



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Research Commons

<http://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

**UNDERSTANDING SECOND LANGUAGE ACQUISITION IN RELATION TO
INTENTIONALITY, EPISTEMOLOGY AND COGNITIVE PROCESSES IN AN
ACADEMIC CONTEXT: A REALIST PERSPECTIVE**

A thesis

submitted in partial fulfilment

of the requirements for the degree

of

Doctor of Philosophy (PhD)

at

The University of Waikato

by

HYESEUNG JEONG



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2014

STATEMENT OF INTELLECTUAL OWNERSHIP

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

To the best of my knowledge and belief, this thesis contains no material previously published by any other persons except where due acknowledgement has been made.

Signature:

Date:

ABSTRACT

This study investigated the nature of the second language acquisition (SLA) of eight international PhD students that occurred as they undertook the literature review when planning their doctoral research projects at a New Zealand university. While the social, cultural approaches have been seen as broadening the field of SLA by introducing diverse epistemologies (Ortega, 2012), their conceptions of the mind and cognition of the second language speaker as a social product, and of SLA as the outcome of social processes (see Atkinson, 2011a), appear to be problematic in terms of understanding the central mechanisms of SLA. This study addresses this issue by explicating the mind and cognition of the participants and their SLA from a *phenomenological realist* perspective.

Central to the theoretical framework for the study are Husserl's (1970) realist ontology and epistemology, Widdowson's (1983, 1990) theory of language learning through the *negotiation of meaning* and Bruce's (2008a) identification of extra-linguistic and linguistic areas of *genre knowledge* in an English-medium academic context while developing their literature reviews (LR). *Interpretative phenomenological analysis* (Smith, Flowers & Larkin, 2009) was used as the overarching methodology to investigate the ontology of the participants, their epistemological processing, and their acquisition of academic English. This involved analysing monthly interviews with individual participants and supplementary data collected during a six-month conditional enrolment period. In addition, an analysis of the actual LR texts of five participants was undertaken to examine the textual outcomes of the LR process. This analysis focused, in particular, on genre knowledge and logicity as critical elements of the academic competence that the participants were engaged in developing.

The findings of the study suggest that intentionality as a cognitive process was what enabled the participants to engage with social processes in the course of their SLA. This function of intentionality seems to accord to the realist notion of the *a priori* existence of the mind rather than the social, cultural idea of the mind emerging as the result of internalising social processes. Thought and language, as two separate entities in the knowledge of the participants, seemed to interact hierarchically in the process of undertaking the LR. Their SLA seemed to occur

through this hierarchical thought-language operation, which involved participants drawing on and using new linguistic and procedural resources to express their thought. In addition, the thought of the participants seemed not to be constrained or regulated by linguistic and rhetorical systems (either from their first language or English). Rather, in their efforts to engage with disciplinary knowledge when processing and communicating the meaning of academic texts intended by the authors, participants went beyond such cultural frames. Significantly, this meaning-uncovering intentionality appeared to facilitate parallel SLA. While advice and feedback from other members of their particular community appeared to be important to their SLA, it was not evident that social interaction was the central, facilitative process. Moreover, the overall findings of the study suggest a need to expand the scope of what constitutes SLA in academic contexts. That is, developing competence in using academic English appeared to involve not only the acquisition of linguistic resources, but also developing extra-linguistic genre knowledge that ensures textual coherence, in order to communicate intended thought including logicality and criticality successfully.

ACKNOWLEDGEMENTS

My deep, heartfelt thanks go to:

Dr Ian Bruce, who has been my role model for a scholar with excellence, integrity and humility, and who has refined my knowledge and language; Associate Professor Dr Roger Barnard, who always kept me on my toes to sharpen my arguments; Dr James McLellan, who encouraged me from a distance; my eight participants, who helped me with their kind, generous hearts; Cathy, who has listened to, understood and agreed with my dream and hope; Meekyeong, Junaidah, Zuwati and Leen, who have filled my last four years with happy memories; Mr Ben Kalt, who encouraged me to undertake a PhD; my family, who have provided tremendous, unfailing support and love; and, Bosse Thorén, with whom my PhD journey makes sense.

Without these people, my thesis would not see the light of day.

TABLE OF CONTENTS

STATEMENT OF INTELLECTUAL OWNERSHIP	III
ABSTRACT	IV
ACKNOWLEDGEMENTS.....	VI
TABLE OF CONTENTS.....	VII
LIST OF TABLES AND FIGURES.....	XIII
LIST OF TABLES	xiii
LIST OF FIGURES	xiii
1 INTRODUCTION.....	1
1.1 Intentions of the study	1
1.2 Contrasting phenomenological realism with social constructivism in relation to the issue of value-laden knowledge	4
1.3 The research objectives	6
1.4 The structure of the thesis	7
1.5 Defining central concepts.....	8
2 BEYOND THREE PARADIGMS IN THE STUDY OF SECOND LANGUAGE ACQUISITION	10
2.0 Overview: Three paradigms in the study of SLA	10
2.1 Behaviourism and cognitivism.....	12
2.1.1 Behaviourism	12
2.1.2 Cognitivism	15
Summary and implications of Section 2.1	18
2.2 Social, cultural SLA stream	19
2.2.1 Diverse approaches in the social, cultural SLA stream.....	19
2.2.2 Philosophical beliefs among the social, cultural approaches	20
2.2.3 Sociocultural theory (SCT)	21
2.2.4 Language socialisation (LS).....	28
2.2.5 Emergentism: Ecological perspectives, complexity theory and the sociocognitive approach.....	32
2.2.6 The identity approach.....	35
2.2.7 The conversation-analytic approach (CA)	38

Summary and implications of Section 2.2.....	42
2.3 Conclusion.....	42
3 CONCEPTUAL FRAMEWORK FOR EXAMINING SLA IN	
KNOWLEDGE DEVELOPMENT.....	44
3.0 Overview.....	44
3.1 Reconceptualising mind, cognition, knowledge and language: A review of Husserl’s theory of knowledge.....	45
3.1.1 Phenomenological realist tradition.....	45
3.1.2 The first stage.....	46
3.1.3 The second stage.....	48
3.1.4 The third stage.....	50
3.1.5 Graduated nature of knowing.....	57
3.1.6 The nature of language and its function for knowledge acquisition and communication.....	58
Summary and implications of Section 3.1.....	60
3.2 Theories, concepts and issues in examining SLA in English-medium academic contexts.....	62
3.2.1 Undertaking the LR for a research project.....	62
3.2.2 Widdowson’s theory of language learning through the negotiation of meaning.....	64
3.2.3 Knowledge areas involved in using and learning academic English and their operations: Bruce’s theory of genre knowledge.....	69
3.2.4 Competence in learning and using language in academic contexts.....	75
3.2.5 Issues in critical thinking of second language speakers of English.....	78
Summary and implications of Section 3.2.....	79
3.3 Conclusion.....	80
4 METHODOLOGY.....	81
4.0 Overview.....	81
4.1 Research questions.....	81
4.2 Research paradigm.....	82
4.3 Application of interpretative phenomenological analysis (IPA).....	83
4.3.1 Overview of IPA.....	83
4.3.1.1 Philosophical and theoretical backgrounds.....	83

4.3.1.2 Principles of IPA.....	85
4.3.2 Interviewing method and data analysis in IPA	87
4.3.2 Rationale for the application of IPA to the study.....	90
4.4 Research procedures.....	92
4.4.1 The research background, participants and researcher	92
4.4.1.1 The research background	92
4.4.1.2 The participants.....	95
4.4.1.3 The researcher	98
4.4.2 Data collection	99
4.4.2.1 Data collection procedure	100
4.4.2.2 Monthly interviews with each participant.....	103
4.4.2.3 Collecting documents and additional verbal accounts.....	105
4.4.3 Data analysis	107
4.4.3.1 Experience with NVivo 9.....	107
4.4.3.2 The procedure of the analysis of the interview and supplementary document data	108
4.4.3.3 The procedure of the analysis of the final LR text.....	112
4.5 Assessing the quality of the study.....	115
4.5.1 The quality of the study in terms of Husserl’s three conditions for knowledge	115
4.5.1.1 Transcending towards data.....	116
4.5.1.2 Applying logic.....	116
4.5.1.3 Achieving intersubjectivity	117
4.5.2 The quality of the study as IPA research	118
4.5.2.1 Practice of the theoretical principles of IPA	118
4.5.2.2 Transparency and coherence.....	119
4.5.2.3 Sufficient sampling from corpus.....	119
4.6 Conclusion	119
5 SLA IN DEVELOPING ACADEMIC KNOWLEDGE	121
5.0 Overview.....	121
5.1 Cognitive dispositions and processes in undertaking the LR	122
5.1.1 Undertaking the LR during a conditional enrolment period.....	123

5.1.2 Intentionality as the fundamental condition for knowledge and language development.....	124
5.1.3 The relation between thought and language in knowledge development	130
5.1.4 Understanding meanings intended in the target literature	136
Summary and implications of Section 5.1	141
5.2 The occurrence of SLA through cognitive processing	141
5.2.1 SLA and seeking accurate understandings of the meanings intended by others	142
5.2.2 SLA and thought-language operation in encoding thoughts	149
5.2.3 Critical thinking and SLA.....	157
Summary and implications of Section 5.2.....	163
5.3 SLA and the communities of the participants	163
Summary and implications of Section 5.3	169
5.4 Extra-linguistic elements of academic English competence: The use of genre knowledge.....	169
5.4.1 Achieving textual coherence	170
5.4.2 Expressing criticality	181
5.4.3 Expressing logicity	184
Summary and implications of Section 5.4.....	188
5.5 Conclusion.....	189
6 DISCUSSION OF THE FINDINGS	190
6.0 Overview	190
6.1 The research questions and a summary of the findings.....	191
6.2 Reconsidering the ontology and epistemology of second language speakers.....	194
6.2.1 The mind and cognition.....	194
6.2.2 Thought-language relation.....	198
6.2.2.1 Issue 1: Ontological contingency of thought on a particular language and culture	199
6.2.2.2 Issue 2: Language to regulate thought.....	201
6.2.2.3 Issue 3: The unlikelihood of second language speakers being able to think in L2	204
6.2.3 Knowledge developed through undertaking the LR.....	205

Summary and implications of Section 6.2	209
6.3 Understanding the nature of SLA in an English medium academic context	210
6.3.1 Mechanisms of SLA occurring with knowledge development	210
6.3.1.1 SLA and transcending cognitive acts in the process of negotiating the meaning	211
6.3.1.2 SLA and hierarchical thought-language operation	216
6.3.1.3 SLA and intersubjectivity with other community members	220
6.3.2 The scope and nature of SLA and competence in using academic English	223
Summary and implications of Section 6.3	229
6.4 Conclusion	230
7 CONCLUSION.....	231
7.0 Overview	231
7.1 Key arguments in the discussion of the findings	231
7.2 Limitations of the study	233
7.3 Implications of the study	234
7.3.1 Theoretical implications.....	234
7.3.2 Methodological implications.....	237
7.3.3 Pedagogical implications	239
7.4 Closing remarks with suggestions for future research	241
REFERENCES.....	242
APPENDICES	259
List of Appendices	259
Appendix A: Research Ethics Approval	260
Appendix B: PhD Student Participant Informed Consent.....	261
Appendix C: Supervisor Participant Informed Consent.....	264
Appendix D: Peer Review Participant Informed Consent	267
Appendix E: The First Interview Schedule	268
Appendix F: The Last Interview Schedule.....	269
Appendix G: An Example of Three-column Tables of Data Analysis	270
Appendix H: An Example of the Tables of Grouping of Subordinate Themes into Superordinate Themes	271

Appendix I: An Example of the Tables of Communal Pattern Identification
across the Four Core Participants272
Appendix J: Examples of the Analysis of the Final Literature Review Text ..273

LIST OF TABLES AND FIGURES

LIST OF TABLES

Table 3.1: Cognitive genre model.....	73
Table 4.1: The bibliographic information and data collection period of the four core participants	97
Table 4.2: The bibliographic information and data collection period of the four peripheral participants.....	97
Table 4.3: The comparison between the participants' professions and preliminary research topics.....	98
Table 4.4: Interviews with the four core participants	104
Table 4.5: Interviews with the four core participants	104
Table 4.6: Supplementary data from the four core participants.....	106
Table 4.7: Supplementary data from the four peripheral participants	107
Table 5.1: The numbers of CGs, section headings and instances of metatext....	171
Table 5.2: Evaluative attitude markers in the LR texts of the five participants..	182

LIST OF FIGURES

Figure 3.1: P2's perceptual cycle during the negotiation of meaning	66
Figure 3.2: The relationship between extra-linguistic and linguistic knowledge and its operation.....	71
Figure 5.1: Thought and academic English in academic knowledge.....	136
Figure 6.1: The first round of the perceptual cycle during the negotiation of meaning.....	213
Figure 6.2: The first round of the perceptual cycle with new language sources.	214
Figure 6.3: A round in the recurrent perceptual cycle involving language acquisitional processing	215

Figure 6.4: The SLA of the participants occurring with expressing thought in text	216
Figure 6.5: SLA by the participants in terms of its scope and thought and language in their minds	228

1 INTRODUCTION

This study explores the nature of second language acquisition (hereafter SLA) of eight doctoral students in the context of developing disciplinary knowledge while undertaking a preliminary literature review (hereafter LR). The investigation is underpinned by the *phenomenological realist* perspective, and the significance of employing this philosophical orientation as the research paradigm is twofold. Firstly, it provides the basis for my own approach as the researcher to examining the SLA of the participants. It also provides a framework for understanding the epistemological approaches of the participants, through which their SLA occurs.

In this chapter, I discuss the intentions of the study, briefly introduce phenomenological realism, and present the research objectives and the structure of the thesis.

1.1 Intentions of the study

This section introduces the motivation for the study and then outlines the broad intentions of the research.

My motivation for undertaking doctoral research in the area of SLA and selection of the research topic and context arise from my own personal experience as a second language user of English and from the fact that, for me personally, SLA has been the most intriguing subject area. Yet my choices relating to the methodological approach and inclusion of extra-linguistic knowledge were made against the background of the *social, cultural* orientation to the field of SLA, which began to be evident in the 1990s. This new SLA stream has added new dimensions to the scope and methodological approaches of the discipline (Atkinson, 2011c; Block, 2003; Firth & Wagner, 1997/2007; Lantolf, 1996). Most significantly, while cognitivist researchers restricted their focus to linguistic knowledge (e.g., Doughty & Long, 2003), social, cultural researchers emphasise the need for “examining not only linguistic development, but also the other forms of knowledge” in specific social, cultural contexts (Duff & Talmy, 2011). Another new feature that the social, cultural strand has brought into the field involves valuing qualitative data from natural language learning-and-use contexts over

quantitative data from experimental settings (Duff, 2008a; Firth & Wagner, 1997/2007).

