisakorn, Interview). Secondly, Aj Nisakorn was satisfied with Ken's effort in trying to paraphrase the source text. From her supervision experience, she found that many of her students 'cut and pasted' the source text to a certain extent, although she told them explicitly that she would not accept such writing practice. She found that Ken was one of only a few students who followed her suggestion strictly about paraphrasing, although he appeared to have more language difficulties than other students. She commented: "This showed that he had a strong desire and had a great potential to learn how to write. I'd definitely help this kind of student" (Aj Nisakorn, Interview).

As can be seen, Pat, Anne and Ken were satisfied with the feedback and language assistance offered by their supervisors. In contrast, Joy and Wan reported that they had not received enough corrective language feedback that would help improve the quality of the language of their drafts. Joy reported that his supervisor often wrote a few comments on the draft concerning the problems of the use of English on the margin, such as overuse of articles, problems with passive-active voices, and wrong use of tenses. She perceived that the comments were useful because they pointed out her writing problems, yet she preferred more explicit language correction. She said:

> "I sometimes could not correct by relying on his comments. I didn't
> know exactly how they were wrong. For example, when he commented
> that I overused articles, I didn't know how to correct them. Many
> language problems were beyond my ability to solve on my own." (Joy,
> Third interview)

As her supervisor did not seem to provide explicit corrective feedback for Joy, she resorted to asking for help from some friends and an English tutor at the Self-Access Language Learning Centre. She said that she was worried that her drafts would contain too many language mistakes and this would possibly cause her certain problems during the oral defence of her dissertation. As her supervisor did not provide her with enough corrective feedback, she needed to seek more help from others. Although Joy had a few meetings with her supervisors to discuss the drafts and the feedback received, most of the time the meetings were devoted to discussing the presentation of the content. Joy said: "Rather than talking

about my language problems, he seemed to enjoy advising me how to improve some tables and graphs, for example. He also suggested that I add some pieces of information into the drafts. All seemed to be about the content" (Joy, Third interview). However, Aj Boonyarit viewed that his suggestion on the presentation of the content was an important aspect of learning how to write as a scientist. He explained:

> "Many students misunderstand that good writing is a piece of writing that is language error-free. In fact, for scientific writing, it's about how you're going to present your work effectively, such as how to use appropriate graphics to tell others about your research results. For language problems, my students can find anyone to help edit, but for writing like a scientist, I think no one can teach my students better than me." (Aj Boonyarit, Interview)

From Aj Boonyarit's perspective, a dissertation supervisor should not put undue interventions on correcting the student's language. He thought that the dissertation should "…reveal the student' true writing ability. The name on the cover shows who writes it: the student. As long as the content is correct and the language is understandable, we should not be over concerned about it" (Aj Boonyarit, Interview). However, he mentioned that he usually provided Joy with explicit language correction or rewrites of certain parts when he found that her writing could cause misunderstandings or misinterpretations to the readers.

Similar to Joy, Wan mentioned that she was not satisfied with the feedback provided by her supervisor. She said: "My supervisor was too busy with his own research. He kept my drafts for several weeks and, when they were returned to me, sometimes there were some comments on the content but very few language correction suggestions" (Wan, Third interview). Wan reported that she wanted her supervisors to thoroughly correct language mistakes in all of her drafts: "I thought this would help me learn what I did wrong. Then, I could improve my English from his language correction. I chose to write in English because I wanted to learn how to write in English too" (Wan, Third interview). Unlike Joy, Wan did not seek additional language help from others. She said: "I was not sure if other friends could help. I thought that their English was not that better than me, so I just relied more on my own writing ability" (Wan, Third interview).

Aj Dhirayu believed that the way in which he provided language feedback on Wan's writing was reasonable. He viewed that students should not assume that their supervisors would correct all language mistakes in the drafts. Rather, the students should also take some responsibility to learn and try to improve their own writing. He said:

"Actually, I used to correct certain parts of Wan's writing. However, I was quite disappointed that she didn't really pay attention to what I corrected. For example, she made a mistake regarding a superlative clause. I corrected two of them, but there were other places in the drafts that contained superlative clauses. When she returned the draft to me, it still contained several mistakes. So, I thought I had wasted my energy in correcting something and she didn't care." (Aj Dhirayu, Interview)

From this experience, Aj Dhirayu said that in other subsequent drafts he did not pay much attention to correcting language mistakes. Rather, he preferred to leave language correction to the final drafts of the revision process. Aj Dhirayu also had a different perspective about the role and expectation of the dissertation supervisor. He believed that it was beyond his responsibility to help the student with English language improvement. He said: "I could help only what I could, but I don't think that I'm supposed to help them master their English. If they have language problems, they should take additional language courses" (Aj Dhirayu, Interview).

This section has reported on the five students' dissertation writing experiences in the Text-Writing and Revision phase. The findings revealed that the students had employed different literacy practices in order to negotiate with the linguistic demands of writing and revising their chapter drafts. These practices included their strategic use of source texts, their L1 and translation strategies, and the feedback given by their supervisors. The following section will report on the literacy practices that the students used in preparation for the final drafts of their entire dissertations before submission.

6.4 Final Preparation of the Dissertations

The final preparation of the dissertations involved detecting the overall weaknesses of the dissertations, which were derived from combining all individual draft chapters. The students and their supervisors reported that this stage was principally concerned with minor amendments on dissertation format and language editing assistance. This was due to the fact that individual draft chapters had undergone meticulous revisions at the previous stages, particularly for the accuracy of the content and the appropriateness of chapter organisation. All students reiterated that they had expected their supervisors to provide them with adequate language editing assistance in particular. Whilst some supervisors also conceived that providing a full language editing assistance to their students was part of their responsibility, the others viewed that the students should be more self-dependent.

The students reported that they had sought language editing assistance primarily from their supervisors. Pat and Anne reported that they had been given sufficient editing assistance from their supervisors, whereas Ken, Joy and Wan felt a lack of substantive editing assistance. Since Pat and Anne perceived that their dissertations had been adequately edited by their supervisors, they did not look for additional editing help from others. The other three students, whose works were not adequately edited by their supervisors, employed different methods in order to compensate for the lack of support from their supervisor at this final stage of their dissertation preparation. The following subsections explore how the students dealt with the editing of their dissertations with reference to their perceptions of support offered by their supervisors.

6.4.1 Obtaining sufficient editing assistance from supervisors

Pat and Anne were the only two students who had reported that their dissertations had been thoroughly edited by their supervisors. Pat said: "When I was given good editing help from my supervisor, I had no need to look for further editing help from other sources. No one could possibly give me more effective editing help than my supervisor" (Pat, Third interview). Anne further stated: "My supervisor had paid close attention to all parts to ensure that the completed dissertation conformed to the Graduate School's regulations on format. He wanted to make sure that the dissertation had been formatted correctly and neatly" (Anne, Third interview). Both students also mentioned that their supervisors helped them eradicate other common mistakes and discrepancies, such as ineffective page breaks, inconsistencies in numbering headings and sub-headings within and between chapters, and a discrepancy between the page numbers on the Table of Contents and in the text.

Pat allocated approximately two weeks for the editing of her dissertation draft according to her supervisor's suggestion. She remarked: "My supervisor said that I needed to consider the deadline for dissertation submission and set aside some time for its editing. She said that she would definitely help me edit the draft but I needed to give her a reasonable timeframe" (Pat, Third interview). She also noted: "My supervisor engaged me in the editing process. After she had finished editing the draft, we had meetings to discuss it in detail. She always asked me whether I agreed on what she had corrected or changed" (Pat, Third interview). The editing process between Pat and her supervisor lasted approximately two weeks. Pat first gave the entire dissertation draft in hard copy form to her supervisor, and her supervisor then spent about one week editing it on her own. In the following week, her supervisor held three meetings with Pat and they went through the draft together again. As Pat said:

"In our meetings, we looked into the draft page by page. Aj Patcharee explained to me why she had made changes concerning the formatting and language of the draft… Some parts had been overlooked by us in the previous revisions. The others had been previously corrected, particularly the language issues, but she suggested possible alternatives in order to polish the whole text. In the latter case, I was the one who decided whether I wanted to follow her suggestions." (Pat, Third interview)

Pat also stated: "I spent at least two hours with my supervisor on each meeting to work on the draft. I'd say that it was the most intensive and invaluable writing tutorial I have had" (Pat, Third interview). After the final meeting with her supervisor, Pat retyped her draft and carefully rechecked the completed draft before submission. She expressed that she was not concerned about the final draft of her dissertation because it had been thoroughly edited and polished by her supervisor.

Aj Patcharee pointed out that helping her students with editing was part of her responsibility as a supervisor. She noted: "I help all of my students edit their dissertations. I usually follow the same practice, if time permits, by editing their drafts on my own and then holding further meetings with them to discuss the corrected drafts" (Aj Patcharee, Interview). She viewed that having meetings with Pat as part of the editing process was very crucial in that it helped her monitor whether Pat clearly understood the reasons why the changes made to the draft were necessary. She also stated that not only did her editing assistance help Pat produce a well-edited dissertation, but it was also pedagogically beneficial. Aj Patcharee realised that the programme aimed to prepare graduates with the ability to write sound scientific English necessary for their future studies and careers. In this respect, she believed that she should make use of any opportunity that she had in order to help Pat improve her written English. As she noted, "We had further discussions after I had finished editing the draft. In so doing, I believe that I could raise her awareness of good writing practices: being careful of linguistic aspects and recognising the recursive process of academic writing" (Aj Patcharee, Interview). She further explained: "The meetings could to a certain extent serve as a recap to provide Pat with the last but valuable language tutorials before she left the programme" (Aj Patcharee, Interview).

Like Pat, Anne also expressed her confidence over the quality of her dissertation, particularly in terms of the language, due to her supervisor's thorough editing assistance. She reported that at the time she had had about ten days to edit and prepare her dissertation in order to meet the deadline of submission. With such time constraints, her supervisor, Aj

Worapong, suggested that she send the dissertation draft to him by e-mail attachment. Aj Worapong spent about one week editing the draft and returned the 'clean copy' edited draft to Anne. She recounted:

"Aj Worapong edited the draft on his own and e-mailed me back the clean version of the edited draft. I compared it with its original version and found that he had carefully edited and neatly formatted the draft. Since he kindly prepared the clean version for me, I didn't have to add or make any changes to it. I only printed it out and it was ready for binding and submission." (Anne, Third interview)

Whilst Aj Patcharee envisaged the formative potential of her editing assistance, Aj Worapong's editing assistance given to Anne was primarily influenced by his pragmatic perspectives. Aj Worapong preferred to prepare the edited draft for Anne because it helped to shorten and facilitated the process of the final preparation of Anne's dissertation. He articulated: "Within the confines of time, it was more practical to return a 'ready-to-submit draft' to Anne. Then, she did not have to worry about further retyping and reformatting of the final draft. She needed to meet the submission deadline" (Aj Worapong, Interview). He argued that his editing practices should not be commensurate with undue practices because: "I viewed that I had not exercised inappropriate or unethical practices. Rather, I consider that my help was sensible and was part of the supervisor's responsibility. Not all supervisors offer this kind of help to their students, but I personally think they should" (Aj Worapong, Interview). Aj Worapong also pointed out that his editing assistance was aimed at helping Anne to produce a well-edited and formatted dissertation rather than serving pedagogical purposes. He remarked: "I edited the language and checked the draft against the formatting guidelines stipulated by the Graduate School. I focused primarily on the product per se. I didn't intend to teach her about writing at this stage, because I had already done that previously" (Aj Worapong, Interview).

Aj Patcharee and Aj Worapong shared a similar view that the MSc programme in polymer and petrochemical science, compared to the other programmes in the same faculty, expected a high standard of English in the students' dissertations. This could be seen from its policy of requiring all students on the programme to write their dissertations in English. Therefore, each supervisor on the programme, as they perceived, was inclined to carefully edit the student's dissertations before submission.

6.4.2 Obtaining insufficient editing assistance from supervisors

Ken, Joy and Wan reported that they did not receive adequate editing assistance from their supervisors, which they had previously expected. Ken recounted that his supervisor, Aj Nisakorn, had a very tight schedule during the last few weeks of his dissertation preparation. At the time, she was engaged in preparing and organising an international conference where she served as a member of the organising committee. Ken noted:

> "She was far too busy to help me edit the entire dissertation draft as she was assigned by the department to help organise the conference. She only looked at my results and discussions chapters, which were the most important chapters, and suggested slight changes to certain paragraphs… corrected some language errors, added one more diagram and reshuffled a few paragraphs." (Ken, Third interview)

Since Aj Nisakorn could not allocate enough time to edit the other chapters, she referred Ken to one doctoral student in the same lab for additional editing assistance. Ken remarked: "At least I could have another pair of eyes to help me detect and fix some careless mistakes, particularly language mistakes. He did help me identify several grammatical mistakes that my supervisor and I had overlooked in the previous revisions" (Ken, Third interview). Overall, Ken was satisfied with his supervisor's editing assistance, although she could not help edit the entire dissertation. He stated: "She helped me a lot throughout many months of my writing-up stage. It was just because of her busy schedule while I was preparing the final draft. But she was kind enough to find someone to help me. And he [the doctoral student] was really helpful" (Ken, Third interview). Ken had one meeting with Aj Nisakorn before submitting his dissertation: "She told me that I didn't need to worry about the draft, especially for language errors, because I could revise the draft after the oral defence. Most students did that. The committee would pay critical attention to the content and ensure that I didn't plagiarise" (Ken, Third interview).

Like Aj Patcharee and Aj Worapong, Aj Nisakorn expressed her view that a dissertation supervisor should provide sufficient editing assistance to the student. She was well aware of the difficulties faced by Ken during the editing process, indicating that "his English was quite poor, so it must have been very difficult for him to proofread the final draft on his own" (Aj Nisakorn, Interview). She also acknowledged that she had not provided him with adequate editing assistance: "I felt a bit guilty as a supervisor that I could not edit all the chapters at the time. But overall, the draft looked fine as it had been revised several times previously. It met an acceptable standard required for the dissertations in our programme"

(Aj Nisakorn, Interview). Aj Nisakorn further explained: "Our programme does not place too much importance on the draft before the defence. If the content is correct and the language is understandable, then it's fine. The student can have a couple of months to correct the language after the defence if the committee requires it" (Aj Nisakorn, Interview). She was not concerned about the formatting of the dissertation because she found that Ken was a careful and responsible student. This was a major reason why she believed that Ken, with assistance from the doctoral student, could be more independent in the editing process. She articulated: "From his previous drafts, I found that he typed and formatted them neatly. He knew what he could do; he didn't expect me to do extra work on those aspects. The only striking problem in his dissertation writing was his English" (Aj Nisakorn, Interview).

As can be seen, Ken did not express any dissatisfaction towards insufficient editing assistance, although his supervisor did not thoroughly edit the entire dissertation for him. This was because his supervisor had looked for a doctoral student to help Ken edit his work. However, Joy and Wan felt very disappointed that their supervisors had not provided them with adequate editing assistance as they had expected. Both Joy and Wan expressed their overwhelming concern over the quality of the language. Joy articulated that she was not worried about the problems at the level of content or argumentation because they had already been dealt with at the previous stages. Nor was she concerned about problems relating to formatting. As Joy explained: "I only needed to be careful when handling formatting problems. I could do it on my own; it required only time, patience and carefulness. But for correcting language errors, I had to rely on my English proficiency. I was less able to do it myself" (Joy, Third interview). In the same vein, Wan noted: "I was very worried only about language-related mistakes in my dissertation. With my limited English knowledge, it was too difficult to identify and then fix language problems on my own, especially for grammatical mistakes" (Joy, Third interview).

Joy recounted that, a couple of weeks before submitting her dissertation, she had handed in the entire draft to her supervisor. A few days later, her supervisor held a meeting with Joy to discuss the draft. Joy stated: "I found that Aj Boonyarit corrected only a few language errors on the draft. I knew there must have been many more errors, but he didn't correct them. He pointed out some problems about formatting, but I wanted him to pay more attention to the language" (Joy, Third interview). Joy expressed the view that she was at a linguistic disadvantage compared to some students, whose works were carefully edited by their supervisors. She explained: "I found that some of my friends' supervisors helped correct the language carefully. Some even helped rewrite many parts. My supervisor didn't do that, so who could I turn to for help?" (Joy, Third interview). Having perceived that her draft was

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not carefully proofread, Joy felt it imperative to find someone to help proofread her draft. However, she realised that it was not easy: "This is Thailand, not England or the USA. It's difficult to find someone with a high proficiency in English to help" (Joy, Third interview). Joy finally received help from one doctoral student on her programme: "I felt a bit more confident, although I realised that my draft was not as good as those of my friends whose works were edited by their supervisors. But this was the best I could do at the time" (Joy, Third interview).

From Aj Boonyarit's perspective, he was not concerned about Joy's dissertation draft in terms of language: "I realised that her draft contained several language mistakes, but it was understandable. Her writing was not bad. The committee could understand her research report for sure" (Aj Boonyarit, Interview). Aj Boonyarit emphasised that he wanted to keep his language editing interventions to the minimum: "It was her work, so it needed to reveal her own writing ability and style. As long as those linguistic mistakes didn't lead to misinterpretations, I didn't correct them" (Aj Boonyarit, Interview). He further clarified that the supervisor "should not be obsessed with correcting the students' language as it may create a false impression of the students' real ability" (Aj Boonyarit, Interview). He disagreed with other supervisors who extensively rewrote the students' final drafts: "I think it's useless. The dissertation may be beautifully written, but it's mostly rewritten by the supervisors. I'm not sure if it's ethical or not, but pedagogically it's useless. It doesn't help the students, and other tutors are not aware of the students' actual writing ability" (Aj Boonyarit, Interview).

Wan and her supervisor, Aj Dhirayu, also revealed different perspectives of editing assistance. Similar to Joy, Wan reported that her supervisor did not offer satisfactory editing assistance to her: "He read the final draft and returned it to me. He only told me to make sure that each of the in-text citations had a corresponding reference in the List of References. He suggested that I adjust some diagrams, and that's it" (Wan, Third interview). Wan said that her supervisor only corrected a few grammatical errors on the draft: "This really worried me. I found that some of my friends' draft dissertation had been proofread by their supervisors. They corrected and polished the language. My draft did not seem to have been sufficiently polished by my supervisor" (Wan, Third interview). Wan shared the same view as Joy, in that she felt that other friends whose supervisors had helped them with language correction benefited tremendously from their supervisors' proficiency in English. As Wan phrased it: "I was suggested that I needed to correct my own writing. With my English, I couldn't produce a dissertation with as good English as those of my friends because my supervisor didn't correct the language for me" (Wan, Third interview).