Thus, for example, in examining the nature of SLA, my research project includes consideration of the development of non-linguistic types of knowledge relevant to language use as a way of offering insights for theorising language acquisition. I also came to think that, in investigating my research topic, qualitative data constitute a richer resource when compared with quantitative data. In addition, the social, cultural SLA researchers' resistance to the paradigms of the other SLA schools of thought – *behaviourism* and *cognitivism* is also reflected in the present study (see Chapter 2 for a detailed discussion of the three SLA schools of thought).

Richards (2003) notes, “fundamental beliefs about the world” are inseparably related to the “understanding of the nature of the inquiry itself” (p. 29).

Developing and carrying out my research, however, I found that it was not possible to align my *realist* worldview with the philosophical belief and research paradigm that the approaches to SLA within the social, cultural stream broadly subscribe to. While acknowledging the influences of the social approaches on the present study, my realist ontology and epistemology led me to question the theories and research findings of SLA offered by the social cultural approaches. In particular, I found myself resisting the social, cultural conception of the nature of the mind, and cognition and the principles of SLA. Gradually, it has become the central intention of the study to examine carefully and problematize the social, cultural paradigm and research studies, then alternatively seek to elucidate further the nature of SLA through examining the SLA of the participants of the study from a phenomenological realist perspective.

The particular paradigm that underpins the social, cultural approaches to SLA can be identified as *postmodernism* in a sense that it has emerged through opposing the *modernist* paradigm of cognitivism (see Atkinson, 2011a; Lantolf, 1996; Rampton, 1997). It is also known as *social constructivism* because of its claim that human consciousness (mind), cognition, truths, realities, meanings and knowledge are all socially constructed through the interactive use of language in social, cultural contexts (Block, 2003; Firth & Wagner, 1997/2007; Johnson, 2004). It is also considered as *cultural, linguistic relativism* for it suggests that, by being co-constructed in specific social, cultural contexts, knowledge, truths and

meanings are all culturally relative (Kramsch, 2004; Lantolf & Thorne, 2006). In addition, *poststructuralism* is also applied to refer to this paradigm of social cultural SLA stream, when their view that “reality is not only socially constructed and socially distributed; it is irreducibly multiple, intersubjective, discursively constituted” is emphasised (Ortega, 2009, p. 218).

Thus, based on this multiply-defined research paradigm, social, cultural researchers claim that the ontology of the second language speaker, including the mind, cognition and knowledge of second language, “originates in social interaction and is shaped by cultural and socio-political processes” (Watson-Gegeo, 2004, p. 331). With this ontological conception, these researchers seek to explain the person’s perspectives, beliefs, attitude, behaviours or performances relating to second language learning and use as consequences of the influence of social, cultural factors (Block, 2003). They also attempt to infer how the speaker’s cognition and competence in using language emerges from social interactions (e.g., Kasper & Wagner, 2011). In addition, it is also broadly agreed by the social, cultural approaches that SLA should be understood as socialisation into a particular culture or discourse community (Duff & Talmy, 2011), and the ultimate goal of SLA is being able to regulate thought by means of the second language (Lantolf & Thorne, 2006). When following this social, cultural notion, SLA (and any language acquisition) suggests that the fragmented, multiple identities of the speaker to be socially constructed (Norton, 2000).

Certainly, second language users are social beings who interact with others, and are in constant contact with the outside world, and are constrained and influenced by it. Nevertheless, a number of scholars caution that the ontology of a person cannot be reduced to the level of a social or discourse product (e.g., Burr, 2003; Craib, 1997; Cromby & Nightingale, 1999; Moreland & Rae, 2000; Smith, Flowers, & Larkin, 2009; Willard, 2007; Willig, 2003, 2008). The social, cultural approaches appear unable to explain adequately how language learners selectively respond to external contextual factors, including social interactions and relations, and how they eventually relate them to their own language learning. That is, their concepts of the human mind and cognition seem to provide insufficient accounts of how individuals make their own volitional choices and decisions in relation to their second language learning, especially if one accepts the premise that language learning or acquisition could involve a greater range of types of knowledge and

skills beyond these that relate to being socialised into a particular culture/community. Moreover, although language influences one's ways of thinking, it needs to be questioned if such influence of language on thought sufficiently supports the idea that language completely regulates thought. As an alternative view, some scholars suggest that thought and language are hierarchically related in the mind, and thought regulates linguistic choices (e.g., Bruce, 2008a; Husserl, 1970; Pinker, 1994; Widdowson, 2007). Interrelation of these issues is essential to understanding the nature of SLA, and is addressed carefully throughout this thesis.

Furthermore, the resistance to the social cultural paradigm also has led me to examine a strong presumption in applied linguistics that any researcher in the field who chooses qualitative, natural inquiry would follow a social constructivist approach (see Croker, 2009). Eventually, I came to see that associating qualitative research only with a certain paradigm is problematic, since the terms "qualitative" and "quantitative" indicate types of data, which are the consequences of researchers' choice of a particular paradigm or theoretical framework (Cohen, Manion, & Morrison, 2000; Crotty, 1998; Mackey & Gass, 2012; Willig, 2008). In effect, using qualitative data for research studies originates from the phenomenological tradition founded by Edmund Husserl, which appears to differ somewhat from the social constructivist paradigm (Westberry, 2009, p. 93). Therefore, the idea that any qualitative, naturalistic inquiry should always involve the social constructivist research paradigm as an essential element is also called into question in the present study.

1.2 Contrasting phenomenological realism with social constructivism in relation to the issue of value-laden knowledge

This section briefly discusses the phenomenological realist paradigm of the study in order to articulate a preliminary understanding of it. Particularly, I contrast it with social constructivism in relation to the issue of the nature of knowledge being value-laden.

Phenomenological realism, for which I also use the term realism interchangeably throughout this thesis, is a philosophical school of thought that originates from the philosopher, Edmund Husserl (B. Smith & Woodruff Smith, 1995). As indicated in its name, the principal axiom of phenomenological realism is that human

beings have potentiality and capacity to know the world as it is through their experiences. The Husserlian realist, Willard (2003a), states:

By “realism” I refer to the view that whatever exists does so, and has whatever properties and relations it actually has, regardless of whether or not it is present to any mind. This is meant to include the view that the objects given in knowledge, not just in consciousness, exist and have the qualities and relations they are then known to have, in total independence of their being known. A necessary condition of realism is that neither the existence nor the properties of entities derive from their being an object for some thought, perception or reference bearing upon them (p. 163).

The independence of the *known*, or the *object* of knowledge from the *knower's* mind, which Willard emphasises above, provides the foundation for the *objectivity* of knowledge, or knowledge itself (Kukla, 2006; Willard, 1982). However, a point that I raise here is that, by stating the objectivity of knowledge, phenomenological realism does not suggest that knowledge is value-free. The concept of the objectivity of knowledge centrally suggests that the knower's act of knowing does not change the nature and quality of the known, and then the knower can know progressively the known, as it is, when certain conditions are met (see Chapter 3, Section 3.1.4 for a review of Husserl's notions about the objectivity of knowledge and the three conditions for knowledge).

In fact, how knowledge can be legitimately value-laden seems to be understood more clearly from the phenomenological realist view than from the social constructivist standpoint. From the realist perspective, value judgements about the objects of knowing, such as things, states of affair, or existing theories, as good/bad, fair/unfair, right/wrong, true/false, realistic/unrealistic or useful/useless should accompany an accurate understanding of such objects of knowledge. That is, the values that the knower attached to the objects of knowing can be potentially valid and reasonable only when they are based on correct knowledge of the qualities and relations of the objects, otherwise they may be considered to be biased. This is extensively experienced in day-to-day living, and the first step of finding out the validity and credibility of a value embedded in a piece of knowledge is to see whether or not the knowledge, on which any value judgement is based, is true or fallacious.

In contrast, there appear to be problems with the social constructivist's notion of knowledge being value-laden. For example, according to the social constructivist,

a knower can never access the object of knowledge (Lincoln & Guba, 1985). Knowledge is thus not what represents and corresponds to the actual qualities and relations of the object of knowing, but rather “the form of multiple, intangible mental constructions” (Guba & Lincoln, 1998, p. 206). Thus, knowledge is not knowledge of the object of knowing, but knowledge of something else that the knower(s) have linguistically constructed and construed (e.g., Lantolf & Thorne, 2006; Lave & Wenger, 1991). Following this idea of knowledge, what the knower attaches values to is not the object of knowing but a mental construct that has been socially or individually constructed. This would appear to raise questions in relation to the reliability and validity of values in knowledge, and of the knowledge itself.

This contrast between the realist paradigm of this study and social constructivism is extensively discussed throughout the thesis, particularly in relation to establishing the conceptual framework and discussing the finding of the study.

1.3 The research objectives

The present study aims to investigate the nature of the SLA of eight international PhD students in a New Zealand university in relation to their cognitive and epistemological dispositions and approaches to the target literature while preparing and writing the literature review for their full thesis proposal. In order to achieve this core objective, a conceptual framework is established centrally drawing on Husserl’s realist ontology and epistemology, Widdowson’s (1983, 1990) concept of language acquisition through the *negotiation of meaning*, and Bruce’s (2008a) theory of *genre knowledge*. *Interpretative phenomenological analysis* is used as the overarching methodology (see Chapter 4), and an analysis of the LR sections in five participants’ research proposals is undertaken.

The overall research question with which I seek to address the research objectives is:

What is the nature of the second language acquisition (SLA) of eight PhD students while undertaking the literature review (LR) in English, their second language, during the period of preparing the research proposal at a New Zealand university?

The four subsidiary questions are:

- 1. What are the central cognitive dispositions and processes that characterise the participants' approaches to developing academic knowledge while undertaking the LR?*
- 2. To what extent is the SLA of the participants understood in relation to their cognitive dispositions and processes characterised in reviewing the target literature and research planning?*
- 3. To what extent is the involvement of the participants' communities facilitative of their SLA?*
- 4. In what ways is the use of prototypical thought-structuring patterns important and (thus) is indicated as part of academic English competence?*

1.4 The structure of the thesis

The thesis consists of seven chapters including the present introduction chapter.

Chapter 2 presents a critical review of three streams of SLA research, namely behaviourism, cognitivism and the social, cultural stream in terms of their philosophical beliefs, methodological approaches and theoretical implications. The focus of the review is on the contributions and limitations of the three SLA streams, particularly on those of the social stream, in order to clarify how the present study is similar to and diverges from previous studies, and to identify in what ways this study contributes to the field of SLA.

Chapter 3 establishes the conceptual framework of the study. For the philosophical and theoretical foundation, I draw on Husserl's (1970) theory of knowledge. The chapter then reviews theories and concepts that are necessary to examine the nature of SLA in relation to the development of overall academic knowledge in an English medium academic context. In addition, I also discuss issues central to understanding second language speakers, such as the concepts of criticality and competence in language use.

Chapter 4 introduces the methodology of the present study. It presents an introduction to interpretative phenomenological analysis (hereafter IPA) (Smith et al., 2009), the overall methodological approach of the study, the rationale for the critical use of IPA, the procedures of data collection, analysis and reporting findings, and a discussion of the quality and validity of the study.

Chapter 5 reports the findings of the study emerging as the interpretation of the data, which consist of the participants' own accounts (interviews) and materials that they produced while undertaking the LR. The sections of this chapter address the four subsidiary questions respectively.

Chapter 6 discusses the findings of the study reported in Chapter 5, in the light of the conceptual framework established in Chapter 3. Here I seek to clarify the nature of the mental faculties and epistemological dispositions of the participants, and the nature of their SLA and some issues involved SLA in English-medium academic contexts.

Chapter 7 concludes the thesis. It summarises the key arguments of the study emerging from the discussion of the findings, discusses the limitations and the implications of the present study, and finally suggests some future research directions.

1.5 Defining central concepts

This section seeks to articulate the definitions of the concepts central to this present study in order to clarify descriptions and discussions throughout the thesis.

- the (conscious) *mind of a person* : the mental faculty that constitutes the core of the personhood as non-material substance and (thus) accounts for mental acts of knowing, understanding, “perceiving, desiring, remembering, fearing, loving, doubting, judging and even dreaming or day-dreaming” (Woodruff Smith & McIntyre, 1982, p. xiii). It acts through the function of the brain but it is not the function of the brain itself; it has certain qualities, such as being conscious of his/her own mental states and acts, exercising freewill, or being aware of morality/immorality, which cannot be reduced to the neural and chemical activities of the brain (Chalmers, 2010; Custance, 1980; Davis, 1983; Eccles, 1982, 1994; Kelly et al., 2007; Lewin, 1992; Nagel, 2012; Plantinga, 2011; Stapp, 2007; Trefil, 1996). Instead, the mind is rather what is in charge of the brain operation (Eccles, 1982, 1994).
- *cognition*: a collective term for the mental acts or processes of the mind listed above
- *intentionality*: the *directedness*” (*aboutness* or *ofness*) of the conscious mind (Woodruff Smith & McIntyre, 1982). According to Husserl (1970), because

of the intentionality of the mind, the person is able to engage with the world and attain experiences and knowledge

- *transcendence of the mind* or *transcending quality of the mind*: This refers to mental state or capability to perceive or intuit things/states of affairs/events/concepts as they are beyond cultural/linguistic frames. Therefore, the cognising cycle in the process of knowing takes place between mental representations and the object of knowledge, through which the knower potentially can know the object as it is (Husserl, 1970).
- *thought*: mental content; the flow of intentional mental images or states. A thought can be expressed in language, but thought is fundamentally not linguistic, and a person can think without using language. A thought can arise from perception, or from thinking of some other thoughts (Moreland & Rae, 2000; Willard, 1984).
- *academic English competence*: knowledge of and ability to use procedural and systemic resources of academic English
- *second language acquisition* (SLA) in an English-medium academic context: developing competence in using academic English as a second language: acquiring knowledge of and developing ability to use procedural and systemic resources of the language

2 BEYOND THREE PARADIGMS IN THE STUDY OF SECOND LANGUAGE ACQUISITION

2.0 Overview: Three paradigms in the study of SLA

Rationale for reviewing the three streams of SLA

This chapter presents a review of three schools of thought in the study of second language acquisition (hereafter SLA), *behaviourism*, *cognitivism* and the *social, cultural stream*. The present study, as SLA research, is a “tiny dwarf on the shoulders of giants”, in the sense that it would not exist without the foundation of extant theoretical perspectives and empirical SLA studies. In particular, the selection of the research topic and methodology has been made under the influence of the social, cultural stream. Nevertheless, as stated in the introductory chapter, the philosophical standpoint of this present study is fundamentally different from any of the paradigms of the three SLA streams. Therefore, the review is primarily aimed to demonstrate that my awareness of this difference has emerged from a developing understanding of the three schools of thought. This has required me to illustrate extensively their philosophical beliefs, theoretical underpinnings and approaches to investigating second language learning. In addition, I also critically examine each of the three paradigms, in order to share with the reader how the position of this present study and those of the three streams are different, and clarify the extent to which the present study draws upon the previous literature in the field of SLA.

Three paradigms in SLA: Behaviourism, cognitivism and the social stream

The study of SLA began to develop in the 1940s drawing on behavioural psychology and general theories of learning (Brown, 2007). At that time, behaviourism was practically the sole SLA theory of learning and was unchallenged by other competing traditions for two or three decades. Under this tradition, SLA was conceptualised as verbal habit formation (see Section 2.1.1). However, from the 1960s, behaviourism was gradually replaced by cognitivism, which sought to understand SLA in terms of changes in the mental states and processes underpinning such changes (see Section 2.1.2). The cognitivist paradigm then dominated the study of SLA, and still largely maintains the position of being the “mainstream” of SLA (Atkinson, 2011a, p. 16). However,

when Firth and Wagner(1997/2007) perceived an “imbalance in SLA research practices” (p. 758), and when Lantolf (1996) published his paper entitled, “Letting all the flowers bloom”, challenges to the dominance of cognitivism in the field of SLA were signalled. This third group has been referred to as proposing social, cultural orientations to investigate SLA (Firth & Wagner, 1997/2007, p. 757). Atkinson (2011a) emphasises that this third theoretical approach is not one approach but in fact a body of diverse approaches. However, as he also acknowledges, the different approaches of the members of this group subscribe to several common beliefs about the nature of truth, knowledge, reality, mind, identity and language. These axiomatic beliefs shared by social, cultural SLA scholars are *postmodern*, in a broad sense that it began to form from resisting the *modernist* basis of the cognitivist approach to SLA (Atkinson, 2011a; Lantolf, 1996; Rampton, 1997). More specifically, they represent the paradigm of *social constructivism* that assumes the reality in the human realm is socially constructed (Block, 2003; Ortega, 2009).

Overview of the chapter

This chapter allocates more space to the social, cultural stream than to behaviourism and cognitivism for the reason that the work of the former has more significant implications for the present study than that of the others. Section 2.1 reviews the basis of both the behaviourist and cognitivist approaches to SLA. This section firstly describes their philosophical and methodological backgrounds, major theoretical positions and concepts, then reviews and comments on critiques of these two important SLA traditions. Section 2.2, then considers the social, cultural orientations to SLA. After identifying six different approaches from this third SLA tradition, this section considers their philosophical background, and then provides a more detailed review of each of the different social and cultural approaches. The review of the three SLA streams involves critical comments on their concepts and notions, based on the paradigmatic position and perspective underpinning this present study.

2.1 Behaviourism and cognitivism

2.1.1 Behaviourism

Philosophical background and research principles

The behaviouristic approach to SLA has its roots in the work of behaviourist psychologists active from the 1920s to the 1950s, psychologists such as Watson, Thorndike, and Skinner (Ellis, 2008). It is also closely associated with structural linguistics, exemplified in the work of Bloomfield, Sapir and Twaddell (Brown, 2007). The philosophical background of the behaviouristic tradition and structural linguistics is *empiricism*, which Francis Bacon initially propounded in the 17th century, inspired by the scientific revolution at his time (Jordan, 2004).

Empiricism is a philosophical belief that any reliable, scientific knowledge can be obtained only through physically perceivable data, that is, through observation (Willig, 2008). For example, a recent empiricist psychologist, A. F. Chalmers (1999), stated, “[K]nowledge should be derived from the facts of experience” (p. 3). Considering A. F. Chalmers’ comment in the context of SLA, the “experience” refers only to what the researcher physically sees. The existence of any mental phenomena, such as mind, spirit or soul, was discounted. Twaddell (1935) asserted:

Whatever our attitude toward mind, spirit, soul, etc. as realities, we must agree that the scientist proceeds as though there were no such things, as though all his information were acquired through processes of his physiological nervous system. In so far as he occupies himself with psychical, non-material forces, the scientist is not a scientist. The scientific method is quite simply the convention that mind does not exist. (p. 9)

Following this empiricist point of view, behaviourist SLA researchers constructed their theories dependent on inductive data collection methods, most typically, observing the structures of different languages and language learners’ behaviours (Brown, 2007; Johnson, 2004; Jordan, 2004).

Language learning as habit formation

Behaviouristic SLA researchers and practitioners saw the process of language learning as the same as that of learning in general, which consists of habit formation reinforced through a repetitious stimuli-response process (Johnson, 2004; Mitchell & Myles, 2004). They drew on principles of structural linguistics, such as proposed by Bloomfield (1933, pp. 29-31), who theorised first language

acquisition in terms of the stimulus-response learning principle and behavioural psychology, such as proposed by Skinner (1957). Thus, following the emphasis of structural linguistics on the spoken forms of language considered as “the primary medium of language”, the behaviourist SLA scholars designed teaching methods to reinforce speaking skills through oral repetition and memorisation of sentence patterns (J. C. Richards & Rogers, 2001, p. 55). For example, Fries developed so called the ‘Michigan Method’ of teaching foreign languages, which is now known as the *audio-lingual method* (Larsen-Freeman, 2000).

The behaviourist approach to SLA also paid considerable attention to the role of first language on second language habit-forming. According to behaviourist researchers, the transfer of the first language works negatively or positively for second language learning, depending on the similarities and differences of the structures of the learner’s first and second languages (Lado, 1957). This idea was based on the structural linguistic explanation of language: language can be identified with its overtly observable structural features, and subsequently, “languages can differ from each other without limit” (Brown, 2007, p. 9). As Lado (1957) explains:

We have here the major source of difficulty or ease in learning the structure of a foreign language. Those structures that are similar... will be transferred and may function satisfactorily... Those structures that are different... will not function satisfactorily in the foreign language and will therefore have to be changed. (p. 59)

Aiming to promote effective second language teaching and learning, Lado (1957) attempted to develop a set of systematic procedures to compare and contrast the learner’s first and second languages. This comparison of languages is referred to as *contrastive analysis* (CA). Lado suggested five dimensions of language comparison, which are systems of sound, grammar, vocabulary, writing and cultures. Through CA, two versions of *contrastive analysis hypothesis* (CAH) were developed. The strong version aimed to predict (and thus prevent) errors that will occur based on the first and second language comparison (Ellis, 2008), while the weak hypothesis was to analyse (and thus fix) the learner’s actual recurring errors (Gass & Selinker, 2001).

Critiques of the behaviourist SLA tradition

Prior to pointing out their limitations, the positive contributions of the behaviourist SLA research to the field of second language teaching and learning should be acknowledged. Researchers and theorists from this stream must be credited with beginning the serious study of how second languages are learnt, and with pioneering the study of SLA as an autonomous academic field. Behaviourism also explains some aspects of language acquisition, both first and second, and has some contribution to second language pedagogy. However, behaviourism was fundamentally criticised because of its philosophical beliefs, and in particular, its attachment to empirical study of observable behaviour, which completely disregards the mental processes related to language learning. An initial, powerful critique that resulted in the discrediting of the behaviourist approach to SLA came from Chomsky (1959), which seems to be still considered valid by current theorists (Brown, 2007; de Bot, Lowie, & Verspoor, 2005; Lightbown & Spada, 2006; Mitchell & Myles, 2004). Chomsky's (1959) critical review of Skinner (1957) identifies the following problems that undermine the behaviouristic notion of language acquisition:

- the behaviourist theories of human verbal behaviour were established drawing on “analogy to laboratory study of lower organisms” (p. 39), rather than real human behaviour;
- human beings act even when sufficient stimuli (feedback) are not given: for example, children can acquire the complex system of a language even when being exposed to a minimal repertoire of the language;
- language learning involves mental activities such as generalising, hypothesising and understanding highly complex information, which cannot be explained by the idea of habit formation; and,
- children create and understand new, unlearnt (not-imitated) utterances.

In addition to Chomsky's critique, the results of subsequent research, such as error analysis (EA) studies that particularly challenged CAH, suggest that second language knowledge and behaviours are not predicted precisely by the first and second language comparison (Long & Sato, 1984). More recently, Johnson (2004) has also argued that the behaviourist approach ignored important factors relating

to SLA, factors such as the learner's own feelings, intuitions and understandings of their learning experiences.

2.1.2 Cognitivism

Philosophical and methodological backgrounds

The philosophical view of the cognitive approach to SLA traces its origin back to René Descartes in the 17th century, who had a strong faith in the power of the human mind for logical thinking and reasoning (Jordan, 2004). This philosophical tradition influenced by Descartes is knowledge as rationalism, and “rationalism and empiricism (the philosophical basis of behaviourism) were mutually exclusive” (p. 81). Jordan argues that:

[r]ationalism was based on the assertion that knowledge of the world is gained by the working of the intellect, reasoning from assumptions to conclusions, with various rules of logic and language to guide the process. Empiricism, on the other hand, was based on the assertion that knowledge of the world is derived from observing actual events in the real world. (p. 81)

That is, the rationalist belief is that deductive reasoning from hypotheses to results through logic and language is the way to develop knowledge. Two main 20th century scholars who established the methodological foundation of cognitivism based on the rationalist beliefs were Karl Popper and William W. Bartley (Jordan, 2004). Overall, it is suggested that researchers attempt to strengthen and improve the theory through following empirical and experimental studies, to gain objective knowledge of the world through the lens of a particular theory, which is still open to falsifications and critiques.

SLA as cognitive science

Chomsky's theoretical arguments played an important role in proposing that SLA was a mental phenomenon although later the majority of cognitive SLA researchers rejected his belief in the existence of an inborn language predisposition in humans (first termed the *language acquisition device* and later the *universal grammar*) (Brown, 2007; Johnson 2004; Lightbown & Spada, 2006). Researchers following the cognitive approach make it clear that SLA is “a branch of cognitive science” (Doughty & Long, 2003, p. 4), and that the study of language acquisition is concerned with changes of linguistic systems in the learners' mind (Doughty & Long, 2003; Gass, 1998; Selinker, 1972; Skehan,

1998). The central purpose of the cognitive-oriented enquiries in SLA is to inform teaching and learning by uncovering brain functions, cognitive processes, factors and variables that relate to the acquisition of linguistic items and *interlanguage* development (see Norris & Ortega, 2000). Taking up the rationalist methodological frameworks, cognitivist research studies use psychometric methods yielding quantitative data. For example, (Ellis et al., 2009) states: “[e]stablishing the means for measuring” L2 knowledge as a way to attest the change in L2 knowledge system is also one of main interests of the researchers in this position (p. 27).

Use of a computing metaphor for the mind and explicit/implicit linguistic knowledge

One of the central theoretical features of this tradition is to explain the human mind and language acquisition by means of the metaphors of the *information processing* of computer, reflected in the use of such terms as *input* and *output* (van Patten, 2004; Skehan, 1998). For example, Skehan (1998) stated:

We have seen how information-processing models are helpful in separating the different stages [of second language acquisition] concerned (input, central processing, output), and in providing an organizing framework for more detailed discussion of the functioning of each separate stage. (p. 73)

The principal framework of the cognitive approach consists of well-known constructs, such as native speakers (NSs) and non-native speakers (NNSs) and the notion of second language learners’ development of an interlanguage system (Selinker, 1972). The interlanguage system of the non-native speaker of a language is seen as being constantly revised by the learner forming, testing and refining hypotheses, as they move toward the system of the native speaker of the language. With this conceptual framework, and on the basis of what is observable – input (what one is exposed to) and output (what one produces), different models have been established to infer what is not observable – the human mind’s language acquisitional process described in terms of the *black box* metaphor (Long, 1980).

Researchers in this tradition are also particularly concerned with the distinction between *acquisition* and *learning* (Ellis et al., 2009; Krashen, 1981). According to Krashen (1981), acquisition takes place spontaneously and incidentally during

natural language use and mostly resulting in *implicit knowledge* with which one automatically uses language without purposeful effort to recall the knowledge. On the other hand, learning refers to the process that mostly produces *explicit knowledge*, the conscious memory that people purposefully recall to understand and control their language behaviour (Ellis, 2008). Certain researchers in this tradition, such as Krashen, view acquisition and implicit knowledge as more desirable and ideal than conscious learning and explicit knowledge. However, others have employed both concepts to understand some second language learning variations, such as second language or foreign language environments, formal and informal learning, or age differences (DeKeyser, 2003). They also attempted to examine the interface between the different types of linguistic knowledge, and discover how these variables may relate to the development of second language competence (Ellis et al., 2009; Skehan, 1998).

Critiques of cognitivism

Cognitivism has been criticised by social, cultural researchers who find their basis in different philosophical assumptions. Firstly, the focus of this cognitive research tradition, which is primarily on the acquisition of discrete grammar rules, has been questioned. This emphasis on micro-level linguistic features is considered to fail to operationalize all of the elements of successful language use by second language users (Johnson, 2004), and does not adequately explain the development of the second language speaker's overall competence to use a second language (Kramsch, 1993). In addition, social, cultural researchers contend that cognitivist researchers discount the role of social, cultural contexts, and reduce the role of other people surrounding the second language speaker to that of only triggering input and providing opportunities for output. Thus, each individual learner is depicted as a closed, internal mechanism (in terms of the computing metaphor), isolated from social cultural contexts and other people (Atkinson, Churchill, Nishino, & Okada, 2007; Firth & Wagner, 1997/2007; Johnson, 2004). Recently, cognitivist researchers acknowledge the critiques on their insufficient attention to the social aspects of language learning, and seek to embrace the social into the framework of their research (e.g., Mackey & Goo, 2007; Mackey & Polio, 2009; Philp & Mackey, 2010).