Apart from relying on her supervisor's proofreading assistance, Wan did not look for help from others. She remarked: "When my supervisor returned the draft to me, I had only one week left before submission. The problem was that I could not find anyone within such a short period of time. So, I tried my best to proofread it on my own, and then submitted it" (Wan, Third interview). Wan concluded that she was worried that her dissertation, with its scattering of language mistakes, could to a certain extent adversely affect her oral defence of the dissertation.

Aj Dhirayu acknowledged that he had not offered a thorough language editing service to Wan: "I helped her revise the drafts several times at the previous stages. She should be able to learn how to improve her work. The students should not take for granted that their supervisors are supposed to correct all language problems for them" (Aj Dhirayu, Interview). Like Aj Boonyarit, he believed that the supervisor should not overly correct or polish the student's draft. He commented: "We should not expect to have a dissertation with the same high standard of English that would be written in a British university. We should not be too ambitious. Rather, we need to compromise about this in our context" (Aj Dhirayu, Interview). He also further explained that the student's academic performance should be evaluated based upon how well the research project was conducted and how well the student defended her/his project during the oral defence. He noted: "Since we allow the students to choose to write their dissertations either in Thai or English, we cannot evaluate the dissertations by using 'good' or 'bad' English as a criterion because some students even write in Thai" (Aj Dhirayu, Interview).

All the supervisors, whether they preferred to offer maximum or minimum language editing assistance to their students, reported that no consensus on the quality of English in students' dissertations was made among the teaching staff. This resulted in different supervisors offering language assistance to their students with varying degrees. Aj Patcharee said: "We sometimes raise this issue to discuss among close colleagues. We don't know to what extent we should help our students with language. It seems that each supervisor has to make their own decision as to how much help they wish to offer" (Aj Patcharee, Interview).

On the basis of their observations, the supervisors reported that some dissertation committees rigorously criticised dissertations with poor English during the dissertation defence, whereas others seemed to be more tolerant towards it. Aj Dhirayu expressed his view: "I'm not very serious about language errors as long as the dissertation is understandable. I'm more realistic about what our students write. Otherwise, we are just reading students' dissertations that have been rewritten or excessively polished by our

colleagues" (Aj Dhirayu, Interview). Simply put, Aj Dhirayu shared a similar view as Aj Nisakorn and Aj Boonyarit, in that placing too much emphasis on mechanics or surface structure errors could result in the students believing that correct grammatical expressions were more important than the overall expressions of ideas. In contrast, Aj Patcharee and Aj Worapong held the view that dissertations written in English should be carefully edited to a certain standard. Aj Worapong stated:

> "I do not expect the students on the programme to write a dissertation to the same high standards as Thai students studying in the US. They have more exposure to English and get more help. That being said, the dissertations here should still not contain careless language mistakes that could be dealt with by dissertation supervisors." (Aj Worapong, Interview)

To recapitulate, the findings revealed that the supervisors varied markedly in the editing assistance that they provided to their students during the final preparation of the dissertations. All students expressed their particular concern over the language of their dissertations and expected that their supervisors would help them with language editing. However, only Pat, Anne and Ken were satisfied with their supervisors' language support. The other two students, Joy and Wan, reported that they did not receive adequate editing assistance from their supervisors. This was attributed to the differences between the students' and their supervisors' expectations of their roles and responsibilities. It was also closely associated with the extent to which the supervisors showed their tolerance to language errors made by the students. As Joy and Wan felt that they were not given sufficient editing assistance from their respective supervisors, they perceived that they were at a linguistic disadvantage compared to their counterparts, whose dissertations had been attentively edited by their supervisors.

6.5 Chapter Summary

This chapter has explored five student participants' process of writing their dissertations in English. The chapter has particularly looked at the writing practices that the students drew upon in order to complete their dissertations. The findings have revealed that, although the students had not received any formal training or instruction in dissertation writing, they learned how to write by putting conscious efforts into acquiring the knowledge of the dissertation genre, utilising different types of source texts and seeking assistance from other members of their academic communities. Effective academic and linguistic support from their respective supervisors has been found to be the most significant factor contributing to

the students' dissertation completion. In the ensuing chapter, I will provide an interpretation of the combined findings from Chapters 5 and 6 by applying the theoretical framework that I proposed in Chapter 2. I will aim, in particular, to offer a theoretical explanation of how the student participants learned to write their dissertations in the linguistically less advantageous academic milieu.

CHAPTER 7

DISCUSSION OF MAJOR FINDINGS

7.1 Introduction

This study explores five Thai students' experiences in writing their master's dissertations in English in the disciplines of science in a Thai-medium university. In this chapter, I discuss the major findings of this study, implementing the theoretical framework drawing on the constructs of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001). In order to gain an insightful understanding of the students' dissertation writing experiences, I also address the literature on academic literacy and writing practices, as discussed in Chapter 2, and the writing contexts and the students' personal and academic background, as explicated in Chapter 4, in the ensuing discussion. The discussion will be presented on the basis of the three research questions posed in Chapter 1 as follows:

1. What are the students' reasons behind their preference for choosing to write their dissertations in English?

2. How do the students prepare themselves to cope with the perceived linguistic demands of writing their dissertation in English?

3. How do the students negotiate the demands of writing their dissertations during the writing-up stage?

7.2 Discussion of the Students' Reasons behind Their Preference for Writing Their Dissertations in English

Discussion in this section is based upon the findings reported in Section 5.2, Chapter 5. The findings reveal that the students perceived that opting for English as a language for dissertation writing would optimise their opportunities for 1) being accepted by their immediate, local academic communities and 2) gaining access to the wider disciplinary communities. This could be theoretically explained by the fact that the students were engaging in literacy practices to which Pavlenko and Norton (2007) refer as "a process of

becoming, or avoiding becoming a certain person" (p. 590) in particular communities of practice. The process was also interrelated to the students' investment in a second/foreign language, resulting in their acquiring what Norton (2000) metaphorically terms "a wide range of symbolic and material resources" (p. 10) necessary for their envisioned future.

In the following sub-sections, I discuss the students' reasons behind their preference for writing their dissertations in English with reference to their negotiation and shaping of their identity, and their investment in their imagined communities.

7.2.1 The students' negotiation and shaping of their identities

Through the lens of learning as legitimate peripheral participation (Lave & Wenger, 1991; Wenger, 1998), I consider these students as ones who were negotiating and shaping their social and academic identities on their study programmes. To put it another way, they wanted to perceive themselves, and also be perceived by others, as knowledgeable research students. Ken's experience, for example, clearly resonates with his efforts in creating his new social identity, or 'becoming a certain person' as phrased by Pavlenko and Norton (2007). Even though he could be regarded as a successful student in science, as revealed by his high academic achievement and work experience as a research assistant, he lost his academic confidence due to his painful experience as a struggling writer of academic English prior to enrolling on the MSc programme (see Sub-section, 4.4.3, Chapter 4). Like many students in the same faculty, he critically related his overall academic performance as intertwined with his ability to use English, one of the academic qualities, as he strongly believed, that should be possessed by scientists from a non-Anglophone country. This led him to believe that his dissertation, when completed in English, could serve as a concrete proof of his control over English, resulting in his "redeeming my academic performance" (Ken, First interview).

The preceding discussion of Ken's experience is a good exemplar of how the students socio-historically attempted to construct their preferred identity through self-perception. Taking a socio-political aspect of academic communities (Casanave, 2003), I have also found the more complex nature of the students' negotiation of their identity constructed through ways in which they wanted to be perceived by others. For instance, Anne, Joy and Wan reported their ambivalent decisions about language choices for dissertation writing. They had initially planned to write their dissertation in Thai, attributing this decision to the seemingly more linguistic demands of writing dissertations in English. When time advanced, however, they learnt that most of the students on their programmes chose to write their dissertations in English. This influenced their decisions to reconsider writing their dissertations in English

in order not to be seen as 'different' from others. Their decision-making in switching to English may be interpreted as a strategy in which they tried to reify themselves as legitimate participants on the basis of practice preferred by their academic communities (Wenger, 1998). In other words, by means of using English, the students could index themselves as members of their academic communities through affiliation and belonging (Leki, 2006; Pavlenko & Lantolf, 2000). This could be clearly seen, for example, from Wan's account. Wan was afraid that writing her dissertation in Thai may hinder her from aligning herself with other students on the same programme. She did not want to be "left out", "seen as different", "seen as academically inferior to others [her course colleagues]" or to be seen as someone who "no one listens to" (Wan, First interview). In light of this, it could be interpreted that Wan wanted to negotiate her identity by avoiding becoming a certain person (Pavlenko & Norton, 2007). Rather, she attempted to reify herself as a viable participant on her study programme. The ways in which the students put efforts into creating their new identity, as I have explicated through Ken's and Wan's experiences as examples, support the claims that social identity is a becoming and dynamic action (Wenger, 1998), and that it may shift based on a desire for recognition, affiliation, security, and safety (Casanave, 2002; Norton, 2000; Norton & Gao, 2008).

7.2.2 The students' investment in their imagined communities

The discussion of the findings in the preceding sub-section has placed theoretical emphasis on the students' negotiation of their identity intricately connected primarily to their alignment with their local, interactive communities of practice. The students, however, are also found to extend their alignment to include their imagined communities (Norton, 2000, 2001) in which they had planned to join after their master's degree graduation. Anne, for example, highly valued the importance of writing her dissertation in English, aiming to use her completed one to inform her prospective employer of her ability to use English. The other four students, who determined to pursue their doctoral studies, also planned to use their dissertations as proof of their English to impress the programme's committee who were in charge of selecting new candidates to a doctoral programme. Considering this aspect of the findings, I should like to argue that, through their imagination, these students aligned themselves in those future communities, creating their identities as a scientist in a professional setting or candidates in doctoral programmes. These perceptions of the utilitarian aspects of their dissertations and their constructed identities, as closely tied to their envisioned future, provide empirical support for Norton's (2000, 2001) notion of investment in imagined communities. From the theoretical lens of investment, these students invested in writing their dissertations with the understanding that they would have a good

return on their linguistic investment; that is, symbolic and material resources (Norton, 2000). To elaborate, they anticipated that they would gradually develop their English proficiency and achieve academic credentials, or symbolic resources. As a result of this, they would then have an opportunity to secure good jobs and further doctoral education, or material resources. This aspect of the students' linguistic investment also finds support in empirical studies (e.g. Gao *et al.,* 2008; Haneda, 2005; Renganathan, 2005), as discussed in Chapter 2, which call for insights into the interplay between L2 learners' imagined communities and their motives in learning and using L2.

Canagarajah's (2002) articulation of critical academic writing in a second language appears to appropriately encapsulate the students' motivation in choosing to write their dissertation in English:

> The production of texts is not an end in itself. We don't write simply to produce a text – and leave it at that. We produce texts to achieve certain interests and purposes. (Canagarajah, 2002, p.4)

7.3 Discussion of the Students' Linguistic Preparation for Dissertation Writing

This section discusses the findings reported in Section 5.3, Chapter 5. The ensuing discussion not only places emphasis on the students' learning experiences from theoretical perspectives, but also pays critical attention to the institutional contexts. This will assist in enhancing our understanding of the students' experiences in linguistic preparation which, to a certain extent, were constrained by the availability of the institutional support.

Given the findings, it is apparent that the students made every effort in preparing themselves to handle the linguistic demands of writing their dissertations by preferably attending English classes on offer at the English Language Teaching Unit (ELTU). Some also resorted to services provided by the Self-Access Language Learning Centre (SALLC). They were, however, disappointed in that the university did not seem to provide postgraduate students with appropriate language support. As can be seen from the contextual information provided in Section 4.2, Chapter 4, whilst the students were encouraged to write their dissertations in English, the Faculty of Science did not provide any formal language assistance to its students. The ELTU, whose responsibility it was to provide English teaching and support to students across the university, also did not offer any courses specifically geared towards academic writing and dissertation writing. Some courses that the students attended seem to

be designed and delivered without what Benesch (2001) calls 'rights analysis'. As a result, these courses, as I will later discuss based upon Joy's and Wan's experiences as examples, created unfavourable social and classroom conditions for the students because they could not foster the student engagement in classroom activities. The ELTU has established the SALLC, assuming its role in encouraging more autonomous English language learning among students. Most of the students in this study, however, seemed to have not been adequately motivated to use language resources available at the centre.

In the ensuing discussion, I place particular emphasis on the students' experiences in their attempts at improving their English to meet the perceived linguistic demands of writing their dissertations. Sub-section 7.3.1 first discusses a lack of English classes on campus for postgraduate students, particularly those emphasising academic writing. It also theoretically discusses the students' experiences in attending English classes offered by the ELTU. In Sub-section 7.3.2, I discuss the students' experiences in using services provided by the SALLC. The major reasons for centrally discussing the students' experiences in relation to their attendance of classes at the ELTU and making use of services from the SALLC are on two counts. Firstly, the students reportedly relied on these two educational units as the most accessible sources of linguistic preparation in their L2 writing settings. Secondly, the findings disclose the discrepancies between the students' needs for effective language support and the university's actual language provision through the ELTU and the SALLC. Discussion on the students' experiences with the ELTU and the SALLC would, therefore, effectively serve as a basis for further discussion on pedagogical implications in Chapter 8.

7.3.1 The students' experiences in attending English classes at the ELTU

On the basis of my experience of working with the ELTU and my discussion with the teaching staff during my fieldwork, I have realised the decision-making in prioritising the provision of English for Academic Purposes (EAP) courses to students at Central Bangkok University. A lack of EAP courses for postgraduate students is traceable on three grounds. Firstly, the ELTU has been initially established to provide language support to non-English major undergraduate students across the university. These students are all required to take at least three to four compulsory English courses as part of their graduation requirement. Although there have been more courses offered to postgraduate students since the last decade, priority is still given to a dramatically increasing number of undergraduate students. Recruiting more teaching staff may possibly pose monetary problems to the organisation because Central Bangkok University is a public university where funding is primarily dependent upon the government. With the imbalanced proportion between the number of

teaching staff and that of students, it seems that offering courses focusing on general language skills is the most practical and cost-effective solution in response to the demands of language needs of postgraduate students from different faculties.

Secondly, since the medium of instruction and communication at this university is predominantly Thai, it seems that teaching writing skills has played a less important role, compared to teaching reading skills. Most of the English courses offered at the ELTU seem to place emphasis on reading comprehension as a tool for assisting postgraduate students in reading the literature in their fields. As Eskey (2005), Thampradit (2006), and Zhou (2008) have pointed out, EFL reading seems to be a priority for EFL learners because they may not need to speak or write the language in their day-to-day lives in their EFL settings. They, however, need to be competent in EFL reading in order to access the wealth of information essential to their academic learning and also for their professional success. Hongboontri (1996) and Tubtimtong (1994) have found that academic writing seems to have a major role to play only for a small number of postgraduate students in Thai universities who may need to write their dissertations or publish their academic work in English. This may be the reason why, as Hongboontri (1996) has noted, academic writing courses are rarely offered at the graduate level in Thai universities.

Finally, the ELTU has lacked comprehensive research on the language needs of postgraduate students. When I was at the research site, I went through a collection of research reports from 2001-2009 by the ELTU's teaching staff, compiled by its research department and made available in the library. I did not find any research report that focused on postgraduate students' language needs, particularly the needs of science students. The lack of this kind of research may result in the ELTU designing, offering, and delivering English courses that may not meet the students' expectations in relation to language needs and classroom activities. Joy's and Wan's experience manifest this critical issue, which will be discussed in detail in the following section.

As reported in Section 5.3.1, Joy enrolled on the Skills for Graduates course at the ELTU and developed a negative attitude towards it. She felt that she had to "study something irrelevant to my actual academic needs" (Joy, First interview). Joy's experience could serve as support for my previous explanation about English courses, which tended to cater for the wider community of graduate students. To be fair to Joy's English tutor, it is undeniably true that it was difficult for him to organise his course to meet the expectations of all students in the class who came from different disciplines. Joy's experience could also be theoretically discussed using the notion of 'brokering' in communities of practice (Wenger,

1998). From Joy's perspective, she perceived that what she had learnt from the course, particularly the citing practices, could not be applied to her dissertation writing. In other words, there was a missing connection (brokering) between the two communities: the English class and her programme of studies, in terms of English taught by the course tutor and English needed for her actual dissertation writing. Her resistance to the class was caused by her perception that the tutor lacked the knowledge of writing in her discipline. Her tutor could be considered as a less effective broker who could not "introduce elements of one practice into another" (Wenger, 1998).

Joy's attitude towards the course could also be further explained by the concept of resistance, which Norton (2000, 2001) elaborated from the concept of non-participation originally proposed by Wenger (1998). Norton (2000, 2001) has argued that, in a language classroom, the course content may encourage students' resistance and non-participation when there is a disjuncture between the students' imagined community and the curriculum goals. As can be seen from Joy's experience, she wanted to learn 'scientific English' in order to prepare herself for writing a dissertation in her 'imagined community', the community that she would enter immediately when she started writing up her dissertation. Unfortunately, the course could not respond to her needs. Joy's experience supports previous studies (e.g. Bacha & Bahous, 2008; Huang, 2010; Zhu, 2004) in that EAP courses, if not carefully designed and delivered to capture the students' expectations, could not help students prepare themselves to cope with the discipline-specific writing demands.

Wan is another example representing the student who had high motivation in linguistic preparation for dissertation writing. Based upon her experience in the English for Science Graduate course reported earlier, she appreciated the course tutor: "She was very well-prepared and what she taught was very useful" (Wan, First interview). It could then be said that the course tutor was 'a good broker' whose teaching was considered useful for Wan's future use. However, Wan later withdrew from the course. The major reason was that she perceived that other classmates had higher language proficiency than her. She could not keep up with the class, which made her frustrated. Wan's withdrawal from the class could be considered to be intertwined with her non-participation (Wenger, 1998) in the class. She felt marginalised in the class because she could not contribute to class discussions or engage in other class activities. I should like to argue here that, by applying the notion of non-participation (Wenger, 1998), through her self-perception Wan constructed her identity as a student with low English proficiency. Wan's experience was similar to some Malaysian ESL students' experiences of learning English at a Malaysian university as reported by Renganathan (2005). These Malaysian students tried to avoid speaking in English in class

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with their peers from the same ethnics, whom they perceived to have a higher speaking ability. Renganathan (2005) attributes this avoiding practice to the students' construction of identity as L2 speakers with less English proficiency.

7.3.2 The students' experiences in using services from the SALLC

In addition to seeking language courses as a means of improving their English, some students also made use of resources available at the Self-Access Language Learning Centre (SALLC). Joy was the one who benefited from using different services from the SALLC. She had a positive attitude towards using the services and enjoyed more autonomous learning. She attributed this to her opportunity to receive careful guidance from the language tutors who helped run the centre. Ken and Anne, who were aware of the services at the centre, could not make full use of writing workshops held by the centre. One major reason was that they could not draw a clash-free timetable between their research work and the sessions available. Ken's and Anne's difficulties in joining the writing workshops should be paid attention to. Both of them, like many other graduate students in the disciplines of science reported by Huang (2010), appeared to be very busy handling extensive lab experiments, or were away from the campus for fieldworks. This could sensibly explain why they had time constraints when they wanted to make full use of certain services provided by the university.

Pat and Wan, who did not complete their first degrees at this university, said that they had not known about the writing workshops provided by the SALLC. It seems that, to a certain extent, both of them felt that they did not belong to the wider community at the university level. As Wan said, "If you did not do your undergraduate here…your life as a graduate student here is restricted to your faculty only" (Wan, First interview). Both Pat and Wan did not know about the writing workshops due to the ELTU's lack of publicising its services to postgraduate students. As previously discussed, the ELTU's main responsibility seems to cater for undergraduate students' language learning. This may be the reason why Anne, Ken and Joy, who completed their undergraduate studies at this university, appeared to learn more about the available services provided by the ELTU.

A critical look should also be given to the ways in which the students made use of other available resources at the SALLC. While Joy appeared to be a regular visitor of the SALLC, the other four students did not. As I have previously discussed, Anne and Ken seemed to be enthusiastic about improving their English, but complained that they could not attend language courses and writing workshops provided by the ELTU due to time constraints. Scrutiny should also be given to understanding ways in which they made use of the

language learning resources at the SALLC, which were more flexible for them in terms of their available time and learning pace. Intriguingly, Anne, Ken, Pat and Wan reported that they did not visit the SALLC because they were uncertain about how they could be self-dependent in their learning without a language tutor as in a formal English classroom. From their perspective, it is reasonable to conclude that they were not aware of the potential advantages of self-access language learning and being autonomous in learning a foreign language. Based on their empirical studies, Cotterall and Reinders (2001), Kijsiripanth (2006), and McMurry (2005) have argued that L2 students could be encouraged to effectively use resources in the Self-Access Language Learning Centres when they are given a clear explanation and adequate training about how to use those resources. Studies focusing on Thai students' learner autonomy by Anantasate (2001), Intradat (2004), Vanijdee (2003), and Wasanasomsithi (2004) have revealed that Thai students display varying degrees of learner autonomy and generally express their positive attitudes toward autonomous learning. These studies, therefore, have suggested that there is potential in promoting Thai students to be more autonomous in improving their English. I should like to argue that if Anne, Ken, Pat, and Wan had been adequately guided by English tutors or language brokers (Wenger, 1998) about how to make effective use of resources available in the SALLC, they would have benefited from them.

To recapitulate, although the students enthusiastically sought access to different language support and linguistic resources, not all of them could effectively do so. On one level, it is primarily attributed to the university's lack of effective provision of language support to them. On another level, the students' access to language support provided by the university was further constrained by their own tight schedules due to their academic and research activities required by their programmes of studies. In addition, the identity that the students created, as seen from the case of Wan, may also hinder them from accessing some linguistic resources. From the findings and discussion above, I agree with Haneda (2005), Norton (2001) and Ushioda (2009) in that students with high motivation in learning and improving their L2 may not invest, or may not be successful in their investment, in learning L2 (see Sub-section 2.3.1, Chapter 2, for the differences between 'motivation' and 'investment'). That is, the students in this study were highly motivated in improving their English as preparation for their dissertation writing. Unfortunately, many were not successful in their investment in learning English. This can be seen, for example, from Joy's resistance to the Skill for Graduate class, Wan's withdrawal from her English for Science Graduates course, and most of the students' unawareness of the usefulness of self-access learning materials.

Given the discussion above, it is reasonable to conclude that the students appeared to be underprepared in their abilities to cope with the linguistic demands of writing their dissertations in English. This raises the intriguing question of what practices they used in writing their dissertations at later stages as a means to compensate for their limited English proficiency, particularly for their writing ability. This question will be discussed in the following section.

7.4 Discussion of the Students' Negotiation of Dissertation Writing During the Writing-Up Process

This section discusses major findings from Chapter 6. Applying the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998), the discussion emphasises the students' use of different literacy practices in writing their dissertations, as affected by their engagement with their local, immediate communities of practices.

As Swales (2001) has argued, writing at postgraduate level is not a straightforward process but is more concerned with "new starts and unexpected adjustments" (p. 52). Casanave (2002) and Krase (2007) have asserted that L2 writers who do not understand their academic communities' expectations usually approach their literacy activities through trial and error, an approach found to be common among students at both undergraduate and postgraduate levels. The findings reported in Chapter 6 suggest that the students put considerable effort into coming to grips with the tacit academic literacy expectations of their study programme. For instance, in the pre-writing phase, they reported having strategically employed different practices in attempting to learn what Casanave metaphorically calls "academic writing games" (Casanave, 2002, p.5), aiming at mitigating a false start in their writing. They later negotiated the demands of writing, revising, and editing their dissertations through their engagement with their local communities of practice.

In the following sub-sections, I discuss the students' writing practices through the lens of their multidimensional engagement in different literate activities: their interactions with written artefacts, their interactions with other members of research communities, and their use of other coping strategies.

7.4.1 The students' interactions with written artefacts

One characteristic of learning in a community of practice is an ability to understand and produce its set of shared resources, or a "shared repertoire" (Wenger, 1998, p. 82), such as words, symbols, genres, and specific ways of saying and doing things. A shared repertoire

that the students used in the process of learning to write their dissertations included different written artefacts previously produced by other more experienced members of their academic and disciplinary communities (e.g. a Graduate School Handbook, completed dissertations, and journal articles) and those produced by the students themselves through their engagement in communities' activities (e.g. research-group/conference presentation slides and conference papers). These artefacts are useful because, as Wenger (1998) has argued, they "can be reengaged in new situations" (p. 83) and thus used as shared points of reference for learning. The findings reported in Chapter 6 clearly reflect ways in which the students learned how to write through their interactions with their community's shared repertoire.

The students reported having browsed several dissertations completed on their programmes, paying critical attention to ones supervised by their paired supervisors. Paul, a Chinese student in an American university in Tardy's (2005) study, is also found to have gleaned ideas for organising his master's dissertation from spending a great deal of time going through other master's dissertations. The students in this study are, to a certain extent, more strategic than Paul as they not only paid attention to organisations of dissertations, but also were aware of the primary readership of their dissertations, i.e. their supervisors. Their learning-to-write practice can be comparable to Villanueva's (1993) strategic use of 'Professorial Discourse Analysis' as articulated in Villanueva's often-cited autobiography. Although the students did not actually acquaint themselves with their supervisor's writings as Villanueva did, they closely examined those completed dissertations to conceptualise what their supervisors expected to see in theirs. These included learning about macro-structures of the dissertations, making a decision on organisations of individual chapters, using appropriate citing practices, and considering the breadth and depth of the contents to be presented. Their practice could be considered as a way to gain authoritative information as effectively and quickly as possible to equip themselves with their supervisors' expectations.

Through their attentive reading of journal articles and completed dissertations serving as source texts, the students also developed a repertoire of language choices, particularly appropriate vocabulary choices, formulaic expressions and syntactic structures, to express their ideas more clearly and succinctly. Pat, for example, mentioned that, whilst reading the literature on her field, she made notes of words and expressions, as suggested by her supervisor, for future use. Several studies have documented L2 writers' borrowing linguistic elements from the literature to use in their own writing in the disciplines of science and technology (e.g. Hu, 2000; Li, 2007; Okamura, 2006; St. John, 1987). Okamura (2006), for example, has found in his research that, in writing research articles in English, five of

thirteen Japanese researchers (two junior and three established researchers) were keen to improve their English writing by copying useful phrases from research articles written by notable writers. Based on his interviews with postgraduate Chinese students in science and engineering in a Canadian University, Hu (2000) has reported that the students, to varying degrees, copied source texts as a survival strategy for writing their assignments. Some students in the present study are similar to students in Hu's (2000) study in that they also borrowed longer stretches of sentences, and may or may not appropriately paraphrase them, to use in their writing. Currie (1998) has optimistically argued that imitating and copying seem to be common among L2 writers who encounter discrepancies between their academic workloads and their developing linguistic and cognitive resources. Pennycook (1996) has also enunciated that learning a language, to a certain extent, involves a process of memorising and using others' words, whilst Campbell (1990) has observed that borrowing/copying is a writing strategy used by both L1 and L2 students when writing from source texts.

It is worth noting that the supervisors, although they were all from the same faculty and some were from the same master's programmes, held different perspectives on the students' reuse of source texts. The findings reveal that the supervisors' perspectives on this issue greatly impinged on how the students made use of source texts. Ken's, Joy's and Anne's supervisors made it explicit that lifting parts of source texts to use in dissertation writing was not acceptable, whilst Pat's and Wan's supervisors were more tolerant to their students' reuse of source texts without proper paraphrasing. Pat and Wan, therefore, appeared to borrow stretches of sentences to use in their writing without bothering to paraphrase them. Findings from previous studies are also in congruence with the findings of the present study. For example, Hu (2000), Currie (1998), Shaw and Crocker (1998), and Sutherland-Smith (2005) have reported that many course tutors paid more attention to the content when reading the students' works, rather than being concerned about the students' copying or borrowing of source texts. This aspect of textual reuse, as agreed upon by the students and their paired supervisors, supports Casanave's (1995, 20002) call for a more meaningful understanding of L2 writing practices by considering the more local, immediate, interactive factors that have influenced individual L2 writers when they write. To put it another way, it is the interaction between the students and the supervisors, rather than that of the students and the broader academic programmes, that affected ways in which the students developed their writing practices in completing their dissertations.

Given the findings of this study, I agree with De Voss and Rosati (2002) and Hu (2000) that imitating and borrowing source texts to use in academic writing by L2 writers seem to be not

only essential learning strategies in developing students' linguistic repertoire, but also survival strategies for assisting L2 writers to complete their writing task. As reported, Joy and Wan, for example, revisited several journal articles and dissertations to learn how to effectively use transitional words and phrases in their dissertation writing. Like Yuan in Li's (2007) study, the students in this study also analysed sentence structures and rhetorical argumentation from the literature and then tried to apply that knowledge in their own writing. It is, however, beyond the scope of this study to be able to examine to what extent the students improved such linguistic repertoire. What the findings of the present study can suggest is that learning from source texts and, on certain occasions, lifting texts without appropriate paraphrasing, portrays the undeniable reality of writing practices employed by these students. Since this study is exploratory in its nature, I am aware that it is premature to impose judgement or draw a definite conclusion on such textual copying/borrowing practices as either acceptable or unacceptable in dissertation writing in the context of this study. I am more inclined, with Currie (1998), to consider the students' textual practices as reported in this study as unfolding "an instance of the social purposes implicit in the construction of text" (p. 11).

7.4.2 The students' interactions with other members of research communities

The students' writing practices can be characterised by their evolving forms of mutual engagement in their communities of practice (Wenger, 1998, p. 95). Not only did they gain disciplinary knowledge, but they also gradually developed writing practices through their interactions with different people in their academic and professional communities. Given the findings, I agree with researchers, such as Casanave (1995, 2002, 2003), Krase (2007), Li (2007), Li and Flowerdew (2007), Tardy (2005), and Young and Miller (2004), in that academic writing is socially situated, constructed, and distributed among members of writers' communities of practice. This perspective of learning to write is different from the cognitive tradition in that it does not gloss over the socio-interactional milieu from which writers have developed certain literacy practices (Hyland, 2003, 2007; Long & Doughty; 2003; Young & Miller, 2004).

Empirical studies on L2 writers in EFL/ESL settings have revealed that writing dissertations/theses (e.g. Chang, 2006; Shaw, 1991; Tardy, 2005) and writing for scholarly publication (e.g. Cho, 2004; Li, 2007; Li & Flowerdew, 2007) involve different 'text shapers'. Li and Flowerdew (2007), for example, have reported that Chinese science doctoral students writing for international publications received English-language correction assistance from three major sources: supervisors, peers, and language professionals. These

studies have provided evidence that characterises the co-construction of text production. Most of them, nevertheless, emphasise the revising and polishing stages of text production and fall short to adequately address a potential tension when text shapers' assistance does not meet L2 writers' expectations. In my study, I have found that individual supervisors employed various strategies to accommodate and, on certain circumstances, refuse to accommodate, their students in terms of writing assistance. This resulted in some students perceiving unfairness when they felt that they received less language assistance from their supervisors than their peers did.

Based on her empirical research, Leki (2006) has found that lecturers at one North America university varied in terms of how they accommodated L2 students, which may result in the degree to which the students could achieve legitimate participation in their classes. In this study, the supervisors were found to be aware of the students' needs in preparing to write their dissertations. Aj Worapong and Aj Boonyarit, for example, provided their students with completed dissertations that they had supervised to serve as writing models. The other supervisors also encouraged their students to examine completed dissertations on the programmes in order to develop the knowledge of the dissertation genre. These instances show that the students and their supervisors co-constructed the students' writing knowledge. This kind of knowledge co-construction can assist the students in paving their path into participation of their academic communities, i.e. learning to write according to their academic communities' expectations (Leki, 2000; Krase, 2007).

Examples of higher degrees of accommodations made for the students can be seen from language assistance provided by Aj Patcharee (Pat's supervisor), Aj Worapong (Anne's supervisor), and Aj Nisakorn (Ken's supervisor). Aj Patcharee and Aj Nisakorn suggested that their students write certain parts of their drafts in Thai if they encountered difficulties in expressing their ideas in English. Both supervisors later collaboratively helped their students translate those parts into English. Aj Patcharee also held research group meetings on a regular basis, some of which were set aside for teaching her students reading and writing skills. At several stages of the writing process, Aj Nisakorn, when having tight schedules, referred Ken to doctoral students in the same lab for additional language assistance. Aj Worapong put tremendous effort into providing careful language feedback on Anne's multiple drafts. Both Aj Worapong and Aj Patcharee generously offered to carefully edit and polish their students' dissertations before submission. With satisfactory language feedback and assistance from their supervisors, these students perceived that they could, for example, "learn to write by comparing mistakes I made and corrections I was given" (Pat, Third interview), "…felt more confident to write by trial and error, then she [Aj Nisakorn] would

tell me if my writing was ok" (Ken, Third interview), and "memorise beautiful words or phrases often used by my supervisor to use later" (Anne, Third interview).

There were also instances of supervisors providing less language feedback or refusing to accommodate their students' language needs. For example, Aj Boonyarit, Joy's supervisor, believed that a supervisor should not put undue interventions on correcting the student's language. He believed that Joy's dissertation should represent her actual writing ability and that this could, in the long term, raise other tutors' awareness of writing problems encountered by other students in the programme. Aj Dhirayu also appeared to provide less language corrections on Wan's dissertation. On one level, he agreed with Aj Boonyarit that the students' dissertations should reveal the students' actual writing ability. He also felt that it was too ambitious to expect Wan, as well as other students on the programme, to produce the dissertation with the same high English language standard as those in Anglophone universities. On another level, Aj Boonyarit perceived that Wan should be more dependent on correcting and improving the English of her dissertation drafts. There was an obvious instance of Aj Boonyarit refusing to accommodate Wan's language needs at later stages of the writing process. According to Aj Boonyarit, he perceived that Wan did not pay adequate attention to his language corrections in certain previous drafts because, as he observed, Wan still made the same language mistakes in the subsequent drafts. With this perception, he later provided less language corrective feedback on Wan's drafts.

The discussion has thus far summarised the degrees and types of accommodation that the supervisors made for their students. It is important to note that differences in language feedback and assistance given to the students could cause certain tensions among the students. Joy and Wan, in particular, perceived that they were at a linguistic disadvantage compared to other students, whose works were carefully edited or extensively polished in terms of language use by their supervisors. Although they were confident about the content of their dissertations, they were uncertain if the quality of their written English would affect the assessment of their performance during the oral defence of their dissertation exams. As with the case of the supervisors' perceptions of language reuse by their students, as discussed in Sub-section 7.4.1, the supervisors' perceptions of their role and responsibility in providing language feedback and assistance clearly affected how the dissertations were composed.

Whilst the supervisors were perceived as a major source of linguistic assistance during the writing process, the students' interactions with other members of their local communities also contributed to the completion of their dissertations. For example, at certain stages of their writing, particularly during the Pre-Writing Preparation phase reported in Section 6.3,

the students shared their ideas with their peers about writing and helped one another to comment on writing outlines of individual chapters. Since Anne's research project was built upon Tim's completed master's dissertation, she discussed with Tim how to organise and write certain parts of her own dissertation. The students also learned from their seminar course tutors and doctoral students that, in order to ensure scientific credibility of their dissertations, they should cite articles from journals with high impact factors. Pat and Anne further judged the quality of the literature-based information according to journals often referred to by presenters in academic conferences. As preparation for their writing at later stages, the students also negotiated with the laboratory-based information. Like mature Thai scientists writing academic papers in English for publication reported by Pupipat (1998), the students in this study transformed the recorded data from their laboratory notebooks into a more systematic and reader-friendly form before starting to compose their dissertations. This emphasis on data processing concurs with Gosden's (1996) Japanese scientists, Li's (2007) Chinese doctoral student in chemistry, Shaw's (1991) non-native English-speaking doctoral students in science, and St. John's (1987) Spanish scientists. However, these previous studies, except for that of Li (2007), did not critically capture how their research participants managed the laboratory data to ensure its accuracy, and its breadth and depth before the data were reported in their writing. On one level, the students in this study are similar to Yuan in Li's (2007) study in that they learned how to evaluate the accuracy and adequacy of the laboratory-based data by consulting their supervisors and other members of their research groups. On another level, these students were more strategic than Yuan in manipulating their laboratory data. They prepared conference papers which were usually co-authored by their supervisors. The students viewed this as a way of prompting their supervisors to help check the accuracy of their data. After their paper presentation, they also used feedback given by the audience to reconsider the strengths and adequacies of their research data.

The students' writing experiences reported in this study add to our understanding of the more diverse and complex social practices that the novice writers engaged in. Their dissertation writing experiences reflect the nature of academic writing in that it is not individualistic but social (Canagarajah, 2002). That is, the students' writing knowledge was constructed through their multidimensional engagement with their local, immediate, interactive communities of practice (Casanave, 1995, 2002; Li, 2007). I should like to argue that, through the notion of communities of practice (Lave & Wenger, 1991; Wenger 1998), we can better conceptualise how L2 writers develop certain writing practices to negotiate the demands of academic writing, particularly for writing occurring outside the ESL/EFL classrooms where the students can seek writing assistance from different available resources.

7.4.3 The students' use of other coping strategies

In addition to receiving language assistance from different members of their academic communities through face-to-face interactions, the students also developed certain coping strategies to negotiate the linguistic demands of writing their dissertations. Two interrelated strategies are using L1 and subsequent translation, and seeking language suggestions from online communities.