Another problematic issue concerning cognitivism relates to its three central concepts – the dichotomy of the native speaker (NS) / non-native speaker (NNS), the language learner and interlanguage (Kramsch & Whiteside, 2007). Firth and Wagner (1997/2007) strongly argue against the oppositional binaries of NS and NNS. They point out that these two dichotomising constructs provide a deficit view of second language speakers of a language as ever-deficient and inferior to L1 speakers. That is, “a NS is assumed unproblematically to be a person with a mother tongue, acquired from birth” while a NNS “as a defective communicator”. In addition, they note that identifying L2 speakers as ‘learners’ may imply that their L2 competence is underdeveloped and they are not sufficiently competent users of the language, and “[t]he L2 system of speakers is at the “transitional phase”, always “on the move” toward NS competence as the target (2007, p. 764).

Summary and implications of Section 2.1

The review of the behaviourist and cognitivist schools of thought in the study of SLA in Sections 2.1 and 2.2 offers a glimpse of how these two traditions theorised and conceptualised SLA along with the challenges that both approaches have stimulated. My research is opposed to the central tenet of behaviourism that disregards the existence of psychological mental phenomena, for the reason that they are not physically observable. As will be discussed in Chapter 3 in greater detail, I adhere to the phenomenological realist beliefs that suggest the human mind and cognition are as real as any physical, material phenomena, and consider that exploring psychological processes is essential in understanding SLA.

In this regard, I acknowledge that the cognitivist SLA researchers’ view of cognitive processes as central to SLA has a significant strength, bringing to light what behaviourism omitted into the study of SLA. However, the concepts of cognition, mind and mental processes that cognitivism proposes differ considerably from those of my research. To indicate how my research approach distinguishes its conceptualisation of mind from that of cognitivism, I present Searle’s (1992) statement:

[Cognitivism supposes] that computation is an intrinsic feature of the world and that consciousness and intentionality are somehow eliminable...or reducible to something more basic, such as computation. ... I argue that [c]onsciousness and intentionality are intrinsic and ineliminable. (p. xiii)

Thus, I argue that SLA processes are complex, broad and multi-layered so that they are not simply understood by means of the computer metaphor of the cognitivist approach. Particularly, the language processes in the human mind involve not just syntactical operations but more importantly the comprehension and expression of meanings that the computer is never capable of. In addition, when saying that SLA is cognitive process, it does not mean that it is isolated from social and cultural contexts. Rather, based on the notion that cognition is embodied and directed toward the world outside (Husserl, 1970; Woodruff Smith & McIntyre, 1982), I consider that an SLA should be researched and explained in relation to the social, cultural context where it occurs. Moreover, it is questionable if SLA can be sufficiently understood when solely focusing on the speaker's linguistic knowledge. Rather, this present study considers that the study of SLA needs to be concerned with how the speaker "integrate[s] a wide range of different types of knowledge in order to...[learn and use language] that is both linguistically accurate and socially appropriate (Bruce, 2008a, p. 1).

2.2 Social, cultural SLA stream

2.2.1 Diverse approaches in the social, cultural SLA stream

The first *Focus Issue* of the *Modern Language Journal* (hereafter *MLJ*) in 2007 addressed a debate among researchers in the study of SLA, which had begun a decade earlier between two different streams – cognitivism and the social cultural orientations. By re-presenting Firth and Wagner's 1997 paper, this *Focus Issue* of *MLJ* firstly reminded readers that the argument is still ongoing. It then gave voice to the social, cultural strands of SLA research. In a work by Atkinson (2011c), researchers from most of these social, cultural SLA strands were given opportunity to restate their own positions. They are the:

- *sociocultural approach* (hereafter SCT);
- *complexity theory approach*;
- *sociocognitive approach*;
- *identity approach*;
- *language socialisation approach* (hereafter LS); and,
- *conversation-analytic approach* (hereafter CA).

In addition to these six approaches that Atkinson (2011c) presents, *the ecology approach* that also appeared in the 2007 debate can be counted as a social cultural

approach. Although, in most cases, I allocate one section to each approach, I combine the reviews of the complexity theory, sociocognitive and ecology approaches in one section (Section 2.2.5) for the reason that they share much in common with each other by employing the notion of *ecology*.

A common attitude of these socially oriented researchers is a welcoming and celebrating of the diversity of the study of SLA, diversity being seen as a positive, healthy indicator of the advancement of the field (e.g., Johnson, 2004; Lantolf, 1996; Swain & Deters, 2007). The openness and tolerance toward other research approaches that social and cultural strands exhibit, however, mostly seems to extend toward other approaches within the social cultural paradigm, which identifies them as one collective SLA stream (see Block, 2003; Lantolf, 1996).

2.2.2 Philosophical beliefs among the social, cultural approaches

To identify the philosophical, axiomatic beliefs about the nature of reality, truth, the human mind and cognition, knowledge and language that the social cultural approaches broadly agree with, different terms have been employed: *postmodernism* (Rampton, 1995, 1997), *linguistic (cultural) relativism* (Kramsch, 2004; Lantolf, 1996), *(social) constructivism* (Block, 2003; Ortega, 2009), or *poststructuralism* (Pennycook, 2001; Ortega, 2009). The number of these different constructs related to different aspects of the postmodern philosophy shared by the social, cultural approaches to SLA seems to be partially due to its nature of defying clarity and orderliness, which characterises it as allusive, indeterminate and at times self-contradictory (see Alvesson, 2002). In addition, this philosophical trend began as a movement to “a questioning of and rejection of the fundamental assumptions of modernism” (Burr, 2003, p. 10), throughout which a number of theorists developed their own philosophical systems. Bourdieu, Derrida, Edwards and Potter, Foucault, Lincoln and Guba and neo-Vygotskians, such as Engeström appear to be some of those thinkers from whom these social, cultural SLA approaches find their intellectual orientations.

When I review and discuss the social, cultural approaches, I use the names above that refer to their philosophical basis, depending on the emphases made by researchers themselves. However, I use the term of social constructivism most for the reason that the term represents clearly the worldview of the studies from this stream (e.g., Clark & Gieve, 2006; Donato, 1994; Duff, 2002, 2008b; Lantolf &

Thorne, 2006; J. S. Lee & Anderson, 2009; Menard-Warwick, 2009; Morita, 2004, 2009; Norton, 2000; Park, 2007; Thorne, Black, & Sykes, 2009). Most distinctively, social, cultural SLA researchers doubt and refute the objectivity of knowledge, of truth, and of one unified reality of the world. They deny any direct association between human consciousness and the outside world, arguing that almost everything – truth, reality, and human experience, cognition and identity – is constructed through human interactions mediated by language or discourse. Therefore, they view that there are multiple truths, multiple realities and fragmented, multiple identities of one person, which members of a particular community co-construct, and which are bound to historically, socially and culturally specific contexts. For human learning, processes of social interaction and practices are emphasised, with the belief that human mind, cognition, knowledge and language competence are created through interpersonal language use in social, cultural and political contexts.

In a review of the different social and contextual approaches to SLA in the following sections (Sections 2.2.3 to 2.2.7), I attempt to scrutinise how the philosophical assumptions of the social cultural SLA stream described above are realised in the practical applications of each of these approaches. In so doing, I discuss, in relation to SLA, the contributions and weaknesses of the various social, cultural approaches.

2.2.3 Sociocultural theory (SCT)

Sociocultural theory (SCT) is a complex theory originating from the work of the Soviet psychologist, Vygotsky (1978, 1986), whose work has exerted considerable influence on the other social, cultural approaches to SLA as well as SCT. In particular, his notion of the relationship between language and thought, which corresponds to Whorfian *linguistic relativism* (i.e., language creates and shapes thoughts), is one of the most intrinsic tenets of the social, cultural approaches (Atkinson, 2011c; Kramsch, 2004).

To understand how SCT scholars approach and theorise SLA, it is firstly necessary to examine the principal sub-theories and concepts of SCT. These involve Vygotsky's four principal concepts, (*symbolic*) *mediation*, *internalisation*, *private (inner) speech* and the *zone of proximal development* (ZPD). In addition, *Activity Theory*, which has been developed to extend Vygotsky's original

concepts (e.g., Engeström, 1999), and the concepts of *self-regulation* and *cognitive mediation*, which are the elaboration of the concept of mediation (Karpov & Haywood, 1998), are also important in understanding SCT. These major SCT concepts together constitute a complex framework to understand human learning and development that especially focus on “human psychological processes (so-called higher mental processes)”, including language acquisition (Lantolf, 2011, p. 25).

A fundamental SCT proposition about human beings and their development is that inner mental processes are internalised and developed from external social interaction (Johnson, 2004; Jonassen & Rohrer-Murphy, 1999; Lantolf, 2000b, 2011; Lantolf & Thorne, 2006). Lantolf (2011) explains this view of human development with the key concept of ‘mediation’, referring to “the creation and use of artificial auxiliary means” (p. 25). In the physical world, lower mental functions (e.g., perception and involuntary attention) “are regulated by the environment” (Johnson, 2004, p. 107). On the other hand, higher mental processes, such as “planning, monitoring, rational thought”, are regulated by language, the most powerful symbolic tool, which is internalised into the mind through collaborative social activities (p. 107). Two types of symbolic mediation or regulation in the mind are metacognitive mediation by “semiotic tools of self-regulation” and cognitive mediation by scientific concepts (Karpov & Haywood, 1998, p. 27).

Higher mental functions (thought) mediated by language take place firstly “on the inter-psychological plane” in the form of social interaction, and later “on the intra-psychological plane” in the form of private and inner speech (i.e., thinking for SCT researchers) (Lantolf & Thorne, 2006, p. 153). *Scaffolding* – careful guidance and support given to the learner by somebody else –within the *zone of proximal development* (ZPD) is conceptualised as the core mechanism for different aspects of human development, including language acquisition, through the process of internalisation. According to Lantolf and Beckett (2009, p. 460):

All forms of development begin as external social activity, which are then appropriated by the individual as a result of this activity. This occurs in the ZPD, which is generally defined as the difference between what someone can do alone and what he or she can do with mediation.

When Vygotsky developed the concept of ZPD, it was originally meant to explain child development, but SCT researchers employ the concept to investigate any learning process taking place involving any relationships, such as teacher-student interaction, peer-peer interaction (for which the concept of ZPD is mutual), and also not only individual but also collective interactions (Lantolf & Thorne, 2006).

Meanwhile, Activity Theory is employed as a methodological framework for understanding human learning and development (Jonassen & Rohrer-Murphy, 1999). It attempts to account for the mechanism of how human behaviour and thought result from activities that are mediated by socially and culturally constructed tools, such as language (Engeström, 1999). That is, Activity Theory is a framework that aims to examine how the motives of individuals and communities arise from socially, culturally constructed needs, and how such motives drive individuals and communities to participate in activities. People find and play their own roles (division of labour) in such activities based on community rules (explicit) or conventions (implicit), the whole process of which then produces the development of human mental and behaviour (Lantolf, 2000a). In Activity Theory, the interaction between the cognition of individuals and social activities are also explained with the concepts of internalisation – how human mental processes emerge from external activities and *externalisation* – how human beings as agents act on, and transform their social cultural environments (Engeström, 1999).

The concepts and sub-theories, such as mediation, internalisation, private (inner) speech, ZPD and Activity Theory, which constitute the Vygotskian theory of learning and cognitive development in general, have been applied to explaining second language learning. Thus, for SCT researchers, SLA centrally involves internalising the knowledge of second language that is inter-personally constructed by means of scaffolding in a social, cultural context (Lantolf & Thorne, 2006). In addition, based on their conception of the mechanism of SLA and ontological axiom that language regulates and creates thought, these researchers propose notions about the epistemology of second language learners. These notions are, in essence, commensurate with the linguistic relativist perspective that SLA involves “the simultaneous acquisition of a whole new universe and a whole new way of looking at it” (Kaplan, 1972, p. 100). Lantolf and Thorne (2006) state:

[L]earning a new language is about much more than acquiring new signifiers for already given signifieds (for example, the Spanish word for 'fork' is *tenedor*). It is about acquiring new conceptual knowledge and/or modifying already existing knowledge as a way of re-mediating one's interaction with the world and with one's psychological functioning. (p. 5)

Earlier, Dunn and Lantolf (1998) also proposed:

[L]anguage is acquired through the revolutionary activity of making meaning, which is the case of children especially, entails the creation of the very tools used to make meaning...from the sociocultural perspective, *second* language learners have a *second* chance to create new tools and new ways of meaning. Thus, accents, (un)grammaticality, and pragmatic and lexical failures are not just flaws or signs of imperfect learning but ways in which learners attempt to establish (new) identities and gain self-regulation through linguistic means. In an important sense, L2 learning is about gaining the freedom to create – a freedom that native speakers have a greater difficulty achieving but to which children, up to a point, have access in learning their L1. (p. 427)

Therefore, for SCT researchers, learning a second language means creating “new tools and new ways of meaning” (Lantolf & Thorne, 2006, p. 5) or “acquiring new conceptual knowledge” in the language (Dunn & Lantolf, 1998, p. 427). This is, as mentioned above, achieved when careful scaffolding is provided within the person's second language ZPD. Under this principal notion of SLA and second language speakers, SLA researchers taking the SCT approach have mainly examined four aspects of language learning, which are:

- the extent to which second language speakers' thinking processes are mediated and regulated by their first and second languages (e.g., Appel & Lantolf, 1994; Centeno-Cortés & Jiménez Jiménez, 2004; H. J. Smith, 2007; Swain, 2006a; Ushakova, 1994);
- second language learning and acquisition through attending classrooms or courses or partaking in different social activities especially in relation to the concept of the ZPD (e.g., de Guerrero & Villamil, 2000; DiCamilla & Anton, 1997; Ohta, 2001; Poehner, 2007);
- the relationship between activity and motivation for language learning (e.g., Swain, Lapkin, Knouzi, Suzuki, & Brooks, 2009); and,
- the role of concept-based regulation for learning second language grammar and lexical items (e.g., Anton & DiCamilla, 1998; Ohta, 2001; Verity, 2000).

The SCT approach has been acknowledged for its leading contribution to acquainting the field of SLA with “the radical reorientation towards the fundamental role of social processes in SLA” (Ortega, 2009, p. 217). With its concept of social scaffolding within the learner’s ZPD, it also has inspired the reformation of pedagogical methodologies and strategies in the context of language teaching (Candlin & Mercer, 2001). Nevertheless, problematic issues arise from the SCT approach to SLA, particularly from its axiom that language regulates thought, which need to be carefully discussed.