Like Yuan, a Chinese doctoral student writing a scientific paper in English (Li, 2007), the students reported that using their L1 was useful in that it assisted them to maintain a good flow of thought whilst they were composing the drafts. Pat, Anne and Joy switched to L1 only when they could not figure out desired words or expressions in English. In general, they put every effort into composing their first drafts initially in English, paying more attention to the content of the drafts rather than grammar and language structures. By contrast, Ken and Wan reiterated that they were not confident about their writing. They could not express their ideas directly in English, particularly when they dealt with complicated concepts. This resulted in their choosing to write certain paragraphs entirely in Thai. Ken and Wan seemed to be comparable to some Thai scientists in Pupipat's (1998) study, who reported that they initially wrote certain paragraphs of their journal articles in Thai, before translating them into English at later stages, due to their limited English knowledge. Most of the Japanese doctoral students in Gosden's study (1996) also stated that they wrote their journal articles entirely in Japanese before translating them into English. Other studies (e.g. Woodall, 2002; Murphy & Roca de Larios, 2010) also find that using L1 during the process of writing in L2 is common even among advanced learners of English.

The use of L1 in writing was attributed not only to the students' language proficiency and confidence in writing in English, but also to their supervisors' suggestions, as can be seen from Pat and Ken's writing practices. Aj Patcharee advised that Pat write down her ideas in English, followed by their Thai versions in parentheses, when Pat encountered difficulties in expressing her ideas entirely in English. In so doing, Aj Patcharee could refer to the Thai versions included in the drafts and could help Pat improve her writing with ease. As for Ken, where he had difficulties in writing certain parts of his drafts in English, he opted to write them in Thai. Ken later had a meeting with his supervisor and they worked collaboratively to translate those parts into English. The use of L1 as suggested by both supervisors and their subsequent language assistance could be considered as a scaffolding strategy (Lantolf, 2000b). This kind of support was used particularly when the supervisors considered that writing and revising certain parts of the dissertations was beyond the level

that the students could do alone without the supervisors' writing interventions. I agree with an argument made by Murphy and Roca de Larios (2010) in that the students' making use of L1 to facilitate their writing process should be viewed as a site of multi-competence rather than deficit. As can be seen from the cases of Pat and Ken, when the students and their supervisors agreed upon the use of L1 in the process of their text production, the use of L1 was fruitful because it facilitated the processes of writing by the students and that of providing language feedback by their supervisors.

Apart from using their L1, the students also made use of other available resources to compensate for their limited English knowledge. It is interesting to find that the students were aware of the strengths and weaknesses of each resource and learned how to use them to complement each other. When the face-to-face language support from the supervisors and the university was limited, it appeared that the students could benefit from two key resources generated by advances in technology: web search engines and online communities. Wan, for example, said that she made use of a web search engine to check against expressions that she had written and consider alternative suggestions derived from the resulting links. As she pointed out: "…I felt like I was discussing my writing with someone…it [using the Google search] really helped me when I had no one to comment on or help correct my writing" (Wan, Second interview). The students' use of the Google search, as reported in this study, appears to support the suggestions made by Conroy (2008) and Guo and Zhang (2007) in that a web search engine can help L2 students to deal with uncertain words and phrases in English during their writing process. Stapleton and Radia (2010) have also argued that training L2 students how to effectively use new technological tools and online resources could have a significant effect on their writing improvement.

Of the five students, I found that Ken and Wan appeared to be more resourceful than the others in terms of their use of online resources. As they were members of two online communities of practice, English Group and Graduate Lounge, they could seek advice on English writing from both communities. However, they preferred to ask for suggestions from the Graduate Lounge community because they considered that its members, who were mostly doctoral students, could provide them with more trustworthy suggestions. It could be said that Ken and Joy perceived that the members from the Graduate Lounge community could serve as their "good brokers-[who] open new possibilities for meaning" (Wenger, 1998, p.109). In other words, they perceived that the members of the Graduate Lounge community could provide them with more reliable suggestions on writing that were applicable for their use in another community, a community of research students on their programmes.

Initially, Lave and Wenger (1991) and Wenger (1998) discussed learning as engagement in face-to-face activities. Later, Wenger *et al*. (2002) have expanded the concept of learning in communities of practices to cover engagement in online communities. From Ken's and Joy's experiences, it could be seen that their participation in the two online communities reflect the concept of learning, which is not restricted only to face-to-face interactions, as Wenger *et al*. (2002) have proposed.

7.5 Chapter Summary

This chapter has discussed the major findings of the study with reference to the theoretical framework, primarily drawing on the notions of communities of practice (Lave & Wenger, 1991; Wenger 1998) and imagined communities of practice and investment (Norton, 2000, 2001). The chapter has discussed the students' reasons behind their preference for choosing to write their dissertations in English on the grounds of their negotiation and shaping of their social identity, and linguistic investments in their imagined communities. In terms of the students' linguistic preparation for dissertation writing, the chapter has pointed out the discrepancies between the students' language needs and the actual provision of the institutional language support. The final section has discussed the students' writing practices during the dissertation writing-up stage, focusing on their use of source texts, their gaining of writing knowledge and practices from interactions with other members of their local, immediate communities, their use of L1, and their access to additional language assistance from online communities.

CHAPTER 8

CONCLUSIONS

8.1 Introduction

This chapter draws together the threads of the study. I first provide a summary of the study and then offer pedagogical implications for dissertation writing support. I also explicate potential limitations of the study as well as address different research strategies that were used to mitigate them. This will be followed by a discussion of challenging directions and recommendations for further research.

8.2 Summary of the Study

This study reports on five Thai students' experiences in writing their master's dissertations in the disciplines of science at a Thai university. These students studied on three master's degree programmes where Thai is used as a medium of instruction. However, after completing their coursework, they wrote their dissertations in English. The study was situated in an interpretive, qualitative case study design, implementing a theoretical framework drawing on the notions of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001). The main data were collected from the students by means of questionnaires, semi-structured interviews, and collaborative conversations. They were also augmented by data obtained from semi-structured interviews and collaborative conversations with the students' paired supervisors, and paper-based and web-based documents produced by the university. Guided by the theoretical framework and driven by the data collected, the study captured the students' dissertation writing experiences by inquiring into three interconnected aspects: the students' reasons behind their preference for choosing to write their dissertations in English, their linguistic preparation for dissertation writing, and their negotiation of the demands of writing their dissertations during the writing-up stage.

The findings reveal that the students preferred to write their dissertations in English, rather than in Thai, perceiving it as a way of optimising their opportunities for being academically accepted by other members of their programmes of studies. They also perceived writing a

dissertation in English as an effective means of improving their English knowledge that would result in helping them achieve their future academic and professional goals. The students' perceptions, therefore, reflect their negotiation and shaping of social identities, and their investment in communities of practice (Norton, 2000, 2001; Pavlenko & Norton, 2007).

In order to prepare themselves to deal with the perceived linguistic demands of writing a dissertation, the students reported having attended English courses at the university's English Language Teaching Unit (ELTU), and some also made use of resources and services provided by the Self-Access Language Learning Centre (SALLC) and the Writing Centre (WC). Despite their high motivation for linguistic preparation, it appeared that, to a certain extent, their preparation was not very successful. This was mainly attributed to the ELTU's lack of courses geared specifically towards academic/dissertation writing, unfavourable social and classroom conditions, the SALLC's lack of publicising its services, the students' unfamiliarity with autonomous learning, and time constraints imposed by the students' tight research schedules. These challenges could well help explain why students with high motivation for linguistic preparation were unsuccessful in their linguistic investment, or may not want to invest (Norton, 2001) in learning English with resources available on campus.

The students' negotiation with the demands of writing their dissertations during the writing-up stage reflects their multidimensional engagement in different literate activities of their communities of practice. They interacted with written artefacts, including their conference papers, completed dissertations on the programmes, and journal articles, in order to develop a language repertoire and basic genre knowledge necessary for their writing. Through their face-to-face interactions with other members of their academic and professional communities, the students gleaned disciplinary knowledge, a better understanding of the tacit expectations of their programmes, and developed various useful writing practices. They relied primarily on their supervisors as sources of writing support, although not all of them could receive satisfactory writing assistance from their supervisors. The students also received feedback and suggestions beneficial for improving their dissertations from other individuals, such as their friends on the same programmes, other members of the research groups, and audiences attending their conference presentations. To facilitate their writing process, the students also developed other strategies. For example, they consulted different types of dictionaries, switched to writing in Thai on certain circumstances, used an online search engine to deal with word choices and uncertain expressions, and asked for language advice from members of their online communities. The students' writing experiences during

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the writing-up stage reflect the nature of academic writing in natural settings in that it involves complex social practices, constructed through writers' interactions with available written artefacts, or a shared repertoire (Wenger, 1998), and different text shapers (Li & Flowerdew, 2007), particularly those from their local, immediate communities of practice.

By applying the notions of communities of practice (Lave & Wenger, 1991, Wenger, 1998) and imagined communities and investment (Norton, 2000, 2001), the students were considered to be less experienced scientists and L2 writers of their communities of practice. This was reflected by, for example, the asymmetric relationships between the students and their supervisors, and between the students and their EAP tutors. Through their engagement and investment in different academic activities, particularly through academic mentorship provided by their supervisors, the students gradually earned more experiences in terms of scientific knowledge and writing knowledge that characterise their communities.

8.3 Pedagogical Implications of the Study

Hyland (2002b, 2006) has pedagogically argued that EAP is responsible for equipping students with literacy practices appropriate to the purposes and understandings of their academic communities of practice. Should EAP tutors want to help prepare science students to write their dissertations, they have to acquaint themselves with writing and literacy practices expected by the students' programmes of studies. A question raised, then, is how EAP tutors can construct such knowledge where they do not actually engage in literate activities of those academic programmes. I should like to propose that there are three effective ways to achieve this goal. A straightforward but seemingly daunting way is that EAP tutors should conduct more research on discipline-specific writing in their educational establishment, as I will discuss in detail in Section 8.5. Another practical means is that EAP tutors should discuss issues of academic literacy practices in detail with science tutors and postgraduate students. A less demanding alternative, Matsuda (1999) has suggested, is that EAP tutors can glean such knowledge through an exposure of the literature on discipline-specific writing in L2, paying particular emphasis on scientific writing. However, to ensure success in providing effective dissertation writing support to students, I should like to suggest that any pedagogical changes and initiatives to make should be recognised as a mutual responsibility of both the ELTU staff and science tutors. Given the findings of this study, I provide pedagogical suggestions to the ELTU staff by encouraging them to integrate the three methods of knowledge construction mentioned above. I also make further recommendations for science tutors to consider various viable supervision practices.

8.3.1 Reconsidering the availability of language support

Given the findings reported in Chapters 5 and 6, it is apparent that there were discrepancies between the students' needs in writing support and the university's actual provision of such support. The ELTU should, therefore, offer courses geared towards academic/dissertation writing to postgraduate students in science. If this cannot be made possible due to certain constraints, as discussed in Sub-section 7.3.1, Chapter 7, the existing courses should be revised to foster science students' needs in academic writing. Either to design new courses or to revise the existing ones, EAP tutors must be well aware of both the students' language needs and learning rights (Benesch, 2001). As evident from Joy's experience of attending a class at the ELTU (see Sub-section 5.3.1, Chapter 5), students may not want to invest in their learning in EAP classes when course content is considered irrelevant to their future use in their imagined communities of practice (Norton, 2000, 2001). To make new or revised EAP courses as relevant and supportive as possible, EAP course developers/tutors are encouraged to discuss academic literacy practices of science postgraduate programmes with several dissertation supervisors and students. This would, as Hyland (2006) has suggested, facilitate a two-way interaction between EAP tutors and science supervisors to ensure that their students' concerns are clearly articulated. EAP tutors are also encouraged to keep pace with academic writing research and other relevant scholarly publication by other members of TEFL/TESOL communities. This would help them gain viable theoretical and practical perspectives in developing their own courses, and then appropriately delivering them, to meet the expectations of both students and science tutors.

Apart from formal writing courses, the ELTU should make fullest use of resources available at the SALLC. Since many postgraduate students did not complete their undergraduate degrees at Central Bangkok University, the ELTU should put more effort into publicising its services to these students, possibly through the postgraduate induction day and a master's programme's co-ordinator. From Pat's and Wan's experiences, I believe that had they known about the SALLC, they would have gained tremendous advantages by visiting it. The SALLC, in general, can be considered as the most accessible, practical and flexible language learning resource for postgraduate students, particularly for those who have tight schedules in conducting their laboratory experiments and thus cannot attend regular English classes. Unfortunately, some students in this study did not recognise the usefulness of the SALLC due to their unfamiliarity with more autonomous learning. The SALLC, therefore, should provide an orientation session to new postgraduate students to teach them how to effectively use the available resources and services. There should also be drop-in consultation sessions to provide students with further suggestions.

Writing workshops and consultancies organised by the Writing Centre (WC), a sub-unit of the SALLC, are promising kinds of support for students, as evident from Joy's experience. However, the findings also reveal that the previous administration of these services, coupled with the students' busy academic activities on their study programmes, did not fully allow the students to draw a clash-free timetable to receive services from the WC. The WC staff should, therefore, consider adding other alternative modes of providing services to postgraduate students; for instance, creating online materials and providing online consultancies. The findings also show that, during their composing process, the students made use of various strategies to compensate for their limited English proficiency and lack of face-to-face language assistance. These included using different types of dictionaries, using the Google search, and asking for language help from online communities (see Sub-section 6.3.2.2). However, not all students may know how to use the resources and discover effective writing strategies on their own (Fujioka, 2007). Thus, the WC tutors, as well as EAP tutors, should consider holding training sessions or incorporating classroom activities that introduce students to the use of different useful writing strategies. Each training session by the WC tutor can also serve as a forum for students and the tutor to share their experiences of using different writing strategies and discuss the advantages and disadvantages of using each of them.

8.3.2 Redefining the role of EAP tutors

The findings of this study suggest that EAP tutors should take a new role as academic brokers or mediators of literacy (Curry & Lillis, 2004; Benesch, 2001). As academic brokers, EAP tutors have a role to play in helping their students to conceptualise dissertation writing practices as socially situated and constructed activities, influenced by their local, immediate context of writing. To apply this concept, EAP tutors should be able to assist their students not only in mastering linguistic competence but also in raising their awareness of academic literacy expectations intrinsic to their programmes of studies. This would help students recognise ways of gaining legitimate peripheral participation in their academic communities of practice, particularly to deal with the expectations of their supervisors.

As academic brokers, EAP tutors may invite 'disciplinary insiders' (Curry & Lillis, 2004), i.e. science tutors, to visit their EAP classes. This will provide students with an opportunity to discuss with guest speakers their supervision experiences and expectations of their students. It is also worthwhile to invite current and previous master's students from different programmes in science to EAP classes to talk about their own dissertation writing experiences. As mediators, EAP tutors can raise issues concerning, for example, ways in

which these students improve their English, their use of available language support provided by the university, challenges they encounter in writing particular chapters, their use of coping strategies in dealing with the linguistic demands of writing, and ways in which they negotiate writing assistance with their supervisors. By using these activities, EAP tutors adopt a role of the 'guide by the side'. EAP classes, therefore, can be an ideal forum to encourage students to critically discuss and recognise the contested nature of dissertation writing and supervision process. This would result in assisting students in making smooth transitions into their postgraduate programmes.

As Leki (2006) has suggested, using published case studies reported by TESOL professionals in EAP classes can also assist students in conceptualising situations that they may encounter when they are working on their dissertations. Several articles on L2 academic writing authored by members of TESOL communities can be selectively used as compelling course readings for EAP classes. For example, a published case study by Okamura (2006), *Two Types of Strategies Used by Japanese Scientists, When Writing Research Articles in English*, is easy to read, even by L2 students who do not come from the field of TESOL. EAP tutors can bring this article into their classes and have students discuss different issues surrounding areas of writing challenges that these Japanese scientists encounter, their effort in mastering their English, and their writing practices used in composing their research articles. Another interesting article is by Flowerdew and Li (2007), *Language Re-use among Chinese Apprentice Scientists Writing for Publication*. This paper can be used as a legitimate source of knowledge to trigger students to critically discuss controversial issues concerning the use of sources, texts and plagiarism in academic writing in L2, the challenges that were also encountered by the students of the present study. An example of additional learning activities following the discussion of this paper can be engaging students in doing different types of paraphrasing exercises. Using published case studies in EAP classes, if carefully selected and graded to suit the level of students' language proficiency, would "help EAP students make better sense of their own lived experience" (Leki, 2006, p. 149).

EAP tutors should also encourage their students to see themselves as active participants in the process of co-construction of knowledge in their EAP classes (Morita, 2004). One meaningful learning activity is to urge students to be 'ethnographers' of their own communities of practice (Johns, 1997; Norton, 2000). In so doing, tutors can design tasks to prompt students to act as researchers to explore how dissertations on their programmes are produced. I should like to suggest that the tutors create learning activities by having students

explore issues surrounding dissertation writing experiences raised by the present study. For instance, the students may be assigned to work in a small group to:

- Survey language support available on campus
- Interview students who are writing, or preparing to write, their dissertations, concerning pros and cons in writing dissertations in English, their linguistic preparation to cope with the demands of dissertation writing, their use of writing practices/coping strategies, and their ways of learning about their supervisors' expectations
- Interview science tutors about what they expect from students during the process of dissertation writing and supervision
- Collect sample dissertations on their programmes and conduct a mini-analysis of major features (e.g. macro-structure, chapter and heading titling, reference systems, use of graphics and formulae), count and tabulate them
- Compare their results with those from other groups and discuss them in the EAP class.

As evident from the findings of this study, that some students could not attend EAP classes due to time constraints, the ELTU may occasionally hold short training sessions focusing on raising students' awareness of 'being an ethnographer' of their own academic communities. Hand-outs should also be prepared and made available in the SALLC for students to use as self-study materials, which will be particularly beneficial for those who cannot attend the sessions.

The sample activities proposed, with EAP supervisors serving as academic brokers, can encourage the students to inquire into the literacy practices of more experienced members of their academic communities. This would result in the students raising an awareness of their current literate lives and other literacy practices that they need to acquire. The suggested activities also encourage the students to reposition themselves as active meaning-makers (van Lier, 2004) in directing their engagement with EAP class activities and literate activities on their programmes.

8.3.3 Initiating an open dialogue between students and supervisors

The findings of this study call on dissertation supervisors to reinvent themselves in ways which facilitate dialogic learning during the supervision process. Although supervisors academically act as 'knowledge providers' in a master-apprentice relationship with their students (Wenger, 1998; Krase, 2007), they should also adopt another role as co-learners by

creating more collaborative learning settings (Belcher, 1994). This would result in dissertation supervisors better conceptualising the gap between what their students can and cannot do, and mismatches between students' and supervisors' expectations of the supervision process.

On the basis of the students' profiles discussed in Chapter 4, it can be seen that most of them had limited English language proficiency, as evident from their scores on the ELP test. At the early stages of dissertation supervision, some students planned to write their dissertations in Thai, but later switched to choosing to write them in English. Given these findings, I should like to suggest that, once embarking on the supervisory relationship, dissertation supervisors should ask their students to 'tell their own stories': their English language proficiency, academic and professional goals, research interests, perceptions of the role of postgraduate students, and expectations of the supervision process. Initiating an open dialogue with students on such issues from the very early stages of supervision would help supervisors to effectively recognise their students' needs for English language preparation, their negotiation of social identity on their programmes, and their imagined communities. Having these pieces of information, dissertation supervisors can co-ordinate the various activities to foster growth of individual students. For example, they can encourage their students to think about their 'imagined communities' and consider ways of 'investment' in order to earn 'capital resources' necessary for entering those communities. Rather than letting students delay linguistic preparation for their dissertation writing until they arrive at the writing-up stage, as some of the students in this study did, supervisors should urge them to improve their English as soon as possible, for example, by attending appropriate English classes. Dissertation supervisors should also act as language tutors. For example, they can raise their students' awareness of the reading-writing relationship. They can guide students to learn how to write by critically observing linguistic features of scientific prose when reading the literature on their field, as Aj Patcharee suggested that Pat do. Supervisors can also encourage their students to write conference papers, an on-the-job writing practice, as the students in this study also did.

A lack of good practice in supervisory dialogues may bring about certain tensions between students and supervisors (Krase, 2007), as evident from Anne and Wan's experiences of dealing with feedback given by their supervisors (see Sub-section 6.3.3, Chapter 6). Anne appeared to grow increasingly frustrated with her supervisor's demands of extensive revisions of her writing drafts. Wan was dissatisfied with the fact that her supervisor provided her with less language corrections on certain drafts. Anne and Wan's experiences of such tensions were attributed to their lack of good face-to-face discussions on given

feedback with their supervisors. Reflecting on these two students' experiences, it is clear that more supervisory dialogues can serve as facilitative strategies that enable both students and supervisors to negotiate mismatches in their expectations (Wisker *et al*., 2003). If supervisors are incumbent upon legitimising their students' participation in their communities of practice (Belcher, 1994; Dysthe, 2002; Krase, 2007), it is through initiating more open dialogues with students, I should like to suggest, that would assist both students and supervisors in co-constructing the effective supervision process.

8.3.4 Initiating more collegial discussions among science tutors

The findings of this study reveal that supervision practices were private and unarticulated. Dysthe (2002) has commented that postgraduate supervision remains, to a larger degree, individual supervisors' private concern even though collegial discussions are acknowledged as a crucial aspect of academic communities of practice. I should like to suggest that, to provide effective supervision to students, more collegial discussions among dissertation supervisors concerning their supervision experiences would be tremendously advantageous. With more engagement in collegial discussions, whether they be formal or casual, dissertation supervisors can draw on one another's experience, placing critical emphasis on both the supervision process in general and strategies in dealing with students' writing problems. This kind of discussion would help individual supervisors to reflect on their own supervision practices. Simultaneously, they can learn more about other supervision practices from their colleagues, some of which may be useful in improving their own supervision. When encountering any supervision problems, they may resort to their colleagues, particularly those with more supervision experiences, for suggestions. Strauss *et al*. (2003) have suggested that "There should be no shame in asking for help, and supervisory experiences – both the challenges and the success – should be shared" (p. 12).

The findings of this study reveal that Aj Patcharee and Aj Worapong formed research groups and held regular group meetings for their students. This helped increase a more interactive learning environment, peer scaffolding, and dialogic learning for their students (Wilson, 2008). As a result, there was greater interaction among group members, resulting in the students receiving more feedback and support from other members and supervisors, who were able to regularly monitor their students' academic progress. Aj Nisakorn sought assistance from doctoral students under her supervision in providing additional language consultancies to Ken. These examples of supervision practices, if shared with other supervisors, would inspire others to develop viable ideas of implementing appropriate supervision practices.

Collegial discussions are also crucial in helping mitigate tensions and potential conflicts between the students and their supervisors, and among the supervisors themselves. Critical attention should be devoted to, for example, issues surrounding the level of language interventions provided by supervisors and the supervisors' perceptions of reuse/borrowing of source texts in students' dissertations. As the findings of this study suggest, some students perceived that it was 'unfair' to them to receive less language assistance from their supervisors, particularly in terms of language editing of the final draft of the dissertation, compared to their counterparts who were given more language help from their supervisors. Some students also felt that they had to spend more time struggling with paraphrasing source texts, whilst other students were allowed by their supervisors to simply borrow blocks of texts to reuse in their dissertations without proper paraphrasing. Some supervisors believed that the students' dissertations should reveal 'the students' actual writing ability', whilst others extensively rewrote and polished dissertations for their students. These issues are difficult to resolve by a particular supervisor in isolation. Therefore, there should be formal collegial discussions and dialogues collaboratively held by different science programmes to discuss the issues. This would help formulate fair practices and guidelines advising supervisors of their assumed responsibilities in terms of, as Strauss *et al*. (2003) have suggested, "what they should and should not be doing" (p. 12).

8.4 Limitations of the Study

Throughout the process of conducting this research, I have been well aware of potential limitations intrinsic to the research design and methodology. This section identifies five major areas of limitations of this research. Although they could not be eliminated primarily due to the accessibility of certain data sources and ethical concerns, different research strategies were implemented to mitigate them.

Firstly, as discussed in Sections 3.4 and 3.5, Chapter 3, the use of focus group discussion among the students was excluded from the original research design. Had focus group discussion been carried out, the research data would have been more compelling. Despite this area of limitations, the data derived from the students' semi-structured interviews were later augmented through the use of two triangulation methods: methodological triangulation (cross-checking the semi-structured interview data with those collected by means of questionnaires and collaborative conversations), and data-source triangulation (cross-checking the semi-structured interview data with those collected from their supervisors, and relevant documents produced by the university).

Secondly, the data collected may be affected by the selectivity of the student participants. The students were drawn only from a cohort of MSc students who could be considered as 'successful students' because all of them could complete their dissertations and finally graduated. The data received from them, therefore, were restricted to the perspectives or voices of these successful students. In each academic year, however, there are also some MSc students in the same faculty who are unable to finish writing up their dissertations within the maximum registration period of four years. These students are required to apply for a further extension of their registration whilst some may be terminated from the programmes. I should acknowledge that the findings of this study could not provide multiple perspectives of dissertation writing experiences as those that incorporate data from 'less successful students.'

Thirdly, I have also been well aware that there may be a potential limitation pertaining to certain aspects of the interview data obtained from both the students and their supervisors. This area of limitations could be attributed to the students' awareness of the socio-academic relationships between them and their paired supervisors, and the socio-political aspect of graduate school (Casanave, 2003). Even though I had made every effort to assure the participants of the confidentiality of the data, I later learned that both the students and the supervisors, to a certain degree, tended to temper comments on each other. On certain occasions, even Joy and Wan, who reported having received inadequate language assistance from their supervisors, seemed to avoid addressing and discussing their dissatisfaction concerning their supervisors' language support. I have considered that this phenomenon is rather common, and possibly encountered by several qualitative researchers, when required data are concerned with sensitive issues that directly touch upon the research participants' personal life. For example, in considering the students in this research, it is possible that they tempered certain comments on their supervisors due to their awareness of their status as students and, therefore, less powerful beings in an academic setting. During the process of the data collection, the students were still working with their supervisors. Many of them also considered pursuing their doctoral studies in the same faculty, and were potentially to be assigned to carry on their doctoral works under the same supervisors. This instance may provide a possible account for why the students sometimes avoided mentioning certain aspects of their academic literacy experiences.

The fourth area of limitations concerns the frequency of access to the students. As this study explores L2 writing in its natural academic settings, there appears to be more challenges, compared to research on academic writing in ESL/EFL classrooms, in approaching research participants. Even though I had planned to have more frequent sit-down interviews with the

students and the supervisors, I found that the plan was hindered by their tight schedules. On one level, I wanted to have as many interviews with them as possible. On another level, I bore in mind ethical considerations concerning not becoming too intrusive in their academic schedules and personal life. During the writing-up stage, some students were pressed for time, not only with writing and revising multiple drafts, but also with double-checking some lab results and preparing for their further education. The supervisors were also busy with working with many students at both master's and doctoral levels. My decision to have three interviews with the students on three phases of their writing process, and one interview with their supervisors, as discussed in Section 3.5, Chapter 3, was proved to be an appropriate alternative. The use of collaborative conversation, as discussed in Sub-section 3.5.2, Chapter 3, was also found to be an effective means in gaining more frequent access to the research participants. In negotiating access to the participants, as I have discussed, which was also agreed upon by the participants, I could collect data that reflected the whole process of the students' dissertation writing. I could also ensure that I achieved my data collection without too much intrusion into the participants' tight schedules.

Finally, it is important to note that this study was exploratory in its nature, placing emphasis on the students' overall dissertation writing experiences. I have realised that writing a particular chapter of a dissertation may be more difficult than writing another chapter, and writing the first draft of a given chapter may seemingly pose more challenges than revising its subsequent drafts. In this study, the students' writing experiences were not reported on the chapter-by-chapter basis, but as a coherent whole within the confines of the purposes of the research, the timeframe for data collection, and the accessibility of the data sources. The findings of this research, however, could well provide a comprehensive overview of the students' dissertation writing experiences. They also suggest the effective use of an alternative theoretical and methodological framework as a springboard for me and other researchers to further investigate dissertation writing experiences in more detail.

8.5 Directions and Recommendations for Further Research

The theoretical and methodological frameworks of this study can serve as a point of departure for further situated explorations of discipline-specific writing practices in natural settings. The following are challenging directions and recommendations for further studies.

Firstly, replicate studies at the same research site and other academic settings can yield additional fruitful findings to our understanding of academic writing in a second language. Researchers should take into consideration the areas of limitations, as I have discussed in the preceding section, in order to avoid pitfalls in designing their studies. Let us take a

further replicate study of postgraduate science students' dissertation writing experiences as an example. Researchers who are also EAP tutors at a given research site can potentially have easier access to data sources through personal social networks, and academic collaborations between their home EAP unit and postgraduate programmes in science. Another worthwhile and more challenging research strategy is to conduct collaborative research by an EAP tutor and a science tutor. This research collaboration would provide them with ample opportunities in conducting more ethnographic-oriented and longitudinal research, resulting in their gaining a more comprehensive understanding of students' writing experiences. Replicate studies can also be extended to dissertation/thesis writing in other disciplines, where students on Thai-medium programmes are encouraged to write their dissertations in English, a growing trend of master's and doctoral studies in certain universities in Thailand.

Secondly, given the exploratory nature of this study, it would be useful to further investigate those issues that have been raised in the study but have not yet been probed in detail due to time and logistical constraints. Further research can narrow down its scope to a specific issue of students' writing practices; for instance, writing a particular chapter, use of source texts and citation practices, student-supervisor negotiation of language feedback, between-draft revision practices, and use of online resources as an aid in writing. One particularly interesting research topic is how a student and a supervisor, as in the case of Pat and that of Ken, collaboratively work on Thai-English translation of dissertation drafts (see Sub-section 6.3.2.1, Chapter 6). Researchers can also address a specific area of institutional expectations of students' dissertation writing; for example, supervisors' attitudes towards the quality of English in students' dissertations, and supervisors' perceptions of types and degrees of language interventions to be provided to students. In line with the pedagogical implications I have discussed in Sub-section 8.3.2, further investigations may focus on issues relating to roles of EAP courses, EAP tutors, and the SALLC in preparing students to meet the demands of dissertation writing.

Another fruitful line of inquiry is to focus more on practices and challenges during the supervision process from supervisors' perspectives. In particular, researchers may examine supervisors' confidence and perceived challenges in giving linguistic feedback to their students, as Aj Nisakorn experienced (see Sub-section 4.4.3, Chapter 4). Findings gained from this line of research would shed light on how EAP tutors could work in collaboration with supervisors in providing effective support to students.

Finally, the proposed theoretical and methodological frameworks of this study can also be applied to other situated, interpretive studies that investigate L2 writing outside EFL/ESL classrooms: for example, writing course assignments, writing research proposals, writing conference papers, and writing for scholarly publication. I should also like to suggest that, to pursue our interest in students' discipline-specific writing experiences, further research does not have to limit itself to the theoretical and methodological frameworks I have suggested in this study. The implementation of the frameworks of this study, as I have previously mentioned, serves as an effective alternative to research on dissertation writing in L2. More studies with different theoretical frameworks, situating in either an interpretive or a positivist paradigm, would unfold other perspectives of dissertation and discipline-specific writing. Simply put, findings from this study, augmented by those generated by researchers with different epistemological and ontological stances, would help bridge the niche in the literature on academic writing in a second language. As Leki (2000), Li & Casanave (2005) and Matsuda & Silva (2005) concur, to contribute to the existing body of scholarship in academic literacy, particularly writing in L2, findings from studies applying different theoretical and methodological perspectives and conducted in a variety of instructional and disciplinary settings are required.

8.6 Concluding Remarks

This thesis is a stepping-stone towards a situated understanding of the experiences of postgraduate science students writing their dissertations in English in a Thai-medium university. At the early stages of this research preparation, I negotiated theoretical and methodological perspectives of research on discipline-specific writing in a second language. At later stages, I made a great effort in collecting data from different sources, some of which, unfortunately, could not be obtained. The research process was more complicated when it came to data analysis and discussion of findings. The students' writing experiences were finally selectively presented, within the scope of the previously chosen theoretical and methodological frameworks, in the form of a written report. My articulation of the research process and product, particularly that resonating with the potential limitations of the study, reflects a behind-the-scenes process of how my understanding of the students' writing experiences has been constructed and constrained. In hindsight, not only has this thesis yielded insights into students' writing experiences, but it has also offered a glimpse of the process of negotiating and constructing knowledge in the terrain of research on second language writing. The following scholarly postulation can well recapitulate what this study represents:

Knowledge is not simply 'found' or 'revealed', but constructed and negotiated by researchers who interact with philosophical assumptions, established knowledge, and various forms of data.

(Matsuda & Silva, 2005, p. xiii)

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Appendix 1

Student Background Questionnaire

(Translated from the Thai version)

Please answer the following questions.

1. Name: _____

2. Age: _____

3. What programme are you in? _____

4. How many years did you study English in school before receiving a high school certificate? _____ years

5. Where did you do your undergraduate studies?

   _____

6. What English courses did you attend as part of your undergraduate programme?
   1. _____ hours/week ___
   2. _____ hours/week ___
   3. _____ hours/week ___
   4. _____ hours/week ___

7. What English courses offered by the ELTU (The University's English Language Teaching Unit) have you attended since you started your master's degree?
   1. _____ hours/week ____
   2. _____ hours/week ____
   3. _____ hours/week ____
   4. _____ hours/week ____

_____

Please note that the respondent's name will not be revealed. It will be used only for filing the information to be provided. A pseudonym will be assigned to each respondent when the information is reported in the study.

8. Have you attended any writing tutorials/workshops held by the Writing Centre since you started your master's degree? _____

If yes, what are they?

1. _____

2. _____

3. _____

4. _____

9. Have you visited or used any resources from the Self-Access Language Learning Centre since you started your master's degree? _____

10. Have you attended any English classes in a private language school since you started your master's degree? _____

If yes, what are they?

1. _____

2. _____

3. _____

4. _____

11. What scores did you get for the following tests? (Please identify where   applicable.)

    1. ELP (The University's English Language Proficiency Test): _____

      Date taken: _____

    2. TOEFL (Test of English as a Foreign Language): _____

      Date taken: _____

    3. IELTS (International English Language Testing System): _____

      Date taken: _____

    4. Other tests (Please specify): _____

      Date taken: _____

12. Did you have any work experience before doing your master's degree? _____
    If yes, please describe it briefly.

    _____
    _____
    _____
    _____
    _____
    _____

13. When did you start your master's degree?

    _____

14. When did you start writing up your dissertation?

    _____

15. When do you expect to submit your dissertation?

    _____

16. Please describe your major challenges/experiences with the use of English during your coursework?

    _____
    _____
    _____
    _____
    _____

17. Please describe your major challenges/experiences encountered with writing your dissertation in English?

    _____
    _____
    _____
    _____
    _____

18. What are your academic and professional plans after graduation?

_____

_____

_____

_____

_____

Appendix 2

Student Participant Interview Schedules

(Translated from the Thai version)

Student interview I: **Sample questions**

A: Students' academic writing background and literacy experiences in an MSc programme

1. Please tell me about your English learning experiences before entering an MSc programme? (For example, courses attended at school/university/private school; attitudes towards learning English; challenges encountered and coping strategies; student's perception of his/her own English proficiency)

2. Have you attended any English classes for graduate students offered by the ELTU? Why or why not?

3. What impressions do you have about the role of English in your programme of studies?

4. During your coursework, did you experience any difficulties in adjusting to academic life in your programme? (For example, academic/disciplinary expectations; ways of working with peers and tutors; challenges of the use of English in the programme of studies)

5. What kinds of writing did you do in your programme (apart from writing a dissertation)? Were you required to write them in Thai or English?

6. What difficulties do you have in general when you write in English?

7. When you were required to write something as part of your studies for the first time (whether in Thai or in English) in your field but you did not know how to do it, how did you find out what to do?

8. What is it like to be a graduate student in your programme? (e.g. admission to the programme; teaching and learning activities during the coursework; preparation for a laboratory experiment and dissertation writing; the way you interact with your course tutor, classmates, and research supervisor)

9. Apart from academic activities in your programme, have you engaged in any other academic activities outside the university? (For example, attending a workshop; participating in a conference as an attendee or presenter)

B: Student participants' preparation for dissertation writing and perceptions of writing challenges

10. You were required to conduct a supervised research project after you had finished your coursework. How did you identify your supervisor?

11. How did you choose your research topic?

12. How did you prepare your research proposal? Did you prepare it in Thai or English?

13. When did you start writing your dissertation? What stage are you at now in your dissertation writing?

14. Why did you choose to write your dissertation in English?

15. How did you prepare yourself to write your dissertation in English? (For example, attending any language or writing classes and workshops; consulting books on academic writing)

16. Have you had any concerns or difficulties so far in preparing and writing your dissertation in general? (For example, language problems, access to/availability of resources, technical problems in running a lab experiment, support and guidance)

17. If you experienced any difficulties, how did you deal with them?

18. Please tell me how you wrote this *(a particular part/chapter)*?

C: Student participants' perceptions of the supervision process

19. What kind of support or guidance have you had from your supervisor during the supervision process? Were you happy with it?