Centrally, based on their fundamental notion of thought and language, SCT researchers suggest, “[T]he ultimate accomplishment of self-regulation in the L2 is if mediation can be performed via L2 (as opposed to L1)” (Ortega, 2009, p. 221). Thus, on one hand, they claim that second language learning gives opportunity for one to gain new ways of thinking through experiencing “accents, (un)grammaticality, and pragmatic and lexical failures” (Dunn & Lantolf, 1998, p. 427). On the other hand, however, these researchers are openly sceptical about the possibility that second language speakers may achieve this ultimate goal of SLA – being able to think in the L2) (Centeno-Cortés & Jiménez Jiménez, 2004; Lantolf, 2011; Lantolf & Thorne, 2006; Ushakova, 1994). In this regard, Lantolf (2011) states:

Based on extensive research in Russia, Ushakova (1994) suggested that L2 learners are unlikely to develop the capacity to use the L2 to mediate mental functioning even when they can use it in social interaction...A decade later, Centeno-Cortés and Jiménez-Jiménez (2004), using a more complex research design than in previous studies, again found that L2 speakers, including advanced speakers, were unable to use the language to mediate their online thinking during complex task. (p. 28)

Earlier, Lantolf and Thorne (2006) also argue:

[A]s proposed by Ushakova (1994)...late acquisition of language beyond the first are laid down on the psychological foundation organized through the meanings internalized in one’s first language; that is, we may speak more than one language but we have only one inner speech. What this means then is that our thinking processes are fundamentally carried out through the support (i.e. mediation) provided by our first language. The research reviewed in this chapter [Chapter 4 of the book] seems to provide fairly strongly support for Ushakova’s claim. (p. 110)

This suggested inability of L2 speakers in relation to thinking or self-regulation can be controversial, particularly when applied to English-medium academic

contexts, in which a considerable number of professional scholars and students use the language as their second language. Difficulties and challenges that these second language speakers in the contexts may experience can be anticipated without much controversy. However, assuming that they cannot think in the language that they have to use for their academic tasks could create an impression that they are ever deficient and challenged in such contexts. In fact, for example, in the extension of this SCT epistemology of second language speakers, Atkinson (1997) suggests that second language speakers of English are unlikely to engage in critical thinking, which is embedded in the language of Western culture. Considering the importance of criticality in an English-medium academic context, this type of suggestion could generate a deficit image of second language speakers in the context (see Section 3.3.5, Chapter 3 for a review and discussion of criticality).

Here, however, arguing over whether or not L2 speakers can think in L2 would not be the point, because the idea that thinking or producing thoughts (mental contents) only occurs in language seems to be fundamentally flawed. For example, as Vygotsky himself acknowledges within *phylogenesis*, one of the four domains of his *genetic method* for studying human development, human mental capacity is fundamentally different from those of other primates (Lantolf & Thorne, 2006). However, his overall sociocultural theory suggests that mental functions before language acquisition are no different from those of other primates, and higher mental processes (i.e., human thinking) begin to emerge with language acquisition (Johnson, 2004). A dilemma that is not clearly explained here is why and how a human baby whose mental capacity is already distinguished from those of other primates only engages in primate-level mental functions until learning language. The problem in this dilemma becomes clearer when considering recent brain research conducted by Edwards and his colleagues (Doria et al., 2010). According to them, the areas of the human brain involved in introspection, a type of higher level thinking, and other conscious mental acts are completely mature at birth, rather than being developed during childhood while acquiring cognitive skills.

In fact, a number of theoretical suggestions exist in the extant literature that could challenge the SCT notion of thinking only in language. For example, cognitive grammarians and cognitive linguists propose that human beings develop linguistic conceptual systems with which they engage in thoughts based on non-verbal

experiential bases or image schemata (Fauconnier, 1997; Geeraerts & Cuyckens, 2007; M. Johnson, 1987; Lakoff & M. Johnson, 1980/2003; Langacker, 2008). These cognitive linguists are also cultural relativists who assume that human cognition and the mind are socially constructed in particular cultural contexts. Thus, their ontological belief about cognition and thought are not fundamentally different from SCT researchers (see M. Johnson, 1987; Lakoff & M. Johnson, 1980/2003). However, they allow for the existence of cognition and thought (which makes it possible to establish experiential bases or image schemata) before a person acquires language. Following this view, even after language acquisition, thoughts are often considerably dependent on experiential images and the conceptual systems are largely extra-linguistic (M. Johnson, 1987).

Moreover, some scholars, such as Bruce (2008a), Chenoweth and Hayes (2001), and Widdowson (1983, 2007), suggest a hierarchical organisation and operation of extra-linguistic and linguistic knowledge in the mind. This appears to imply that thought is not only independent of language, but also that it rather regulates and constrains the use of language. Some studies of bilingualism and code-switching (hereafter CS) seem to be based on an ontological assumption of thought and language similar to that of Bruce and Widdowson (de Bot, 2002; Grosjean, 2008; Kroll & Dijkstra, 2002; M. C. Potter, So, Eckardt, & Feldman, 1984). The basic assumption of these bilingualism and CS researchers is that bilinguals select between two languages to communicate meanings. For example, Kroll and Dijkstra (2002) introduce “the revised hierarchical model”, which suggests:

[In the mind of a bilingual, there are] different levels or representation; at the level of word form ... independent lexical representations for each language, but at the level of meaning ... a single conceptual system” (p. 302).

Particularly, de Bot (2002) proposes that CS involves language choice, during which “the transition from [largely language-independent] conceptualization to language-specific coding takes place” (p. 293). Thus, although clarifying the existential relationship between thought and language seem not to be their main concern, it seems that the bilingualism scholars have developed their work based on the central assumption that there is an area in thought and cognition that is independent of language.

As Willard (1984) points out, clarifying whether or not thought is language-contingent is closely related to how one defines knowledge and describes the process of knowledge attainment (see Section 3.1, Chapter 3 for a fuller discussion of this issue). Consequently, for investigating SLA occurring in the process of developing academic knowledge, deciding perspectives about the ontological relation between thought, language and knowledge, and epistemological process is a critical matter. This study takes a position of resistance against the Vygotskian idea about language-thought relation. Alternatively, it seeks to rethink the thought-language issue from the realist perspective, while describing the realist conception of knowledge in Section 3.1, Chapter 3. Based on this, I discuss the SLA of the participants of the study in Chapter 6.

The following four sub-sections review the social cultural approaches to SLA termed language socialisation, emergentism, the identity approach and the conversation-analytic approach.

2.2.4 Language socialisation (LS)

The language socialisation (hereafter LS) approach principally explains the process of language acquisition by using the concept of *socialisation* (Ochs & Schieffelin, 1984). LS researchers consider that the socialisation approach complements the acquisition approach, which defines language learning narrowly as a cognitive phenomenon of linguistic knowledge development (Duff & Talmy, 2011). They suggest that LS, by contrast, “explain[s] [language] learning in much broader terms, examining not only linguistic development, but also the other forms of knowledge that are learned in and through language” (Duff & Talmy, 2011, p. 93).

The fundamental theories and concepts of LS were developed through cross-cultural studies of the development of first language socialisation (e.g. Ochs & Schieffelin, 1984). They drew on “sociological, anthropological, and psychological (especially Vygotskian) approaches to the study of social and linguistic competence within a social group” (Schieffelin & Ochs, 1986, p. 163). That is, LS aims to understand “how persons become competent members of social groups and the role of language in the process” (p. 167). According to their maxim “socialization *through* language and socialization *into* language” (Ochs &

Schieffelin, 2008, p. 5), they hold the view that “reality, including concepts of self and social roles, is constructed through social interaction (interactional use of language)” (Schieffelin & Ochs, 1986, p. 165). They emphasise the relativity of language and language learning across different cultures (Ochs & Schieffelin, 1984), contrasting with an approach that has identified universality in different languages and in the use and learning of these languages (e.g., D. E. Brown, 1991). Then as research methodologies, they employ phenomenological and ethnomethodological approaches from their cultural, relativist perspectives.

Another important framework that LS researchers employ is the notion of the learner as an *apprentice* or a *legitimate peripheral participant* in a *community of practice* (hereafter CoP) (Lave & Wenger, 1991; Wenger, 1998). This notion is echoed in Duff and Talmy’s (2011) definition of LS as a “framework for understanding the development of linguistic, cultural and communicative competence through interaction with others who are more knowledgeable or proficient” (p. 93). They stressed the importance of relative, situational contexts of learning (what Schieffelin & Ochs [1986] term as different cultures), in which knowledge, meanings and understandings are created and defined. A simple version of the basic concept of this notion is that a particular CoP is the place where this situational learning takes place. Learners conceptualised as newcomers, apprentices or novices, engage in vocational practices with experts or established members of the community. Through this engagement, the newcomers gradually become experts who eventually achieve “mastery of knowledge and skill” and a “full participation” in the community (Lave & Wenger, 1991, p. 29). The learning process in the context of CoP is reciprocal (that is old timers also learn from newcomers).

As their linguistic basis, LS researchers employ Halliday and Hassan’s systemic functional perspective, which proposed that the functions and systems of language are parallel to those of social, cultural structures (G. Williams, 2008). Halliday (1989) states, “Language is understood in its relationship to social structure (an aspect of culture)”, and in turn as *social semiotic*, “one of a number of systems of meaning that, taken altogether, constitute human culture” (p. 4). Language systems, including grammar, are developed and organised through functional use(s) of language in responding to social needs, primarily to social interaction that precedes other needs (Halliday, 1973; Halliday & Hasan, 1989). These

linguistic explanations manifest the principle of LS – socialisation in and through language use (Duff & Talmy, 2011) and language development through the process of language socialisation (Williams, 2008).

As Atkinson (2011c) points out, the LS approach has tended to overlook the mental aspects of SLA because of its emphasis on the importance of social, cultural processes of language learning. The 2004 article of Watson-Gegeo, an LS researcher, appears to be an attempt to overcome this perceived limitation of the LS approach, in which she extensively discusses the ontology of the human mind and cognition and mental aspects of language learning. Overall, her argument in the article clearly represents the LS perspective for understanding these matters. She contends, “Cognition originates in social interaction and is shaped by cultural and socio-political processes” (p. 331). In order to support this position, she firstly draws on a number of studies from other disciplinary areas, such as neuroscience, psychology and anthropology. Then she links these studies to her LS perspective for second language acquisition. Thus, essentially, the LS perspective of human mind and cognition articulated by Watson-Gegeo endorses the notion that one’s language, knowledge, experience are all socially constructed through the process of socialisation, a perspective that is broadly shared by the other social, cultural approaches, including the SCT approach (see Atkinson, 2011b; Block, 2003).

The LS approach to SLA has made the important point that language learning involves not only linguistic knowledge but also “other forms of knowledge” (Duff & Talmy, 2011, p. 94). It also contributes to the recognition that second language learning and use always takes place in social, cultural contexts. Despite this, however, there are issues relating to the philosophical and theoretical disposition of this approach, which I discuss in the rest of this section.

Firstly, there seem to be some fundamental problems in the ontological belief of the LS approach that the mind and cognition of language learners emerge from social processes. For example, as evidence of this belief, LS researchers suggest that social, cultural factors exert influence on language learners. However, social influences on language learners do not seem to indicate that their mind and cognition are products of social processes, but rather seems to suggest that their existence precedes any social engagement. This is because, in order to be influenced by social factors, their mind and cognition should exist *first*. More

fundamentally, social, cultural processes centrally involve human interactions between agents (participants) with their *intentional* minds (see Chapter 3, Section 3.1 for a more detailed review of the concept of the intentionality of the mind). Therefore, the LS (and other social, cultural approaches) notion that the mind and cognition of language learners originate from social processes appears to be ontologically impossible, unless speculating a hypothetical situation in which a person initially engages in social processes with *neither* mind *nor* cognition. In addition, unlike the scientific claims identifying the mind with the chemical, neural reaction of the brain to external stimulations, which Watson-Gegeo (2004) draws on, others suggest that the mind is not the brain function as such but what is in charge of that function (e.g., Eccles, 1982, 1994). In fact, a number of scientists and philosophers have argued for the *a priori* existence of the mind and cognition, pointing out the inadequacy and improbability of scientific and sociological explanations against this existential nature of the mind and cognition (e.g., Chalmers, 2010; Custance, 1980; Davis, 1983; Eccles, 1982, 1994; Husserl, 1970; Kelly et al., 2007; Lewin, 1992; Nagel, 2012; Plantinga, 2011; Stapp, 2007; Trefil, 1996; Willard, 2000, 2007).

The inadequacy of presuming that the mind and cognition of language learners originate from social processes seems to manifest itself in the studies carried out by some social, cultural researchers. As Duff and Talmy (2011) admit, there have been SLA research findings that do not completely fit into the framework of socialisation. For example, Norton's (2000) research shows that both the learners themselves and the members of the target language community resisted playing the roles imposed by the community. The learners who were not socialised into the target language community, however, did not fail to learn the target language. Similarly, through a meta-analysis of L2 socialisation studies, The LS researchers Bronson and Watson-Gegeo (2008) acknowledge that language learners may want to keep their own identities rather than accepting new identities expected by their L2 communities. This seems to imply that SLA may involve a number of aspects that cannot be accounted for when based on the conception of the mind and its intention as ultimately a product of social, cultural processes.

In addition to their concept of the mind and cognition, the dilemma that L2 socialisation researchers have encountered seems to arise from the concept of language learning as socialisation into a CoP. Ortega (2009) notes that, when it

comes to SLA, “socialization could risk being just a more fashionable guise of the dangerous ideology of assimilation” (p. 241). In a similar vein, Bruce (2011) challenges the adequacy of the CoP approach to account for the acculturation of outsiders into North American academic communities. More essentially, he provides a detailed critique of the CoP approach, in relation to its application to language learning context. According to him, the concept of CoP may actually obscure what is really happening at the site of language learning, especially in the context of higher education. For example, the CoP approach postulates “‘mutual engagement’ and ‘joint enterprise’ toward the achievement of a common goal” (p. 22) as the principal mechanism of learning or attaining knowledge and language. However, in academic contexts, particular groups and individuals, such as those of academic staff or doctoral students, have their own particular goals in advancing their own knowledge. In addition, he also points out that the established members in the context, such as supervisors, examiners or reviewers, do not always facilitate new comers to become the members of academic community, but they also play “gate-keeping roles” (p. 22).