20. How would you describe your relationship with your supervisor?

21. Have you received any help from others apart from your supervisor?

22. What impressions do you have about the supervision process?

Student interview II: Sample questions

A: Students' writing practices and perceptions of writing challenges

1. Please tell me what you have done/written since our first interview.

2. Which parts/chapters of your dissertation have you finished so far? Why did you choose to write those parts/chapters before the others?

3. In general, what did you do before/during/after writing each draft?

4. How did you prepare and then write this *(a particular part / chapter)*?

5. Have you experienced any writing problems/challenges when preparing and writing this *(a particular part / chapter)*? If any, how did you deal with them?

6. How many drafts have you written/revised for each part/chapter?

7. Do you think that the ways you write for your dissertation are similar to or different from those of writing for your English classes? How?

8. Do you think your previous writing/English learning experiences help you in writing your dissertation? If so, how?

9. What kind of feedback did you get for your drafts? Did this meet your expectation?

10. How did you revise your draft when you received feedback from your supervisor?

11. Apart from your supervisor, did you discuss your work with or seek help from others? What kind of things did you discuss? What kind of help did you receive?

12. Did you get any language assistance in particular from others? If any, how useful was it?

B: Student participants' perceptions of the supervision process

13. Please tell me about the supervision process? (How do you work with your supervisor?)

14. What do you think are your role and your supervisor's role in the supervision process?

15. When working on your lab experiment and dissertation with your supervisor, did her/his role meet your expectation?

16. Have you had any problems or conflict with your supervisors? If any, how did you sort them out?

17. How would you describe your relationship with your supervisor and other members in your research community?

18. Please describe your impressions of the supervision process during the past month.

Student interview III: Sample questions

A: Students' writing practices and perceptions of writing challenges

1. Please tell me what parts/chapters have you written up or revised since our last interview?

2. How did you write/revise this *(a particular part/chapter)*?

3. Did you have any difficulties in writing/revising this (*a particular part/chapter*)? If any, how did you deal with them?

4. In the case that you encountered any difficulties in writing/revising this (*a particular part/chapter*), were they the same as those you experienced when you wrote/revised other parts/chapters?

5. Have your experiences in writing and revising previous parts/chapters impacted on your writing process of subsequent parts/chapters?

6. What kinds of help and feedback on this (*a particular part/chapter*) did you get from your supervisor?

7. Was the way your supervisor gave the feedback to this (*a particular part/chapter*) the same or different from the way she/he did with previous parts/chapters?

8. Apart from your supervisor, did you receive help or suggestions from others in the process of writing/revising these drafts?

9. Do you think your writing process (the ways you prepared/wrote/revise/edit your draft) of these last drafts is the same as or different from that of the previous drafts?

B: Student participants' perceptions of the supervision process

10. Did the kinds of help or guidance you received from your supervisor meet your expectation during these last 5-6 weeks? If not so, did you negotiate or try to negotiate with your supervisor? How?

11. How would you describe your relationship with your supervisor during these last 5-6 weeks of your dissertation supervision?

C: Student participants' reflections on the whole process of dissertation supervision

12. What impressions do you have about the whole process of your dissertation writing?

13. What impressions do you have about the whole process of supervision?

14. How do you describe your relationship with your supervisor? Has the relationship changed over the period of working with her/him?

15. How do you perceive yourself as a scientist and dissertation writer?

Appendix 3

Supervisor Participant Interview Schedules

(Translated from the Thai version)

Dissertation supervisor interview: Sample questions

A: Dissertation supervisors' general impressions about English academic literacy in an MSc programme

1. What impressions do you have about the role of English in your MSc programme?

2. How would you describe the English language proficiency of MSc students in general in your programme?

3. What impressions do you have about writing a dissertation in English for master's students in your programme?

4. Did most of the students under your supervision write their dissertation in Thai or

   English?

5. What criteria did you use to determine your student's choice of language in writing her/his dissertation?

B: Process of research and dissertation supervision

6. How many students are you supervising?

7. What expectations in general do you have about the students under your supervision?

8. Please describe the process of your dissertation supervision (accepting a student, approving a research topic, working on a proposal, supervising a lab experiment, writing-up a report etc.).

9. How do you define your role as a supervisor when you work with (*student's name*)? How do you want her/him to perceive you?

10. How would you describe your relationships with *(student's name)*?

C: Perceptions of students' dissertation writing challenges

11. What do you expect from the standard of written English in a dissertation at this level in your academic context?

12. What difficulties did you perceive (*student's name*) had in writing their dissertation in English?

13. What kind of help/guidance do you provide to (*student's name*) during the writing process? How effective, in your opinion, was it? Do you think it met the student's expectation?

14. Did you adjust or try to adjust your role to meet (*student's name*)'s expectations if you felt that your role did not meet your student's expectations?

15. What impressions or concerns do you have about master's students in your programme in general about dissertation writing in English?

D: Perceptions of potential language and academic support for prospective graduate students in science

16. What would you suggest to the English Language Teaching Unit to do in order to better prepare science students for writing a dissertation in English?

17. What would you suggest to your programme or faculty to do in order to better prepare science students for writing a dissertation in English?

Appendix 4

A Sample Transcript

Ken's first interview: 13/06/2007

(Translated from the Thai version)

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Pramarn : Please tell me about your English learning experience before you went to university?

Ken : Umm...I think it's just like that of other Thai students coming from provincial areas. I started learning English when I was in Grades 5-6 in primary school...only two or three hours per week. From Grades 7-12 in secondary school, I studied English 5-6 hours per week. Mostly, the lessons focused on reading and grammar because we needed to prepare ourselves for the university entrance examination. As you know, the exam focused on reading and grammar.

Pramarn : So, what do you think about your English reading skills and your grammatical knowledge when you were preparing for the university entrance examination?

Ken : ...very poor. I was not good at learning English at all.

Pramarn : ...although the lessons focused on reading and grammar?

Ken : Yes. I think I was not a good language learner, whether learning English or Thai, at the time. Well, even now, I still consider myself a poor language learner. I just sat in class and listened to the teacher, but I didn't really understand. There were too many grammatical rules and too many difficult words to memorise. But I was more interested in science, so I chose to study in the science programme when I was in upper secondary school. At the time, I thought it was good because I didn't have to study too many hours of English or another foreign language as those who chose to study

in the arts programme.

Pramarn : ...and when you took the English exam as part of the university's entrance examination?

Ken : It was a multiple-choice exam. I admitted that I couldn't actually do the reading part which consisted of many reading passages. They were very long with too many difficult words. I just used my guessing strategies. Well...I didn't prepare much for the exam, though. I thought my English was too poor and I didn't know how to improve it. So, I just paid more attention to science subjects. I wanted to study science, so they were more important in my opinion. Luckily, I could pass the entrance exam and study science at this university.

Pramarn : So, what do you think about your English when you were an undergraduate student?

Ken : ...very poor. At the time, learning English was a nightmare for me.

Pramarn : Can you tell me why you thought so?

Ken : As I came from a provincial secondary school, I found that my English was so poor compared to my classmates who graduated from schools in Bangkok. Like when I was in my secondary school, I sat in the back of the classroom, with some friends who were also poor in English. But we were good students...I mean...we listened to the teacher; we didn't chat or make any trouble in class. But we just didn't understand the lesson. We just felt overwhelmed by the lessons, too difficult.

Pramarn : From the questionnaire, you said that you took three English courses.

Ken : Yes, two foundation English, and one English for Science. ...got a D grade for all courses.

Pramarn : Did you take any extra English class in a private language school?

Ken : No, I was quite busy, just like other science students. We needed to attend many classes and do a lot of experiments in the lab...not much time left. I also thought that English was still too difficult for me, I mean, I found it too difficult to improve, and it seemed impossible to improve. So I paid

more attention to science subjects.

Pramarn : At that time, what did you think about the importance of English in your undergraduate studies?

Ken : I realised that it was important. I needed to read some textbooks and journals in English. Fortunately, usually, our teachers just summarised them in Thai for us. And as I said, I found it too difficult, so I got the idea that I should pay more attention to science subjects. I thought that with my strong scientific knowledge, I could also be considered a successful student because science was my major. English was my weak point, but I could use my good grades in science subjects to cover it.

Pramarn : And now, has your belief about the role or importance of English changed?

Ken : Absolutely. It's very important for me. I have realised how important English is, since I worked as a research assistant before doing my master's degree. I could not write the field reports in English, which was one of my main job responsibilities. Fortunately, I didn't get sacked because someone helped me to write them. Nevertheless, I struggled with trying to pass the ELP test in order to be accepted into this programme. As you can see, it's English that played, and still continues to play, an important role in my life. To tell you the truth, I am still haunted by my struggles with writing the field survey report in English and taking the ELP test twice.

Pramarn : Please tell me more about your job as a research assistant and your report writing in English. You got that job immediately after receiving your first degree?

Ken : Yes. I worked as a field research assistant at this university after receiving my B.Sc. I worked for a research team led by a professor who also taught me when I was an undergraduate student here. It was a one-year contract. It was very competitive to get this job, but I could get it because I got very good grades for almost all of the science subjects. I was assigned to collect different species of honeybees in different regions of Thailand...everything went fine until I finished collecting the bees. The professor asked me to write a few reports on it....where, when, what, and how I collected the

samples. All needed to be in English. At the time, I was so worried; I couldn't do it. I needed to ask for help from others. This made me know that my strong scientific knowledge was not enough if I wanted to be a successful scientist!

Pramarn : How long was the report?

Ken : Just about ten pages.

Pramarn : Can you tell me how you wrote the report?

Ken : I looked for previous reports written by other members who shared the same lab with me. I used them as my models. Then, I wrote my report in a Thai version. I couldn't do it right away in English because of my limited vocabulary and grammatical knowledge. After finishing the Thai version, I tried to translate it into English, spending a lot of time consulting a Thai-English dictionary. But with my grammatical knowledge at the time, I still had difficulties in constructing full sentences. I'd say that it was a very painful experience for me. So I asked other members of the research team to help me.

Pramarn : Who were they?

Ken : Two doctoral students. Our research team had many members. Many were tutors in our department and some were postgraduate students.

Pramarn : What kind of help did you get?

Ken : Well, they helped me translate the report. I told them openly that I had serious problems with writing the report in English. I was quite embarrassed, but it was the only way that I could have my report done. I showed them the Thai version of the full report and bits and pieces of the English version. They said they would help me with translation and also help correct the grammatical mistakes I had made. We spent many days working on the report together when we were free from doing the lab experiment. Mostly, they were the ones who worked on the translation. I thought they would understand that I really had a hard time, so they helped me translate it, almost every single sentence. Fortunately, my work contract was only for one year!

Pramarn : What did you do after that then?

Ken : Before the contract was finished, the doctoral students asked me what my plan was. I told them that I wanted to be a researcher or university lecturer and aimed to continue my postgraduate study. Both of them encouraged me to do so. The professor who led the research team also suggested that I pursue my postgraduate study here, so I could conduct my master's degree research in his lab. He'd also serve as my supervisor. So, I applied for a place to do my master's degree.

Pramarn : That's great. And how about the ELP test? You mentioned earlier that you struggled a lot with trying to pass the ELP test when applying for admission to the master's programme.

Ken : I'm still haunted by the test. It was so difficult. The minimum English language proficiency requirement for my programme at the time was 450. I couldn't pass the test when I first took it; I scored only 440. Fortunately, the programme committee accepted me with the condition that I needed to get a score of at least 450 before leaving the programme. Luckily, when I sat for the test for my second try, I could meet the programme's requirement.

Pramarn : When did you take the test for the second time?

Ken : About a year later after I had started my study on this programme. Actually, I needed some time to prepare for it; I took a TOEFL Preparation course in a private language school for several months.

Pramarn : How much did you score then?

Ken : 464.

Pramarn : So the TOEFL preparation course really helped?

Ken : Not really. I couldn't finish the course because it was too difficult. I didn't really catch up with the class. I think I passed the ELP test because of my test taking strategies. I guessed a lot when doing the test.

Pramarn : By the way, from the questionnaire, you said that you didn't attend any English language courses offered by the ELTU.

Ken : No. I could not attend the class at the ELTU because I was required to attend it on a regular basis. But I needed to go to different provinces to collect samples of honeybees for my study. I could be away for a couple of weeks each month. So, if I had enrolled on any course at the ELTU, I'd have had problems about my class attendance. The best solution for me at the time was to take an English course in a private language school. I didn't have to be worried when I needed to be away from Bangkok to do my fieldwork.

Pramarn : I agree. So, what kind of English course did you attend at the private language school?

Ken : The first one was a TOEFL preparation course, followed by two grammar courses.

Pramarn : Why did you choose those courses?

Ken : Well, first as I couldn't pass the ELP test, I wanted to prepare to re-sit the exam and thought that the TOEFL Preparation course would be helpful. Second, at the time I thought the course could also help me to learn to write because one part of the course dealt specifically with writing. This would be useful for me when I wrote my master's dissertation in English. But I dropped out halfway through the course. I found that I did not have enough English knowledge to follow the class. It was too difficult. I was just wasting my time sitting in the class and listening to the tutor because I rarely understood. I couldn't do the mock exam. When I wrote him an essay, it seemed that every sentence was incorrect. So, the tutor suggested that I attend a basic grammar course. The writing part for the TOEFL was for those who had a high language proficiency already, not for someone like me. Then, in the following semester, I enrolled on another grammar class. It was quite good this time. At least, I could gradually build a firm foundation for my English knowledge. As I planned to write my dissertation in English, at the time I thought that having good grammatical knowledge would be very useful for me.

Pramarn : I see. Did you attend any academic writing classes?

Ken : No. Actually, I wanted to take some writing classes, especially the ones

focusing on dissertation writing or long essays. I visited many private language schools. Unfortunately, at the time, I could not find academic writing classes. I think that very few students wanted to study writing, so they didn't offer any. Thai students seemed to prefer grammar and exam preparation courses. No demand, no supply. Actually, there were some, but they were geared towards writing preparation for taking the TOEFL. Other courses focused on business English and English conversation. So, I didn't take any particular academic writing course as preparation for my dissertation writing at all.

Pramarn : I see. By the way, I'd like to know what it's like to be a graduate student in your programme?

Ken : You mean what I have done in terms of academic activities as a student?

Pramarn : Yes.

Ken : Well, when I got accepted to the programme, I needed to do coursework for one year, which dealt with lectures, seminars, and some lab experiments. I also had to extensively review the literature in my field of interest, find a researchable topic for my dissertation, prepare a research proposal, and then attend a proposal defense. After I successfully passed it, I started conducting my research project with help from my dissertation supervisor.

Pramarn : What impressions do you have about the role of English in your programme of study?

Ken : Actually, we had opportunities to use English only when we needed to read journal articles or other research reports as part of our studies. In a seminar course, we may need to prepare PowerPoint presentation slides in English and also give a presentation in English. But we could answer the questions in Thai. Let me think...when we wanted to give a conference presentation, we also needed to write an abstract or summary of our research project in English. Most of the students in my programme also chose to write their dissertation in English while some opted for Thai as the language for writing their dissertation.

Pramarn	:	Apart from those writing activities in English, did you need to write anything in English as part of your studies?
Ken	:	Umm...I don't think so.
Pramarn	:	How about your research proposal?
Ken	:	I wrote it in Thai although I planned to write my dissertation in English. Like other students, I just switched to writing my dissertation in English when I came to the writing-up stage.
Pramarn	:	I see. You told me that you hadn't taken any academic writing courses, so how did you learn to write when you had to prepare presentation slides or conference abstracts in English?
Ken	:	Usually, I got some writing samples from senior students. I went through them and just tried to imitate their organisation. If I had some problems, I asked my friends, senior students, or the two doctoral students in my lab to help. I sought help from these people first before asking for more suggestions from my tutors or supervisor. Even when I wrote my dissertation, I also received language help from these people.
Pramarn	:	At the beginning of our interview, you said that your English was not good. So, I wonder why you chose to write your dissertation in English. Why not write it in Thai?
Ken	:	Well, many people who know me always ask me this question too, especially the ones who know that I'm not good at English. Although I was well aware of my limited English proficiency and more writing demands that would follow, I made a decision to write my dissertation in English from the beginning of my graduate studies. All postgraduate students need good English to be successful in their studies. As you can see, my English background is not good. This always makes me feel bad. I can't consider myself as a good science student… When I decided to continue my master's degree, I aimed to write my dissertation in English. It may help me improve my English, I believed… And it could help me redeem my confidence about my academic performance while I am completing my degree.

Pramarn : You mentioned two points here: improving your English and redeeming your confidence. Why did you think you could improve your English when writing your dissertation in English?

Ken : At the time I thought that when I chose to write my dissertation in English, I could push myself to learn to write, and gain more confidence and opportunities to use and learn English. These would result in me improving my English.

Pramarn : Can you give some examples?

Ken : Ummm...when I made any mistakes in my writing, my supervisor would correct them for me. Then, I would have an opportunity to discuss those mistakes with her and, at the same time, improve my English automatically. I could learn a lot from the feedback given, I believed. Or when I didn't know how to write something in English, I could ask others to help me. I could learn from their suggestions. But if I wrote my dissertation in Thai, I would not need to deal with English writing. Then, there was no way that I could improve my English… It's like I shot two birds with one stone: completing my dissertation and improving my English.

Pramarn : And what about the second point? What did you mean by redeeming your academic confidence?

Ken : This is more about my own feeling. As I told you earlier, I realised that my English was poor, but I was very confident about my science knowledge. I wanted to be a successful science student. My poor English always made me feel that I was not a good postgraduate student. It was my weak point. I couldn't write the report in English when I was hired as a field research assistant. I needed to take the ELP test twice. So, apart from improving my English through writing my dissertation in English, I could build up my confidence in handling English, too. I just wanted to feel more confident that I, as a graduate student, had not only good knowledge of science but also adequate knowledge of English that a good science student should possess.

Pramarn : I see. Any more reasons why you decided to write your dissertation in

English?

Ken   : Well, at the time I also considered continuing my doctoral studies and getting a job after graduation. You can see that when we want to continue our study in Thailand, especially graduate studies, we need to meet the English language requirement of the university. I was afraid that when I applied for doctoral studies at this university after completing my master's degree, I would not be able to meet the language requirements set by the doctoral programme. I might not have been able to score higher than 500 on the ELP test. Then, my strategic plan was to use my dissertation in English to show to the programme's committee that I had the potential to write the scientific English necessary for my doctoral studies. As a doctoral student, we needed to deal with more writing in English, I believed. Do you agree?

Pramarn : I do. When doing doctoral studies, I think that you need to give more presentations, and write more papers in English. As far as I know, doctoral students in science at this university are expected to write their thesis in English.