Throughout this thesis, I contrast the social, cultural concepts of the mind of language learners and language learning with those of the present study, and discuss the implications of this divergence.

2.2.5 Emergentism: Ecological perspectives, complexity theory and the sociocognitive approach

Ecological perspectives (Kramsch, 2002b), complexity theory (N. Ellis & Larsen-Freeman, 2006; Larsen-Freeman, 1997), and the sociocognitive approach (Atkinson, 2010) are generally recognised as three separate SLA approaches. However, the central notion of each of these three approaches seems that second language competence emerges through adapting oneself into constantly changing circumstances in which the person interacts with diverse people and environments over time (Atkinson, 2011b; Kramsch, 2002a; Larsen-Freeman, 2011). Using this overarching core concept, proponents of the three strands have taken up each other’s work to support their own, resulting in considerable resemblance with one another in some aspects. I draw on the construct of *emergentism* from N. Ellis and Larsen-Freeman (2006) and Ke and Holland (2006), to refer collectively to these three approaches. There appear to be three central commonalities across

complexity theory, the sociocognitive approach and the ecological perspective, which this section mainly discusses. Prior to this, I briefly describe divergences within the three strands.

One noticeable difference is that each has its own, slightly different views on cognition. The ecology perspective suggests the somewhat radical notion that “any use of language, be it learning language or using it...does not derive from structures in the head...but are new adaptations that emerge from the seamless dynamic of timescales” (Kramsch & Whiteside, 2008, pp. 599-660). That is, language use and learning does not involve cognitive process, but new adaptations to a changing socially constructed environment. On the other hand, complexity theory and the sociocognitive approach see the cognitive process as an adaptive, distributional process that occurs in conjunction with social interactions (Atkinson, 2010; Larsen-Freeman, 2011). In addition, in relation to research methodology, complexity theory uses participants’ personal, retrospective accounts as data, such as their diaries (Larsen-Freeman, 2007), while, the other two approaches collect natural conversations and develop their own analytic procedures that involve adaptations of the techniques of conversation analysis (see Atkinson, 2010; Kramsch & Whiteside, 2008)

The most prominent commonality among the emergentist approaches is that they conceive of language development through the use of metaphors for patterns, balances, and operations of nature. Some of the representational metaphors employed by this group of researchers are *ecology*, *affordance*, *alignment*, *adaptation*, *equilibrium*, *chaos/dynamic system* (Atkinson, 2010; Kramsch, 2002b; Larsen-Freeman, 1997; Leather, 2002; van Lier, 2000). For example, ecology refers to the naturally balanced relationship between animals/plants and their environments. Then, language ecology suggests the relationship between language users and their environments as a holistic, balanced system. The other constructs are utilised to explain how the whole system is operationalized.

In addition, all the three emergentist approaches tend to avoid dualistic metaphors, such as linguistic structure/social structure in relation to SLA, but see them as part of a continuum. Kramsch (2002a) argues that the two metaphors of language acquisition/socialisation lead one to think that language learning is only either cognitive or social, although it involves both cognitive and social aspects. Larsen-

Freeman (1997) urges a blurring of the boundaries of false dichotomies, such as use/learning, competence/performance, individual/social, mental process / language as social, cultural use. Atkinson (2010) emphasises the continuum (connectedness) and alignment of cognition, body and world: the embodiment of a person's cognition, the existence of which is then extended to public milieus. In sum, they try to view second language acquisition in a holistic way, suggesting that language speakers, their interlocutors and their environments are all components of one system. They further argue that the constructs pervasively used in other SLA studies artificially compartmentalise the phenomenon of language development into smaller parts, which in fact keep them from understanding it appropriately.

Particularly, the understanding of the complexity theory approach to SLA has derived from the theory of thermodynamics from biology and ecology (Larsen-Freeman, 1997; 2011), which seems to be then shared with the other two emergentist approaches (see Atkinson, 2010; Kramsch, 2002a & b; Kramsch & Whiteside, 2008). According to these theories, an iterative cycle between chaos and self-organisation is the pattern of the self-development of biological and ecological systems. Taking this up, Larsen-Freeman suggests that language develops while language users try to align themselves with their environments. Every interaction between a person and her context is unique, complex and non-linear, and language development appears unpredictable and even chaotic. Yet the process involves a quick, instinctive and flexible self-organisation and -adaptation to the environment (Cameron & Deignan, 2006; Larsen-Freeman, 2006; Mellow, 2006). This emergentist notion of language acquisition challenges the cognitive SLA theorists and researchers who depict language acquisition taking place in an orderly manner (Larsen-Freeman, 1997).

The significance of the emergentist perspectives is their emphasis on the complex and dynamic nature of language development: a notion that would appear to be self-evident, but that could be lost in theories that may oversimplify SLA so that it easily fits into particular theoretical frameworks. Overall, they argue that compartmentalised, dichotomised SLA constructs and metaphors are often created for the convenience of the researcher, but may actually distort what takes place (Kramsch, 2002b; Larsen-Freeman, 1997).

Here, however, the claim of emergentism that any human constructs (including the ones in the study of SLA) are all just metaphors that do not correspond to the real world should be carefully considered. It is important to probe carefully whether or not concepts used by SLA researchers and theorists rightly identify things, events or states of affairs involved in the process of language learning and use. However, as the names of different body parts serve to indicate what we actually have in our bodies, many of the constructs that emergentist researchers attempt to eschew are in fact important to represent the actual mental and physical worlds, and thus are necessary for studying SLA. Besides, it is not evident that it has been necessary to understand human activities, while abandoning the existing cognitive constructs, such as “beliefs, rules, concepts and schemata” (see Kramsch & Whiteside, 2008, p. 59). It may, in fact, be problematic to apply the ecology metaphor to human consciousness and reasoning activities given its origin in the non-reasoned adaptive behaviours of non-human living organisms in the natural world. Mead (1934) clearly stated that “a social situation [is] distinct from such bare organic responses as reflexes of the organism” (p.194). Moreover, the notion of self-organisation from chaos was originally a theory for non-living cell structures and scientists even raised objections when this theory was applied to account for living cell structures, which are more complex than non-living cells, but still much simpler than any human phenomena (e.g., Yockey, 1977, 2002). Therefore, it would appear that applying the same theory to understanding SLA, which is one of the most complex, conscious human activities, may lack validity given the very different processes involved.

2.2.6 The identity approach

The identity approach to SLA began with Norton Peirce’s (1995a) argument that the relationship between language learners and the social world is not adequately conceptualised in SLA research. She later contended that describing the language learner as having a fixed, unitary personality and motivations, which are considered to be decisive factors for the success of language learning, is a misconception (Norton & Toohey, 2001). Drawing on the concept of subjectivity suggested by the feminist poststructuralist, Weedon (1997), the identity approach suggests an alternative meaning of the language learner identity as “how a person understands his or her relationship to the world, how that relationship is constructed across time and space, and how the person understands possibilities

for the future” (Norton, 2000, p. 5). Norton emphasises that the language learner’s identity can be understood only in terms of *inter*-relations with diverse people, and it is thus multiple and changeable at different times and contexts. Unequally distributed power between the learner and local people in the target language community, which is embedded in language use, crucially affects social interactions through which the learner’s identity is constructed (Norton, 2000; Norton & McKinny, 2011; Norton Peirce, 1995a).

Identity research studies have found that there are always power struggles and identity negotiations at the site of language learning and use. Second language learners, when they participate in social activities with L1 users, often perceive themselves as humiliated, powerless, not-received (listened to) and not-allowed to speak (Day, 2002; Heller, 2006; Higgins, 2009; Pavlenko & Blackledge, 2004). Norton (2000) acknowledges the notion that communicative competence develops through meaningful language use. At the same time, she also stresses that since the unequal power struggles that the language learners often experience and their perceived understandings of themselves (their identities) greatly affect the development of communicative competence, they should be addressed in theorising the process of SLA.

In addition to the central notion of the identity approach described above, the concepts of *investment*, *imagined communities* and *imagined identities* also constitute important part of this approach. Norton (2000) argues that what language learners expect from learning a language is more complex than a single-minded desire to access the target language culture, as suggested by the conventional theories of integrative motivation. Drawing on Bourdieu’s concept of *cultural capital*, Norton and McKinney (2011) propose that learners *invest* in the target language learning and their identity negotiation, expecting that “they will acquire a wider range of symbolic and material resources (cultural capital)” as “a good return on that investment” (p. 75). Unlike the idea of being motivated or demotivated, which entails a positive/negative dual sense, the concept of investment involves the learner’s voluntary choice of the extent to which to invest her time and effort in language learning. Once invested, the learner engages not only in the target language learning, but also in constant identity negotiation (Norton, 2000; Norton Peirce, 1995a & b).

While the concept of investment has always been part of the identity approach, the concepts of imagined communities and imagined identities started to appear only from 2001 (see Norton, 2001). The concept of imagined communities was originally by Anderson (1983/1991), which the identity approach has adapted to “refer to groups of people, not immediately tangible and accessible, with whom we connect through the power of the imagination (Norton & McKinney, 2011, p. 76). An imagined community is not an unreal fantasy. Its members, however, most probably live at different times and spaces, “yet in the minds of each lives the image of their communion” (p. 6). Then “a learner’s imagined community invited an imagined identity” (Norton, 2001, p. 166). Employing the notions of imagined communities and *non-participation*, taken from Wenger (1998), Norton (2001) reanalysed her previous research data from two studies – 1995 and 2000. Although her two participants made an effort to learn the target language in a class, they chose to be *non-participants* of their class communities, eventually withdrawing from them. Their efforts in language learning involved their investment, not in the immediate class community, but in their own imagined communities to which they believed they belonged. Their imagined communities in which they also imagined their own desired identities played an important role in their language learning.

The notion of identity as the speaker’s own understanding of him/herself, which is largely reflected in the concepts of investment and imagined community, acknowledges the importance of enabling language speakers to have their own voices in SLA studies. However, careful consideration needs to be given to whether or not the poststructural conceptual framework of the identity approach according to which the speaker has fragmented and multiple identities actually represents a language learner’s own understanding of his/her identity. As the identity approach suggests, a person’s identity has multiple dimensions at different times and in different contexts. This is also discerned by the realist philosopher, Willard (2000, 2007) when he proposes that a person’s self (identity) has multiple parts and qualities, and develops and matures (both negatively and positively) through time. More importantly, however, he suggests that these parts and qualities of one’s self relate to each other and make up the whole, unitary being. Then the person can have the capacity to choose to live out the person that she desires to be. Furthermore, the poststructural idea of an individual’s

fragmented, multiple ideas has long been criticised in the field of psychology. For example, Parker (1998) points out that such a notion of identity has caused problems for understanding personal integrity. Burr (2003) and Willig (2008) also propose that a person's *life history* or *autobiography* should be addressed when examining the sense of identity and self. That is, when a person negotiates her identity through a particular social interaction, it is not that a fragmented identity is created, but it is more likely to be that her whole being confronts social conflicts and power struggles, which results in the type of further identity development that Willard proposes.

As Norton and McKinny themselves (2011) observe, different understandings of the speaker's identity would result in different implications for SLA. In the present study, the issue of identity is not centrally examined. However, understanding the identity of the participants who are second language speakers of English is still very important. I value the participants' first person perspectives, which the identity approach to SLA strives to embrace in researching second language learning. Therefore, while taking this view of the identity approach – one's identity as a participant's own understanding of herself from the first person perspective – my research aligns its stance with Willard's phenomenological realistic position on identity as an a basis for understanding the participants of the study.

2.2.7 The conversation-analytic approach (CA)

Conversation analysis has been used by SLA researchers as a data analysis method to examine micro-level procedures and techniques for transcribing and analysing verbal conversations involving second language speakers (Nunan, 1992). For example, in applying the general principles and themes of CA to the study of SLA, Markee (2005) suggests that CA, as a data analysis tool, helps to understand some SLA concepts, such as comprehensible input or output in terms of micro-level details. However, the conversation-analytic approach (hereafter CA) discussed here is not just a data analytic method but an approach to SLA with its own theoretical and methodological frameworks (Kasper & Wagner, 2011).

CA has been particularly influenced by *ethnomethodological sociology* (Kasper & Wagner, 2011; Markee, 2005), and finds its origins from Sacks, Schegloff and Jefferson' work in the 1970s (Schegloff, Koshik, Jacoby, & Olsher, 2002). By its

nature, CA eschews being framed by “exogenous (i.e. externally imposed) theories” in expounding data analysis (Kasper & Wagner, 2011, p. 122), but it attempts to establish its own theoretical entity through meticulous, microanalytic illuminations. Markee (2005) states:

[W]hen the same fragment of talk is retranscribed to yield an even more fine-grained transcript of the interaction, not only do we develop a more detailed analysis of the organizational structure of the learning activity under study, but we also develop a deeper substantive understanding of the socially distributed nature of human cognition and SLA (p. 3).

In addition, CA researchers try to make sure that data should be natural in a sense that they are not produced for the purpose of research. As data, they involve not only talk but also “other forms of conduct” occurring in natural conversations, such as “the disposition of the body in gesture, posture, facial expression, and ongoing activities in the setting (Schegloff et al., 2002, p. 3). The two types of natural conversations that CA examines are *ordinary, mundane conversation* and *institutional talk*, an example of the latter being classroom interaction (Kasper & Wagner, 2011; Markee, 2005; Schegloff et al., 2002).

Through detailed, micro-level examinations of naturally occurring conversations, CA researchers show that it is human nature to be able to achieve *the orderliness* of conversation, no matter if conversing in first or second language (Sacks, Schegloff, & Jefferson, 1974; Schegloff, Jefferson, & Sacks, 1977; Schegloff et al., 2002). Schegloff et al. (2002, pp. 4-5) provide some examples of conversational orderliness, which are *turn-taking, turn organisation for contribution, action formation, sequence organisation, the organisation of repair* (or communication difficulty or breakdown), *word/usage selection, recipient design* and *overall structural organisation* of the occasion of interaction. The notion of the conversational orderliness has enabled CA researchers, such as Firth (1996) and Wagner (1996), to observe that competence in using language is not just as the “object of” learning, but perhaps more importantly, “fundamental condition for” it (Kasper & Wagner, 2011, p.119). That is, CA suggests that the competence related to second language learning should be understood in this “dual sense” (Kasper & Wagner, 2011, p. 118); on one hand, competence as an actual ability that enables language learners to participate in second language interactions more effectively; on the other hand, as potential capability that they strive to develop

more (Kasper & Wagner, 2011; Mori & Hasegawa, 2009). The central moments CA researchers seek to examine are as follows:

- when second language speakers organise the order of talk with their own interactional competence (e.g., Lee, 2006);
- when the development of their interactional competence emerge (e.g. Mori & Hasegawa, 2009); and,
- when challenges and tensions in using and learning second language arise (e.g., Brouwer, 2003).