Ken   : Yes, in my programme all doctoral students write their dissertation in English although the medium of instruction is Thai. Actually, I think English is more and more important, especially after graduation. We may need to supervise master's students if we want to work as university lecturers. Then, we need to be able to help our students correct their English for sure. We also need to write more articles for publication. So, preparing to improve our English since we are students is the safest way. Our potential employer wants someone with sound English proficiency.

Pramarn : I couldn't agree more. By the way, let me ask you some questions about your dissertation preparation. First, I like to know how you chose a supervisor.

Ken   : The way in which I approached a potential supervisor is a bit different from other classmates. Most of them looked for a supervisor when they had started their coursework for a semester or two. In my case, as I worked as a research assistant for Prof Sakol, once I was accepted to study on this programme, Prof Sakol accepted me to be his supervisee. Then, he offered

me a topic for my dissertation which was a small part of his larger research project. So, I knew what my dissertation would focus on from the very beginning of my master's study whilst my friends needed to spend a semester or two to look for a supervisor and a research topic.

Pramarn : That's cool. And how did you prepare your research proposal?

Ken : Since it was part of the larger research project led by Prof Sakol, he helped me a lot. He gave me some examples of previous research proposals and journal articles useful for writing my own proposal. Again, the doctoral students in the same lab helped me a lot. It was not difficult to complete the proposal because I knew what to write and it was written in Thai.

Pramarn : And how did you prepare yourself to write your dissertation in terms of your English preparation?

Ken : I took two grammar courses at a private language school as I had previously mentioned. Actually, I wished to learn more English to cope with the daunting demands of writing my dissertation in English. But I didn't have much time and it was difficult to find appropriate academic writing courses.

Pramarn : Did you visit the Self-Access Language Learning Centre or SALLC at the ELTU?

Ken : I did for a few times. At first, I wanted to attend some writing workshops there, which would be useful for my writing preparation, but I couldn't find the right schedule for me.

Pramarn : Can you tell me what the problem was?

Ken : …timing and the number of sessions available. Most of the writing workshops or tutorial sessions were held on a one-to-one or small group basis. So students needed to book a place for the session that they wanted to attend. I found that the number of sessions was limited, but they attracted a lot of students.

Pramarn : You couldn't get a place?

Ken : Actually, I could. When I wanted to make an arrangement for a one-to-

one tutorial, I needed to put my name on a waiting list because there were so many students who also needed the same help as me. I had to wait for many days or maybe a week to be informed what session I could have after the tutors had finished arranging the timetable. But the timetable often clashed with my lab experiments or my fieldwork. Technically, I could get a place, but I couldn't attend it.

Pramarn : So what was your solution when you couldn't draw up a clash-free timetable for the writing tutorial session?

Ken : I had no choice…just cancelled the session.

Pramarn : Did you get any other kind of English language support from the SALLC or the ELTU?

Ken : No. Some of my friends went to the SALLC and self-studied there. They said they could learn English from the materials available. But I didn't do that.

Pramarn : Why?

Ken : I didn't really see how I could benefit from my self-study there.

Pramarn : You thought that the SALLC was not useful?

Ken : Not really. From my experience, I was not sure as to how the available resources could work for me without clear guidance from a teacher. When I went to the SALLC, I was overwhelmed by a lot of books and other types of language learning materials. They were useful for improving our language, I was sure. But, which book should I get? What exercises should I do first? If I had problems in working on those exercises, who could help me? I don't think we can improve our English just by reading or doing language exercises on our own. Well, I mean…those materials may be useful for those who are quite good at English, so they can learn on their own pace. But for those who are quite weak, it's not easy. So, this is the main reason why I chose to attend English courses at a private language school. I thought it was a more effective way. I could have someone to teach and guide me closely. I wanted more formal instruction.

Pramarn   :   I see your point. So far, how much of your dissertations have you written?

Ken   **:**   About 50-60%, but I may still need to revise it a lot in terms of the use of English. The content is fine, I believe.

Pramarn   :   In general, what are your perceived difficulties in preparing and writing your dissertation in English?

Ken   **:**   Well, it' a daunting task…I've faced different problems when I approached different stages of writing.

Pramarn   :   Can you tell me more about that?

Ken   **:**   Sure…like when I first prepared to write, I needed to have enough information. I needed to review a lot of literature, and sort out the recorded results of my extensive lab experiments. This was very difficult. I was overwhelmed by the information I had. Then, I needed to prepare an outline of the dissertation, considering how many chapters I should have and what content to include in each chapter. Then, I also had to consider other stuff related to writing, such as using appropriate references, correct word choice, and grammar.

Pramarn   :   So please tell me how you dealt with the literature as you said that you had a lot of it.

Ken   **:**   Well, I continuously reviewed the existing literature to catch up with the continuing progression of knowledge relating to my research topic. This included journal articles, previous dissertations and theses, and some textbooks. When I was about to write my first draft, I was shocked by the number of reading sources I had accumulated. I spent many days sorting them out and considering what sources I should include in my writing. But I'd accept that I didn't really go through some sources thoroughly. I needed to be selective. I preferred journal articles and used them as major sources of the literature in writing my dissertation.

Pramarn   :   Why journal articles?

Ken   **:**   To me, journal articles are more authoritative than the other two sources. An article in a good journal is reviewed by several established scholars in the discipline. It is then accepted by a wider research community

compared to a dissertation, which is pedagogically assessed at an institutional level. Well, this is what I have heard from many teachers from my faculty. My friends also told me about this. But actually, even among journal articles, I still had to make sure that the ones I selected were reliable.

Pramarn   :   How could you judge that?

Ken   :   I depended on my familiarity with the journal and its IF or Impact Factor number. While completing my coursework, I observed that certain journals were more often used as references in class. For the journal's IF, the higher, the better. When I was not sure about the quality of the journal, I usually asked the doctoral students in my lab for a second opinion. They were doctoral students who had been conducting research in my field for many years. Depending on their exposure to published articles, they could help me choose appropriate papers for my dissertation.

Pramarn   :   And how did you deal with the data from your lab experiments?

Ken   :   I also got a lot of data from my repetitious year-long experiments. Like other friends, I recorded everything related to my lab activities, like experiment protocols, technical problems encountered while running the experiment, and lab results. Then, they were used as a basis for writing my dissertation.

Pramarn   :   Did you record the information in Thai or in English?

Ken   :   … mainly in Thai although I knew that I would write my dissertation in English. I wrote down everything about my lab experiments in my lab notebook. It needed to be detailed, clear, and accurate. Therefore, Thai was my choice. I'd use English only when I referred to technical terms such as those related to materials, experiment techniques, and technical problems because equivalent terms in Thai do not exist. I thought recording everything in Thai was the best and most practical way to ensure accuracy in my recording.

Pramarn   :   You must have recorded a lot of information in your lab notebook because you had run several experiments during the year.

Ken	:	Absolutely.

Pramarn : So how did you select and manage the recorded information or your research data? You couldn't put everything in your dissertation, could you?

Ken : Well, I need to tell you first that before I came to the dissertation writing-up stage, like other classmates, I had sorted out almost all of the information recorded in my notebook. While I had a certain amount of lab results, I started to give presentations at conferences. When I finished all lab experiments, I had given five presentations all together. To prepare the paper and presentation slides, I had to sort out the recorded information, analyse it, and then organise it. Lab results were analysed and then put in tables or transformed into graphs. The research methods used were also summarised and included in the paper. Then I could use them as ready-processed information for my dissertation writing. So, you can see that I didn't have to deal with an overwhelming amount of raw data. I got quite well-organised data before I actually started writing my dissertation, which resulted in my having manageable information ready that would facilitate the process of writing at the later stages.

Pramarn : Did anyone help you check your presentation papers or slides?

Ken : Yes, my supervisor carefully did it if she was free. But if she was too busy to do so, she would refer me to some senior students in the lab to help me. This was very useful for me because I had someone to help check the accuracy and adequacy of my data analysis and presentation.

Pramarn : So you gave presentations with more confidence?

Ken : I did because I knew that the content of my presentation was previously examined by experienced scientists, like my supervisor or senior students.

Pramarn : You also wrote your dissertation with more confidence, didn't you?

Ken : Absolutely. I didn't have to worry much about the content. My previous conference abstracts and presentation slides also made my dissertation writing easier to some extent. For example, I could recycle them in my dissertation. This saved a lot of my time. I didn't have to write from

scratch. I could "cut and paste" many sentences or long stretches of sentences where possible into my dissertation drafts. Actually, I also benefited from the audience's feedback. In each presentation, I received constructive comments from the audience. Some commented that my data were not adequate; others suggested how I could improve my data to make them more reliable. First, I felt a bit bad when receiving such comments. I later found that they were useful, though. Those comments, as my supervisor told me, would help me reconsider the strengths and weaknesses of my research data and presentation when I was writing my dissertation chapters.

Pramarn : I agree… So, you had manageable information for your dissertation writing. Can you tell me what you did in planning or organising your dissertation?

Ken : I spent quite a lot of time planning how to organise and write my dissertation. This was quite difficult for me, and possibly for all students writing a dissertation for the first time, whether the dissertation is to be written in Thai or in English. It was because we all read previous dissertations, but we didn't really know how to write. So, I needed to make sure that I wrote it according to the programme's expectations.

Pramarn : What did you do exactly then?

Ken : I learned by observing and imitating. First, I went through the Graduate School Handbook. There is one section about how to prepare a dissertation/thesis. The handbook provides only a few guidelines, such as the components of a dissertation, the use of headings, and how to write an abstract. But they were useful. I got some basic information about writing from consulting the handbook. Apart from that, I went through several dissertations and used them as writing models.

Pramarn : Can you tell me a bit more about what kinds of things you learned from going through previous dissertations?

Ken : Let me think…Well, my observation was that dissertations from different programmes were organised or written differently in some ways, although they were all from the Faculty of Science. Let me give you an example.

When I was about to write, I was quite confused about the overall structure of the dissertation. In other programmes, the dissertations contained five chapters. In my programme, it was different. The number of chapters ranged from five to seven. I then went through the ones supervised by my supervisor. All had six chapters, so I decided to follow them. I think that following previous dissertations supervised by my supervisor would help me avoid a false start in my writing.

Pramarn : Did you also seek suggestions from other people directly?

Ken : Sure. Sometimes, it was quite difficult to make a decision on certain aspects of writing. Whenever I was not very sure, I asked some senior students. They started writing their dissertation before me, so they knew more than me. Let me give you another example here. I found that the dissertations from other programmes used a numerical referencing system. However, when I went through several dissertations in my programme, I found that they all used the APA referencing system. What system to follow then? I discussed with a senior friend what system he used and if my observation about the use of referencing systems was correct. I later asked my supervisor for confirmation about this issue. I think that talking to others is one of the best ways to learn how to write. The two doctoral students in my lab greatly helped me with almost all of the problems I had. Well, this doesn't mean that I always depended on others. What I meant to say is that I tried my best to observe or research how to write first. Then, when I had some problems, I asked others to help clarify.

Pramarn : I see. Can you tell me what else you learned from going through previous dissertations and talking to others?

Ken : Ummm…I could look at how they organised individual chapters, how they divided headings, and how much information was included in each section. I also tried to memorise some vocabulary and expressions from those dissertations. Some of them were really useful. I could use them in my writing at later stages.

Pramarn : Any other strategies you used in preparing and writing your dissertation?

Ken : Well, I paid a lot of attention to making a detailed outline of each chapter.

It gave me a guideline to follow when I was writing. It helped me see if the content of my dissertation was adequately and coherently presented. To put it another way, preparing a detailed outline was a means to provide a concrete frame for guiding my writing. When I had an outline of each chapter, I usually asked the two doctoral students to comment on it. I would revise it if necessary and then give the revised outline to my supervisor for further feedback. This was time-consuming, very time-consuming, but I just wanted to make sure that I was going to write something that met my supervisor's expectations. I was aware that my writing was very poor, so I might spend two to four hours, or maybe a day or two, trying to write only one paragraph. Having the outline accepted by my supervisor first meant that I'd not invest my time and energy in writing anything that was unnecessary.

Pramarn : You said that you gave the outline to your supervisor to comment on before you started writing. Did your supervisor ask you to do so?

Ken : No, it was my own decision to approach my supervisor for feedback on the initial outlines. Some of my friends didn't do so because their supervisors didn't say that they were required to. It might be because the supervisors thought that my friends didn't have any problem. To me, it was my own responsibility to approach my supervisor when I needed help. It might be because I felt very close to my supervisor, so I was very comfortable to ask for suggestions whenever I was uncertain about any aspects of my dissertation writing.

Pramarn : Can you describe your relationship with your supervisor in more detail?

Ken : Well, I have to tell you first that I have two supervisors. The first one is Prof Sakol and the second Aj Nisakorn. I started working with Prof Sakol but later Aj Nisakorn stepped in to supervise me. It's because Prof Sakol needed to be away from the university for some time to chair a newly-established master's programme at another university. He was too busy, so he asked Aj Nisakorn to help. The supervisor whom I referred to previously is Aj Nisakorn because she is the one who has supervised me. Prof Sakol got involved only in the first semester of my studies when I was completing the coursework.

Pramarn : Ok, so we're going to focus on Aj Nisakorn. Please tell me about your working relationship with her.

Ken : In my opinion, she is very nice and very supportive. She is always there whenever I need help. I feel very comfortable to ask for help from her. This might be because I have known her for quite a long time. I studied with her for a few courses when I was an undergraduate student. When I worked as a research assistant, she was also on the research team. I'd say that she is nice to all students, so I just feel very comfortable to meet her when I need any academic help. I also feel free to tell her all about my academic problems, and sometimes my personal problems.

Pramarn : I see. Tell me what kinds of academic help or guidance she has provided to you so far.

Ken : Well, when Prof Sakol was away from the university and she stepped in to supervise me, she carefully read my research proposal. She also gave me many research papers and suggested where I could search for more literature. Then, she prepared a mock exam for my proposal defense. While I was running the lab experiment, she also helped me check if I followed the procedures and recorded the lab results correctly. What's more, when I had enough lab results, she encouraged me to give a presentation. She also looked for some financial support for me because I needed to spend a lot of money when doing my fieldwork. Last year, my paper was accepted for a conference presentation in Singapore. I didn't have to worry about the expenses because she applied for financial support from the university for me. In general, I'm very happy with her supervision.

Pramarn : And how about her help with your dissertation writing in particular?

Ken : She's tried her best to help me. Whenever I gave her my drafts, she went through them carefully. On many occasions, I didn't know how to write certain phrases or sentences in English, so she suggested that I write them in Thai. Then, we went through them together. She tried her best to help me to translate those problematic phrases or sentences. If she was too busy with other urgent work and, then, couldn't help me with my drafts, she would refer me to doctoral students who were also under her

supervision. These doctoral students would help me with my writing. I feel very comfortable to show her my writing in English although I know that it's not very good. She's known that my English is quite poor, I guess, but she's tried her best to help me. She's never given me any harsh comments. Her comments on my writing are very constructive. I think I have learned a lot from her, not only in terms of scientific knowledge but also English writing skill. Well, I didn't mean that my writing is good at the moment. It's still not very good, but with her help, I believe that I can write my dissertation in English with confidence. So, in general I'm happy with the ways in which she has supervised me.

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Appendix 5

Coding Categories for Summative Analysis

> **1. Reasons for choosing to write dissertations in English**
>
> Definition: Factors directing the students to choose English for writing their dissertations

1.1 <u>Forming one's academic identity</u>

Definition: Ways in which the students perceived and wanted other people to perceive, their overall academic performance by relating it to their ability to write in English

Exemplary interview segment:

> "I didn't want to see myself as someone who could only do science but couldn't handle English. I'd feel academically inferior to other course colleagues." (Joy, First interview)

1.2 <u>Planning for academic and professional prospects</u>

Definition: Students' perceptions of the advantages of writing their dissertations in English in helping them to achieve their future academic and professional goals

Exemplary interview segment:

> "I believed that the completed dissertation could serve as vital and tangible evidence of my English performance. This could increase my chances of being accepted to study in a doctoral programme." (Pat, First interview)

2. Linguistic preparation for dissertation writing

Definition: Ways in which the students prepared themselves to cope with the linguistic demands of dissertation writing before they arrived at the dissertation writing-up stage / students' perceptions of the advantages of linguistic preparation for their dissertation writing

2.1 <u>Taking additional English language classes</u>

Definition: Students' attendance and perceptions of English language classes at the English Language Teaching Unit (ELTU) or at a private language school when they were completing their postgraduate studies

Exemplary interview segment:

"The course was generally fine. I could improve my reading skills, which was useful for handling the literature in my field. Yet it seemed to do nothing to help with my writing ability. The tutor did not touch on academic writing as I had expected" (Pat, First interview)

2.2 <u>Accessing other institutional language support and resources</u>

Definition: Students' use and perceptions of services and language resources provided by the Self-Access Language Learning Centre and the Writing Centre

Exemplary interview segment:

"I think this [learning from comments given by a tutor from the Writing Centre] is the way I can be more autonomous in learning and eventually learn how to point out and fix my writing problems on my own." (Joy, First interview)

3. Pre - writing preparation

Definition: Ways in which the students tried to understand the components and writing conventions of dissertations in their disciplines

3.1 <u>Developing the basic knowledge of the dissertation genre</u>

Definition: Ways in which the students tried to conceptualise the generic features and readerships of dissertations in their disciplines

3.1.1 <u>Learning the macro-structure of dissertations</u>

Definition: Ways in which the students developed their understanding of the structural organisation of dissertations expected by their study programme and supervisor

Exemplary interview segment:

"I found it more practical to look to dissertations completed in my programme as model texts for paving the way to learn how to write this high-stakes piece of writing." (Wan, First interview)

3.1.2 <u>Identifying appropriate writing conventions</u>

Definition: Ways in which the students developed their understanding of the writing conventions of dissertations (e.g. referencing systems, numbering of section headings, graphic titling, line spacing) expected by their study programme and supervisor

Exemplary interview segment:

"For all dissertations supervised by my supervisor, Chapter 2 was entitled 'Theoretical Background.' Other dissertations on the programme simply used 'Literature Review.' I then chose Theoretical Background as the title for Chapter 2 in my dissertation, which may be what my supervisor preferred." (Joy, First interview)

3.1.3 <u>Appealing for further clarification</u>

Definition: Ways in which the students tried to ascertain their understanding of how to write their dissertations to meet the expectations of their study programme and supervisor

Exemplary interview segment:

"I had some ideas of the ways I should organise and write my dissertation from reading many dissertations. Yet, I also talked to others to make sure that my ideas were correct." (Pat, First interview)

3.2 <u>Selecting and managing information for writing</u>

Definition: The students' manipulation of information in their writing in order to ensure the scientific credibility of their dissertation

3.2.1 <u>Evaluating literature-based information</u>

Definition: Ways in which the students sorted out and evaluated the literature, and cited authoritative sources of information

Exemplary interview segment:

"Textbooks provide basic information or general theoretical frames for conducting research. I preferred updated research findings from advanced empirical studies when preparing references for my writing" (Wan, First interview)

3.2.2 <u>Negotiating with laboratory-based information</u>

Definition: Ways in which the students processed information derived from their lab experiments in order to obtain manageable and scientifically credible information ready for writing their dissertation

Exemplary interview segment:

"Lab results were analysed and then put in tables or transformed into graphs. Research methods used were also summarised and included in the paper. Then I could use them as ready-processed information for my dissertation writing." (Ken, First interview)

3.2.3 <u>Rationalising the content of individual chapters</u>

Definition: Ways in which the students ensured that the content of each chapter was logically and adequately presented

Exemplary interview segment:

"We went through the outlines together. Actually, she (Aj Patcharee) suggested quite a lot of changes each time. With her help, I had a clearer idea of what information should be included and how it could be organised more effectively in my draft." (Pat, First interview)

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4. Text-writing and revision

Definition: Ways in which the students actually composed the first drafts of individual chapters and later dealt with multiple revisions of the drafts

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4.1 Reusing and learning from source texts

Definition: Ways in which the students strategically used source texts as their textual mentorship

4.1.1 <u>Borrowing a content-bearing block of text</u>

Definition: Ways in which the students borrowed a block of text from different sources to reuse in their dissertation

Exemplary interview segment:

"I didn't really paraphrase them (source texts). Rather, I combined them with the texts from different sources. I added some phrases or sentences using my own words to smooth out the connections" (Wan, Second interview)

4.1.2 <u>Developing a repertoire of language choices</u>

Definition: Ways in which the students compensated for their limited English proficiency by accruing their knowledge of language choices from their

exposure to different source texts in order to help them express their ideas in English clearly and concisely

Exemplary interview segment:

> "I tried to find some words or expressions from the literature to use in my writing...when I was reading any journal articles, I used a marker pen to highlight the parts of the journal articles, such as words, expressions or sentence structures, that I thought I could use in my dissertation writing." (Joy, Second interview)

4.2 Using Thai (L1) and translation strategies

Definition: Ways in which the students relied on their L1 (Thai) writing in order to facilitate their writing process

4.2.1 Using Thai to facilitate the process of writing

Definition: Reasons why the students switched to writing in Thai during the process of composing their drafts

Exemplary interview segment:

> "Very often, I couldn't put my ideas down directly in English in full sentences. I got stuck with some words, so I jotted them down in Thai. This helped me to complete the whole paragraph without any interruptions." (Pat, Second interview)

4.2.2 Dealing with Thai-English translation

Definition: Strategies that the students used in translating the parts of their drafts previously written in Thai into English

Exemplary interview segment:

> "There are a huge number of users on this forum [an online community]. Many of them are postgraduate students in the fields of science. When I had problems with English [in terms of translation], I asked them to help." (Ken, Second interview)

4.3 <u>**Relying on the supervisor's feedback**</u>

Definition: Types of language corrective feedback the students received from their supervisors / the supervisors' perceptions of appropriate ways in providing corrective feedback to their students

Exemplary interview segments:

"My supervisor not only corrected the language mistakes I had made, but also often explained why they were incorrect. This helped me understand what I did wrong." (Pat, Third interview)

"I encouraged my students to discuss with me after they received the draft with my language feedback. I wanted my students to talk to me about what problems they had encountered...When they let me now their problems, it then won't be too late for me to help them" (Aj Patcharee, Interview)

5. Final preparation of the dissertations

Definition: Types of language editing assistance provided by the supervisors and other strategies used by the students when the supervisors did not provide adequate assistance / the supervisors' perceptions of appropriate ways in providing language editing assistance to their students

5.1 <u>**Obtaining sufficient editing assistance from supervisors**</u>

Definition: Types and level of language editing assistance received from the supervisors and others / the reasons why the supervisors agreed to provide a high level of editing assistance to the students

Exemplary interview segment:

"My supervisor engaged me in the editing process. After she had finished editing the draft, we had meetings to discuss it in detail, she always asked me whether I agreed on what she had corrected or changed." (Pat, Third interview)

"I help all of my students edit their dissertations. I usually follow the same practice, if time permits, by editing their drafts on my own and then holding further meetings with them to discuss the corrected drafts."
(Aj Patcharee, Interview)

5.2 <u>Obtaining insufficient editing assistance from supervisors</u>

Definition: Types and level of language editing assistance received from the supervisors and others/ the reasons why the supervisors did not agree to provide a high level of editing assistance to the students

Exemplary interview segment:

"I found that Aj Boonyarit corrected only a few language errors in the draft. I knew there must have been many more errors, but he didn't correct them; he pointed out some problems about formatting, but I wanted him to pay more attention to the language." (Joy, Third interview)

"It was her work [Joy's work], so it needed to reveal her own writing ability and style. As long as those linguistic mistakes didn't lead to misinterpretations, I didn't correct them." (Aj Boonyarit, Interview)

Appendix 6

Sample Graduate School Handbook

Guidelines for Writing Dissertations/Theses (2005)

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Thesis components:

A thesis can be divided into 3 parts:

1. Preliminary Section

2. Text Section or Body of Text

3. References Section or Back Matter

1. <u>Preliminary Section</u>

This includes the section from the front cover to the last page before the text section and is comprised of:

1.1 Outer cover

The outer cover is made of hard paper covered with dark green laqueseal paper with embossed gold letters. The Graduate School will be responsible for the binding and covering after the thesis has been approved.

1.2 Title page

This page contains details of the thesis title, author's name and title. The author's academic qualifications should be omitted from this page as it will appear in the author's profile at the end of the thesis. However, the author's rank, rank of nobility, title conferred by the kings, or religious rank should appear on this page. Also included are the title of degree, field of study, department, faculty/program, academic year, and ISBN (International Standard Book Number). The last line must state that the thesis is the copyright of the University.

There are two title pages. _If the thesis is in English or other foreign languages_, type the first page in Thai and the second page is in a chosen foreign language. _However, for all international programs the foreign language page must appear before the Thai page; the rest of the thesis contents appear in the same order as in other programs._

1.3 Approval page

If the thesis is in English or other foreign languages, the approval page must also be in that language.

1.4 Abstract

This page contains a short, concise, and clear summary of the thesis that allows readers to quickly comprehend the topic of the thesis. _The abstract must not be more than 1 page. All these must include one page each of an abstract in Thai and English or in other foreign languages of the thesis._

The abstract should include:

- Objectives, goals, and scope of the research
- Research methodology, including equipment, data collection method, number and type of the group under study
- Research findings including statistical significance (if carried out)

A good abstract should meet these criteria:

Accuracy

Indicate the objectives and contents of the thesis topic.

Completeness

Acronyms or uncommon words must be written in full when they first appeared. Citation of document, example, text, equation, or drawing is not necessary. The abstract should contain key words that can be used for database indexing.

Precision, conciseness, and clarity

Each sentence, especially the leading sentence of a paragraph, should be meaningful and as concise as possible.

Coverage rather than evaluation

An abstract should only report significant findings and statistical data of the research and should not contain any critiques.

Articulation and coherence

An abstract should contain complete sentences in active format. Use present simple tense when summarizing research findings and suggesting research application; use past tense when referring to research methodology and experiments.

1.5 Acknowledgements

Acknowledgements are statements of gratitude to any individual, institution and/or agency that provided assistance or cooperation during the course of the thesis. They may be extended to the members of thesis examination committee, financial sponsor, individuals who provided suggestions and information as well as those who permitted the use of writings and research equipment. Acknowledgements are considered an academic and ethical obligation that researchers should fulfill, but should be confined to most significant support only. They should be written in plain academic style; avoid using spoken and colloquial language. *Individuals should be referred to by their real names and last names along with appropriate titles*; do not use nicknames. Also indicate their rank/academic titles and positions. Acknowledgements page is preceded by an abstract page. *It must not exceed 1 page and the name of the thesis author must not appear at the end.*

1.6 Contents

This page outlines important sections of the thesis in proper order of page numbers. Chapter titles, main headings, and minor headings must be consistent with those on the thesis body of text. The first page of the content is counted but contains no page number while all the following pages are numbered.

1.7 List of tables (if any)

This page lists the captions and page numbers of all the tables that appear in the thesis; it follows the table of contents page.

1.8 List of figures, List of Illustrations (if any)

This page lists the page numbers of all figures (figures, maps, charts, and graphs) in the thesis; it appears on a new page following the List of the Tables page.

1.9 List of abbreviations (if any)

This page describes symbols and abbreviations used in the thesis and appear on a new page following the list of figures page.

2. Body of Text is divided into 3 sections: Introduction, Main Text, and Conclusions/or Suggestions.

2.1 Introduction

This is the first chapter of the thesis that provides background information and indicates the significance of the problem, research objectives, scope, brief methodology, and benefits.

Other details may be included as deemed appropriate by the thesis advisor and individual Department.

2.2 Main Text

The main text can be divided into as many chapters as needed and should include one chapter of a literature review detailing relevant concepts, theories and previous research works. There should also be a chapter detailing comprehensive research methodology employed, steps taken, types of documents, information or equipment used and the manner in which they were obtained, research findings as well as their analysis and discussion.

In some fields of study, the latter chapter can be divided into two chapters: the first chapter describes the research methodology employed and the second chapter reports, analyzes and discusses the research findings.

Details of the main text should follow accepted standards in individual field of study.

2.3 Summary and/or Suggestion This section summarizes the whole thesis while indicating limitations of the research (if any) and providing suggestions for further research effort, research benefits and applications.

3. References Section

This comprises of references, appendices, thesis author's biography, curriculum vitae, and vita.

Each thesis must have a list of references that details titles of the books, publications, and audiovisual materials, and data collection methods used in the thesis. The list of references is preceded by the main text and *contains all the documents cited in the body of text of the thesis only*. If the author wishes to include other references used but not cited in the text, they should appear on a new page titled **Bibliography**.

Appendices are supplementary texts that cannot be included in the body of the text but can enhance thesis comprehension and nay relevant research data that were not directly cited in the thesis. The first page of this section, center aligned, is titled **Appendices**. The page is counted but contains *no page number*. If there are many appendices they should be labeled Appendix A, Appendix B, Appendix C … and so forth. *Each appendix begins on a new page and all pages contain a page number*. If the appendix contains footnotes they must be numerically ordered and appear separately in each appendix. Footnote style and fonts must be the same as those employed in the body of the text.

The **Author's biography** appears on the last page of the thesis and must be numbered. **The biography text must not exceed 1 page** and should include the following information of the author:

-First and last names with applicable title, rank, rank of nobility, title conferred by the king, and religious rank.

- Date and place of birth

- Educational credentials from bachelor's degree or an equivalent upward together with details of relevant academic institution and year of degree completion.

- Work experience

- Academic publications

- Award or scholarship received; state only the important ones

- Current work position and office

Thesis writing

1. **Fonts**

Back and legible font size must be used and must be consistent throughout a;; sections of the thesis

2. **Paper**

The thesis must be printed on single sided plain white A4 80 grams paper.

3. **Format**

The format must be in accordance with the Graduate School's guidelines.

Writing precautions

If the last word of a sentence cannot be completed on the sane line, the whole word should be moved to the beginning of the next sentence. Line spacing and indentation should be arranged in an easy to read and appropriate manner. *Left margin should be appropriately 1.5 inches while right, top, and bottom margins are approximately 1 inch. The top margin is measured from the edge of the paper to the page number.*

4. **Page numbering**

Use lowercase Roman numbers in all front matter. For page numbering of a thesis written in English or other foreign language, begin with iv on the Thai abstract page. Though counted, *no page numbering (neither in letters nor Roman numbers) appears on the title page (both Thai and English), approval page, and the first page of Table of contents do not contain any page numbering*.

The ***body of the text*** and ***references*** pages are numbered consecutively as 2, 3, 4, etc. throughout the thesis *with the exception of the first page of each chapter, the first page of the List of references, and the first page of the Appendices*, although these pages are counted.

The page numbers are placed at the top right hand corner of every page 1 inch from both the top and right margins.

5. **Chapters and chapter headings separation**
    5.1 Chapter
Each chapter must begin on a new page and the number of the chapter must be in uppercase Roman numbers. For a thesis written in English or other foreign languages the word "**Chapter**" is center aligned 1 inch from the top edge of the page. The "**Chapter's title**" (all in capital letters for a thesis written in English) is also center aligned and appears below the **CHAPTER** line *with one line spacing*. Chapter titles that are longer than 1 line can be divided into 2-3 lines as deemed appropriate and must appear in a reversed triangle shape with *no underlining. The chapter titles may be bolded or in slightly larger font size than normal.*

5.2 Headings

Headings refer to *the main sections* of a chapter other than the chapter's title which *should be bolded or underlined with left justification*. The headings' font size may vary according to the hierarchy of headings and should have greater than normal line spacing before and after each heading.

For thesis written in English the first letter of the first word and every other word in the headings must be capitalized with the exception of the prepositions, conjunctions, and articles unless they are the first word of the headings. For thesis written in other foreign languages, such format is at the advisor's discretion.

If there is only one line left on the page after a new heading, start the heading on a new page.

5.3 Sub headings

Leave reasonable indentation for sub headings. A number prefix or a letter-and-number prefix can be used with sub headings as appear in the following examples.

Format A   Letter-and-number-prefixes

United States

A. Civil War, 1861-1865
…………………………………………………………………………
……………………………………………………………………………………………..
1. Causes …………………………………………..……………………..
....
a) Slavery ………………...…………………………………
(a) Compromise ……………………………………………….
……………………………………………………………………………………
(b) Compromise of 1850 …………………………………...
……………………………………………………………………………………

Format B   Number prefixes

<u>United States</u>

      1. <u>Civil War, 1861-1865</u>

………………………………………………………………………………….
…………………………………………………………………………………………

     1.1 <u>Causes</u> …………………………………………………………………....

....

       1.1.1 Slavery …………………………………………………………….
………………………………………………………………………..………………….

        1.1.1.1 Compromise …………………………………………….
…………………………………………………………………………………………

         1.1.1.1.1 Missouri Compromise ……………………………
…………………………………………………………………………………………

         1.1.1.1.2 Compromise of 1850 …………………………….
…………………………………………………………………………………………

6. Tables, figures, maps, charts, and graphs

Tables include table numbers, captions, texts, and sources which are usually presented in a single page.

If the table is too long to fit on one page, continuation to the next page is acceptable keeping in mind that the table number, caption, and at least two lines of the table content need appear on the same page. If the table is completed on one page but its source has to be written on the next page, at least two lines of the table content need to be spilt to the next page even though some free space will appear in the table on the previous page.

The size of the table should not exec the normal margins of the thesis. Oversized tables must be resized by photocopying or other suitable means, but must remain easily legible. For a table whose width will not fit on a normal thesis page, it can be rotated till the top of the table is placed toward the binding (left) edge in a landscape format.

Sample Table

Table 2   Dok Yaa franchise operation sharing

Dok Yaa franchise investment	Bangkok	Provinces
1. Franchise fee	400,000	400,000
2. Contract insurance. To be reimbursed with interests at contract maturity	300,000	300,000
3. Furniture	500,000	1,000,000
4. P.O.S.	300,000	300,000
5. Goods insurance	400,000	400,000
Total	1,9000,000	2,800,000

<u>Sample Figure</u>

Figure 1 Illustration of ………..
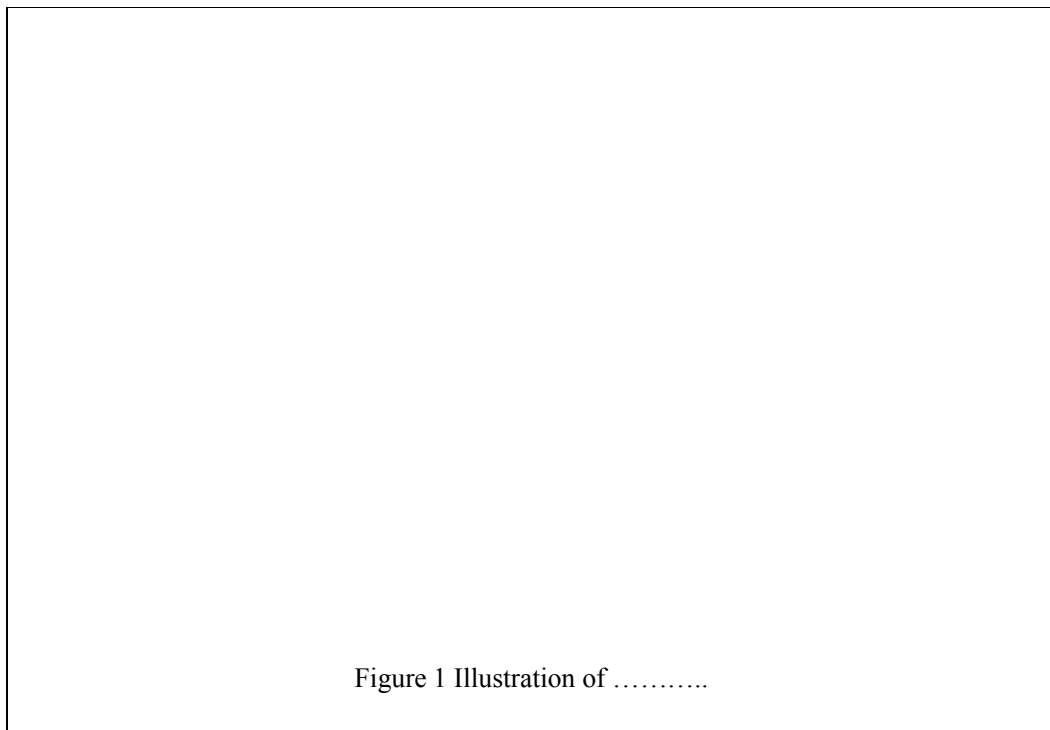
7. Scientific names

Scientific names of microorganisms, plants, and animals are written in accordance with the International Code of Nomenclature guideline and must be differentiated from other letters or texts either by **underlining** or *italicizing*.

Binomial system is adopted for scientific names. In this system all organisms are identified by a two-part name, the first name is capitalized and identifies the genus while the second name is the Specific epithet that is written slightly further from the first in lowercases. The ending of scientific names usually contains the name, the last name of the first individual who defined the species along with a description of that living organism. An abbreviation is normally used for the name of a well known person, for example, Linnaeus is abbreviated to **Linn.** or **L**. In some cases in which two individuals defined the organism both names are included, for example:

A. Microorganisms such as *Escherichia coli*

Bacillus subtilis

Azospirillum brasilense

B. Plants such as *Oryza sativa L.*

Zea mays L.

Aglaia odorata lour.

C. Animals such as *Crassostrea commercialis* Iredale & Roughly

Spiella inermis Ferussac & d'Orbigny