In fact, by expanding this principled dual concept of competence, Firth and Wagner (1997/2007) challenged the notion of communicative competence as equating to the ideal, unproblematic competence of native speakers using their L1, which non-native speakers (NNSs) should aim to achieve. They try to go beyond the problematic concept of language learners as NNSs, and understand how they actually deal with and experience second language interactions in the context of learning or use the language (also see Section 2.1.2 for the context of NNS/NS discussion).

However, despite these contributions made by the CA approach to SLA, some concerns about this approach arise, particularly in relation to their explanations of the cognition and identity of second language speakers. The CA view of cognition and identity has centrally taken up the philosophical belief of *discursive psychology* (Edwards, 1997; Edwards & Potter, 2005; Potter, 2003), which is known as an extreme social constructionism (Burr, 2003; Willig, 2008). Kasper and Wagner (2011) put it as follows:

CA relocates cognition from its traditional habitat in the privacy of people's minds to the arena of social interaction ... Since socially shared cognition and learning are publicly displayed in interaction, they become available to researchers for analysis, obviating the need to construe hidden internal processes behind observable behaviour (pp. 120-121).

The CA ontology of the language user expressed in the statement above is thus that the cognition of the language user dwells not in "the individual mind" but in "the public sphere of social life" (Kasper, 2009, p. 3). The CA approach basically shares the idea of human cognition as the outcome of social processes with the other social, cultural SLA approaches (see Kasper and Wagner, 2011), but its

perspective of cognition seems to be most radically social, in terms of its denial of the individuality and privateness of mental processes. Certainly, language users influence each other for what each of them cognises, and their thoughts and feelings can be displayed to a certain extent in the process of social interactions. Nevertheless, the radical CA assumption that each individual's entire cognition can be socially shared is not plausible. Firstly, in general, people do not (and cannot) express everything that they think and feel, and what they say can be different from what they really think or feel. Then in essence, a person's cognition is the act of the mind of the person (Husserl, 1970), which is unceasing regardless of whether or not he/she engages in social interactions. Thus, the mental state or process of the person that others can sense through observation would be only a small portion of his/her cognition unless the person willingly discloses more of his/her mental world.

In addition, Kasper and Wagner's (2011) proposal that identities "are not assumed to reside in a person but are interactionally produced, locally occasioned, and relationally constituted" and are "multiple, fluid, fragmented, and conflicting" (pp. 121-122) also calls for a careful examination. This CA conception of identity converges with that of the identity approach reviewed in Section 2.2.6. However, CA understands identity of the language speaker in a more ahistorical way, stating that one's identity is only locally relevant to "any given moment in their talk" (p. 121). The central problem of the CA view of the language user's identity is that, as Burr (2003) points out, "the humanistic self cannot be replaced by something that performs its explanatory function" (p. 180). That is, although people can be known in terms of their social roles, such as language learners or teachers, the integrated core being of each unique individual cannot be completely identified with certain social roles that they perform. In addition, the discursive concept of identity that CA draws on seems to fail to "address the questions about *subjectivity* – that is, our sense of self, including intentionality, self-awareness, and autobiographic memories" (Willig, 2008, p. 106).

The discussion of the issues in the CA approach relating to the language user's cognition and identity will be reflected in the methodological approach of the present study to examining the SLA of the participants.

Summary and implications of Section 2.2

As stated in the overview of this chapter, the social, cultural SLA stream offers valuable insights to this study. Most of all, the researchers in this SLA school of thought emphasise the importance of researching SLA at macro-level (i.e., involving other forms of knowledge) rather than only at a micro-level of discrete grammar points or vocabulary items (Duff & Talmy, 2011; Johnson, 2004; Kramsch, 1993). As the emergentist approach emphasises, the process of SLA may be thus a much more complex process than cognitivism has theorised with its computer processing metaphors (Larsen-Freeman, 2007, 2011). Moreover, as the CA approach suggests, the concept of competence in relation to language learning and use is not just what the language user strives to achieve but also what enables her to engage in actual language learning and use (Kasper & Wagner, 2011; Lee, 2006). Particularly, in relation to researching second language learning, as the identity approach proposes, the learner's own perspective and understanding of language learning should be valued and embraced when examining their second language learning experiences (Norton & McKinny, 2011).

Nevertheless, as argued throughout Section 2.2, this present study resists the social SLA researchers' ontological perspectives of the mind, cognition and language and their epistemological assumption about the process of knowledge and language development. Therefore, while incorporating elements of what the approaches from the social, cultural SLA stream bring to the enterprise of researching second language learning, I will seek to establish an alternative conceptual framework for researching the SLA of the participants of the study from a realist perspective. This will be the focus of Chapter 3.

2.3 Conclusion

Chapter 2 reviewed the three theoretical approaches to the study of SLA in terms of implications of their philosophical backgrounds, theories of SLA, research framework and research findings. Each of these SLA streams provides valuable suggestions in understanding the experience of second language learning and use, but I also contended that there is a fundamental disagreement between their paradigms and that of the present study. In the following chapter, which aims to establish the conceptual framework of this present study, I discuss this issue more

extensively. In so doing, I explicate my philosophical, paradigmatic position that lays the foundation of this research.

3 CONCEPTUAL FRAMEWORK FOR EXAMINING SLA IN KNOWLEDGE DEVELOPMENT

3.0 Overview

In Chapter 2, I centrally sought to highlight and comment on the philosophical tenets of the three SLA streams as they relate to the nature of human beings and human language, tenets that underpin their theoretical approaches and research frameworks. I firstly challenged the idea of behaviourism in relation to the fact that it excludes the mental aspects of language learning, limiting the scope of research to what is physically observable. In addition, I also questioned the theoretical orientation of cognitivism that explains the complex process of SLA using computer metaphors that isolate the process from the development of other types of knowledge and from social cultural contexts. Then the social, cultural stream was more extensively and carefully reviewed. In so doing, I centrally argued that the axiomatic beliefs about the human nature of second language speakers shared by the different approaches of this research stream provide only limited understandings of the nature of SLA, despite the contributions that they have made to the field.

Overall, from the critical review of the three SLA streams, the need to establish the basis for the philosophical position and theoretical underpinnings of the present study emerged. Therefore, Chapter 3 aims to:

- provide an understanding of consciousness (the mind), cognition, thought, knowledge and language from a phenomenological realist perspective; and,
- establish a theoretical framework for examining SLA occurring in developing and sharing academic knowledge: specifically, the participants' SLA experiences throughout undertaking the literature review (LR).

Section 3.1 is a review of Edmund Husserl's (1970) investigations of knowledge, seeking to offer a realist ontology of the mind, cognition, knowledge and language and epistemology in accounting for how knowledge is generated and the role of language in this process. This involves discussing how Husserl's clarifications of cognition, knowledge and language contrast with those of other SLA paradigms. In so doing, I intend to establish some general principles for investigating the SLA

of the participants of the present study in developing and communicating their academic knowledge.

Section 3.2 firstly seeks to conceptualise the meaning of undertaking the LR. It then centrally reviews Widdowson's (1983, 1990) concept of language learning through the *negotiation of meaning* and Bruce's (2008a) theory of *genre knowledge*. The review in this section is to pave the way for considering some mechanisms of language learning and the possibility to expand the scope of SLA to involve both extra-linguistic and linguistic systemic resources in academic contexts. In addition, I deal with two more issues – *competence* in using a second language and the *criticality* of second language speakers of English.

Finally, Section 3.3 concludes the chapter.

3.1 Reconceptualising mind, cognition, knowledge and language: A review of Husserl's theory of knowledge

This section consists of six subsections. Section 3.1.1 presents the perspective from which I review Husserl's theory of knowledge. Sections 3.1.2 to 3.1.4 summarise his work in terms of the three developmental stages of his theory, revealing his emergent thinking on the mind, cognition and knowledge. Section 3.1.5 then highlights the progressive nature of knowledge, which has been explicated throughout the three preceding subsections. Finally, Section 3.1.6 discusses the role of language in the process of knowledge attainment.

3.1.1 Phenomenological realist tradition

Edmund Husserl (1859 – 1939) was a philosopher whose central concern was investigating the nature of human consciousness and knowledge. He is known as the founder of what is now called *phenomenology* (Inwood, 1999), and the principal ideas of his approach are presented in his masterwork, *Logical Investigations* (1900 – 1901) (Fisette, 2003).

Husserl's ontology of consciousness and knowledge has brought forth quite divergent interpretations from two different phenomenologist groups (B. Smith & Woodruff Smith, 1995). The first group of scholars base their ideas on the work of the German philosophers, Heidegger and Gadamer, "French phenomenologists, such as Sartre, Merleau-Ponty and Ricour", and the American philosopher, Aron

Gurwitsch (p. 37). They believe that the world is contingent on the perceptions of the mind, so “knowledge ultimately consists in just the evidential relations of corroboration among intuitive experience and higher levels of judgement” (p. 36). The second group consists of phenomenological realists, such as Adolf Reinach, Roman Ingarden, Dagfinn Føllesdal, Dallas Willard, Barry Smith, James P. Moreland and David Woodruff Smith. Their argument is that the world is independent of the mind, and thus “knowledge of it is a matter of “truth-making” relations between what is known and our judgement thereof” (p. 36). Particularly, against the general belief that Husserl became an idealist at his later work, Willard and Moreland argue that Husserl maintains his realist perspective throughout his career (Moreland, 1989; Willard, 2011).

While the theoretical approach of the second group encompasses the potentiality that the knowledge of the known (the object) corresponds to the object, that of the first group precludes such a potentiality. In fact, there are parallels between the idea of the first group of phenomenologists and that of the social, cultural SLA researchers. My research draws on the realist work of the second group, particularly, that of Willard (1982, 1984, 1995 & 2003a & b), who has explored and interpreted Husserl’s theory of knowledge.

In providing a theoretical basis for the present study, I centrally draw on the ideas that Husserl proposes in his work, *Logical Investigation* (translated by Findlay in 1970), and I also refer to his following works:

- *Formal and Transcendental Logic* (translated by Cairns in 1969);
- *Ideas: General Introduction to Pure Phenomenology* (translated by Gibson in 1931);
- *The Idea of Phenomenology* (translated by Alston & Nakhnikian, in 1964)
- *Early Writings in the Philosophy of Logic and Mathematics* (translated by Willard in 1994);
- *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy* (translated by Rojcewicz & Schuwer in 1989)

3.1.2 The first stage

Husserl’s first scholastic career was that of a mathematician. Consequently, his exploration of knowledge began from dealing with knowledge of abstractions that

do not involve authentic, concrete objects. Later he gradually realised that the clarification of knowledge should be of knowledge in general, and began to include the knowledge of authentic, concrete objects into his work (Willard, 1982, 1995). For Husserl (1970), any entities that exist in the physical and mental worlds can be the *objects* of knowing, such as:

- the parts, moments and wholes of things, processes, events, states of affairs;
- the parts, moments and wholes of the mind, consciousness and cognition;
- species or essences, such as laws of universal logic and moral laws;
- ideal objects such as numbers or languages; and,
- mental properties resulted by acts of judgements (i.e., concepts, theories propositions).

At this stage, Husserl (1994) theorised knowledge by means of two concepts: *representations* and *intuitions*. Representations refer to “psychical experiences not including their objects themselves as *immanent objects*” – the objects that are perfectly intuited by the mind – and intuitions refer to “psychical experiences [that] really include those objects within themselves as their *immanent contents*” (p. 154). As Willard (1995) notes, Husserl characterised representational thoughts as abstract, symbolic (including linguistic), merely intended and inauthentic, and intuited thoughts as concrete and authentic. At this early period of his work on knowledge, he considered that knowledge would become complete when representational thought was confirmed by, or satisfied with intuitional thought. However, this epistemological conception of Husserl’s led to important philosophical questions. Particularly, the ontology of the immanent object was problematic; although his intention appears to describe the cognitive capacity to have complete knowledge of the object with the concept of immanent object, it was not clear whether it refers to the object itself or a mental reflection of the object. Thus, the concept of the immanent object was rather keeping him from articulating his realist idea that knowledge can potentially be the actual knowing of the object as it is (Woodruff Smith & McIntyre, 1982).

Nevertheless, from this early period, his realist idea of the relationship between language (a symbol) and thought (a concept) clearly differs from that of most of social constructivist scholars (including the social, cultural SLA researchers), who,

according to Willard (1984, p. xi), “quickly and comfortably assume that human consciousness is essentially linguistic” (see Section 2.2). Husserl’s notion in relation to subject matter knowledge clearly shows that he did not see human thought as fundamentally linguistic:

[S]o perfectly and assuredly do [words and letters] surrogate for the concepts really intended, that in the majority of cases we do not notice the distinction between the two [i.e., words/letters and concepts], in spite of the huge gulf separating them. The signs and fragments of experiences stand in place of genuine concepts, but *that* they do so is unnoticed by us. (Husserl, 1994, p. 31)

That is, as Willard (1995) points out, “[o]ur thoughts when doing intellectual work consist almost totally of inauthentic representations” (p. 141). However, Husserl discerned that thoughts (concepts) are not the words themselves that encode them, but they are two separate entities. This ontological clarification of thought has a very important implication for the nature of knowledge: it indicates that the mind does not need to be constrained by language to cognise the object and produce thought although what is cognised can be linguistically expressed, so that it can know the object itself.

3.1.3 The second stage

The central advancement that Husserl achieved at the second stage of his theoretical development, which is considered to end with *The Fifth Logical Investigation* (1970, pp. 533-659), is an exposition of how it is possible for a person to go beyond language and their own consciousness, and reach *the thing itself* through the act of knowing. That is, Husserl intends to show that human beings are capable of knowing of, or conceptualising an object of knowledge exactly as it is. This idea of his amounts to the concept of the *transcending quality* of consciousness, which differs markedly from the approach that thinking or knowing always occurs through language and (thus) the operation of the mind and cognition is essentially only linguistic. The first step that Husserl (1970) took for this achievement is to remove the concept of the immanent object from the system of his theory of knowledge. He clearly states, “It will be well to avoid all talk of immanent objectivity” (p. 560)”. That is, it appears that, by realising that what is intuited or grasped in the mind is the object itself, he concluded that the concept of immanent object is unnecessary and even misleading.

The elimination of the concept of the immanent object enabled Husserl to develop two insights that are central to his theory of knowledge (Willard, 1995). Firstly, it led him to develop further the concept of *intentionality*, which then allowed him to explain why and how the human mind can go beyond language and conscious perceptions or experiences, reach the object and achieve the knowledge of the object itself (p. 147). According to Husserl (1931), the intentionality of consciousness (mind) is “the peculiarity of experiences ‘to be the consciousness of something’” (p. 204) and “expresses the fundamental property of consciousness” (p. 357). It is “often characterized as the “*directedness*” (*aboutness* or *ofness*) of consciousness” (Woodruff Smith & McIntyre, 1982, p. 1). That is, when one intends to know about a particular object, all the person’s acts of mind (both representations and intuitions) involved in that knowing are *directed at* the object. This directedness makes it possible that “consciousness reaches out [to the thing itself] beyond what is actually lived through” (Husserl, 1970, p. 701). Thus, knowing is not just an interaction between representational thoughts and intuitions (both of which are acts of the mind), but it essentially involves the object of knowing itself (Willard, 1995). This statement suggests that the process of knowing makes no distinction between the condition of knowing any object of thought whether it belongs to the physical world or the ideal world (e.g. abstract concepts or universal logic or moral laws) (p. 149).

Another significant advancement that Husserl (1970) achieved through being free from the idea of the immanent object is that the object of knowing exists objectively and independently of the mind (p. 332). Thus, for example, if I try to comprehend Widdowson’s published concept of *the negotiation of meaning* as the object of my knowledge, I may have different understandings (representational thoughts) over time. Unless Widdowson himself changes the meaning of the concept, his originally intended meaning remains intact, existing separately as an independent property from my mind (and from his own mind as well). This separateness of the concept of negotiation of meaning as my object of knowing from my understandings of it allows me to keep comparing my understandings with the concept that Widdowson intended, by repeatedly returning to its definition given by him. In this way, it may (or may not) be possible that I understand the concept exactly as Widdowson intends at a certain point. The real implication of the clarification of the existence of the object of knowing

independent of the knower's mind was not yet completely articulated at Husserl's second stage (Willard, 1995). However, this understanding of the ontological relationship of the act and object of knowing provided the basis of the third stage of his analysis of knowledge.

Husserl's strict sense of knowing considerably differs from the social, cultural SLA researchers' understanding of knowledge (see Section 2.2). Husserl's notion of knowledge allows for contrasting concepts in relation to knowledge, such as misunderstanding /correct (precise) understanding or illusion/reality. On the other hand, the social, cultural approaches to SLA only look at the subjective, relativistic aspects of knowledge, not clarifying how such contrasting concepts can be incorporated into their notion. In addition, Husserl's concept of intentionality of the mind provides the basis for resisting the ontological state of the mind that the social, cultural SLA researchers propose: that the mind is a social, cultural product. Intentionality, which allows one to get involved in the world, and perceive and know it, is the *quality* or *property* of the mind (Woodruff Smith & McIntyre, 1982). Thus, the idea that a person starts to make contact with other people and the world (which requires having intentionality) before the mind emerges from social interaction is insisting something impossible: instead, it appears to be much more plausible to consider that the mind exists prior to any social interactions and *intentionally* initiates engagements with the social world (Eccles, 1982, 1994; Nagel, 2012).

3.1.4 The third stage

Husserl's central concern throughout *the Sixth Investigation* (1970, pp. 660-869), which is the third stage of his analysis of knowledge, is to address what he had grappled with since the *First Investigation*, that is, how "the objectivity of the content known" is possibly attained despite "the subjectivity of knowing" (p. 42). As Willard (1982) notes, Husserl's realist perspective acknowledges the subjectivity of knowing. Willard states:

Certain time-worn philosophical questions about knowledge arise from the fact that the experiences – cognitive and otherwise – of each person are a part of his and only his life, and exhibit characteristics peculiar to him alone. My present perception of that tree out of this window and from this chair is indelibly *mine*. It has features that in all probability will never be combined in just *this* way again...As a particular event it is non-repeatable even within my own life stream. (p. 380)

However, Husserl (1970) suggests that there are irrefutable conditions that allow one to know the intrinsic qualities of the object of knowledge as they are through his/her subjective act of knowing. These three conditions for knowledge are:

- the *transcending* quality of the mind to *perceive (intuit)* the object of knowledge itself;
- the *laws of logic* being independent of actual acts of knowing and directing thought interconnectedness in conformity with necessities and possibilities; and,
- the *intersubjectivity* of communities within which knowledge is communally shared and validated/invalidated.

Firstly, Husserl's use of transcendence is to mean that the mind and thought of the knower can go beyond symbolic/cultural frames as well as his/her own mental representations, perceiving the object of knowledge itself. This is an idea that contrasts starkly with the Vygotskian sociocultural epistemology that claims that the human mind must be mediated by symbolic tools to perceive and cognise the world (see Lantolf, 2000a). Husserl suggests that, by transcending, the knower can keep comparing the relationship and quality of the thoughts of the object produced in the act of knowing with those of the object itself, and amending his/her own mental representations to be closer to the object progressively. For Husserl, when the former finally corresponds with the latter, the knower experiences, in Husserl's term, *fulfilment* with knowledge, the very state of "finding something to be as it is thought to be" (Willard, 1995, p. 138). Husserl's idea of fulfilment with knowledge reflects his assertion of the credibility of human perceptions and memories in general (although they sometimes fail us, more often they are reliable). It also indicates his recognition of the capacity of the human consciousness for being aware of the fulfilled (or unfulfilled) state of one's own knowledge.

As Husserl (1970) had already propounded at the earlier stages, the transcendence of the mind is possible because of the fact that the object of knowledge objectively exists independently of the knower's mind. At this state, he reconfirms this:

The object is intellectually grasped by the intellect, and especially by 'knowledge' (itself a categorical function), but it is not thereby falsified [or changed]... Otherwise... relational and connective thought and knowledge would not be of what it is, but would be a falsifying transformation into something else. (pp. 819-820).

Here it needs to be stated that the objectivity of knowledge that Husserl suggests from his realist perspective is distinguished from the positivist idea of objectivity, which Kukla (2006) refers to as *aperspectival objectivity*. She illustrates:

[Historically there are] several strands of objectivity... Among these, facts or objects have *ontological objectivity* to the extent that they are real and independent of their appearance to us. Derivatively, a claim or judgement has ontological objectivity if it asserts such ontologically objective facts. *Aperspectival objectivity*, in contrast, attaches in the first instance neither to facts nor judgements, but to warrant. A claim has *aperspectival objectivity* to the extent that its warrant is independent of the contingencies of the claimant's personal character and context. *Aperspectival warrant* is what is left over when the contingent self is forcibly exorcised from the epistemic scene. (pp. 80-81)

Evidently, Husserl's argument for the ontological objectivity of knowledge is not about the warrant declared by authorities (e.g., expert groups) but about the independence of the object of knowledge from the knower, and, thereby, the potentiality of the knower's judgement. Upon this condition of the object of knowledge being objective, transcendence and then fulfilment with knowledge can possibly occur. In addition, truth (or falsity) and conditions of truth (or falsity) of propositions and concepts as complex, referential thoughts emerge from "agreement [or disagreement] between propositional meaning and the correlative state of affairs" (Willard, 1984, p. 189). Thus, for example, I confirm or disconfirm my thinking of a transparent glass door before me by actually checking whether or not there is a glass door. Husserl (1970) notes:

What the [mere] intention means, but presents only in a more or less inauthentic and inadequate matter, the fulfilment – the act attaching itself to an intention, and offering it 'fulness' in the synthesis of fulfilment – sets directly before us, or at least more directly than the intention does. In fulfilment our experience is represented by the words: 'This is the thing itself'. (p. 720)

However, perceiving or intuiting the object of knowledge alone cannot be sufficient for knowledge (see Husserl, 1970, p. 725). This is because what is present "to us [can be] insufficiently conceptualized to be known" (Willard, 1995,

p. 143). Only when one understands the quality of the object and the relations of its parts by means of logical reasoning, and utilising and interlinking relevant concepts, the transcendence of his/her mind to the same object is likely to provide the person with fuller knowledge. For example, perceiving a crying child with his bleeding finger and pieces of broken glass next to him alone does not allow one to comprehend the situation unless the person infers that the child's wounded finger would have been cut by one of the glass pieces. Such inference involves a number of concepts, such as "Broken glass can hurt people" or "Children cry when feeling pain", and also causal relations between those concepts. In addition, transcendence is also not always a necessary condition for subject matter (scientific) knowledge. This is for the reason that following common senses, mathematical formulae or scientific methods can produce knowledge even if the objects of knowledge are not present to us (Husserl, 1970, p. 201). In those cases, such inauthentic means still need to be "analysed as to [whether or not] they produce true results, and thus transformed into genuinely logical techniques that provide knowledge" (Willard, 1995, p. 143).

The second condition for knowledge, applying the laws of logic, is what is involved in conceptualising the object of knowledge through reasoning. In discussing this second condition, it is necessary to understand what is occurring in the process of conceptualising the known, through which thoughts are interrelated with each other. Husserl illustrates this process with the theory of *wholes* and *parts* that he began to develop after the *Third Investigation* (1970, pp. 435-489) (Willard, 1982, 1995 & 2003a). This theory is, in short, a clarification of how thoughts (the parts), such as concepts and propositions of the same object are interrelated with each other, getting integrated into the united whole, a piece of knowledge of the object. Husserl (1970) states:

All perceiving and imagining is... a web of partial intentions, fused together in the unity of a single total intention. The correlate of this last intention is the thing, while the correlate of its partial intentions are *the thing's parts and aspects*. Only in this way can we understand how consciousness reaches out beyond what it actually experience. It can so to say mean beyond itself, and its meaning can be fulfilled. (p. 701)

Husserl (1970) also refers to the principle for interconnecting thoughts into a piece of knowledge (the whole) as *founding* or *foundation* (pp. 463-464, 581, 651 & 817). That is, certain ideas are enacted after, or founded upon other ideas, the

whole process of which results in knowledge generation. The interrelations of thoughts of the same object in the process of knowing the object can be linguistically expressed. Husserl calls the linguistic expression of thoughts and thought relations as *identification* (naming the object in language), for the reason that they, “give to the object the character of a thing known” (Husserl, 1970, p. 697), and the meanings bestowed to the object “tangibly adheres to its object” (p. 688) (see Section 3.1.6 for a more review of identification).

According to Husserl, only when the knower applies the laws of logic (or pure logic) to interrelating thoughts of the moments, parts and whole of the same object, can his/her understanding of the object become the knowledge of the object as it is. Husserl (1970) stresses, “The peculiar patterns of combination of the concepts, propositions and truths which form the idea unity...can of course only be called ‘logical, in so far as they are instances falling under logic’” (p. 186). Simons (1995) notes:

[Husserl] wished to refute psychologism, the view that the laws of logic are descriptions of regularities in the way we think, which implies that different ways of thinking may embody distinct but equally acceptable logics. Husserl wishes instead to show there is a single logic which is objectively binding for all...the laws of logic are viewed as principles governing a timeless realm of abstract, or to use the term Husserl preferred, ideal meanings. (pp. 106-107)

The most central nature of logic is, therefore, that it is not what one experientially or culturally learns, but what belongs to universal, *a priori* knowledge, or to the lawfulness of essences (Husserl, 1970, p. 446 & p. 833). Explicating the *a priori* nature of laws of logic, Willard (2003b) states that “[t]hey would remain true if no minds existed” (p. 73). He further states:

Those laws do not tell you how you have to think, but they certainly tell you how you can think if you would think coherently and consistently. They cannot force you by an unconscious power to follow...a course of thought that will only let you go from truth to more truth, but anyone who consciously chooses to follow such a course of actual thought can be sure they are doing so by subjecting their thinking to the patterns laid out by the laws of formal logic. (p. 75)

One may or may not think in accordance with the laws of logic that “dictate relevant necessities and possibilities” for concepts, propositions and interrelating thoughts (Willard, 1982, p. 396). Consequently, the person can or cannot obtain

true knowledge of the object. The laws of logic also allow one to examine whether his/her own or others' knowledge is valid or invalid.

Husserl's realist view of logic evidently contrasts with the cultural (linguistic) relativist assumption that logic is socio-culturally derived and produces culturally relative knowledge and truths (e.g., Gumperz & Levinson, 1996; Hill & Mannheim, 1992; Hyland, 2005; M. Johnson, 1987; Kaplan, 1972, 1987; Kramsch, 2004). Rather, his overall concept of laws of logic suggests how the human mind in specific cultural contexts can follow rigorous, coherent logic in interconnecting thoughts, eventually generating knowledge the truthfulness of which is valid across time and space. In this regard, Woodruff Smith (2003) clearly states, "Where today's logicians take a theory to be a set of sentences in a well-defined language, Husserl took the theory to be the system of propositions expressed by such a set of sentences" (p. 30). The definition and description of logic provided by Geisler and Brooks (1990) is compatible with Husserl's notion of logic. According to them, logic is ordering thoughts in a way to "*come to correct conclusions by understanding implications and the mistakes people often make in thinking*" (p. 13). They also note that there are a number of different kinds of logic, "but the basic laws of logic are the same for all logic...Aristotle [whose logic has passed onto Western culture] didn't *invent* logic; he only helped to *discover* it" (p. 14).

Finally, Husserl's third element of objective knowledge is the intersubjectivity (a state in which the cognitions of different individuals converge onto the same object of knowledge) of the knower's community. In a particular community "a harmonious exchange of experiences" (1989, p. 85) or intersubjectivity takes place. This enables the community members to share knowledge and "verify [each other's] memory, check [each other's] inference, evaluate [each other's] hypothesis" (Willard, 1982, p. 381). Thus, for Husserl, intersubjectivity is a way of achieving the objectivity by means of crosschecking the validity of the knowledge of an object, which is possible *because* the object exists objectively and (thus) independently of those involved in that knowledge validation. This intersubjectivity that Husserl proposes has a subtle, but clear difference from the aperspectival objectivity that Kukla (2006) identifies, which claims that a certain piece of knowledge holds the objective truth *because* it is the knowledge of a certain authoritative group of people.

Intersubjectivity as the third condition of objectivity of knowledge requires clarifying what elements of knowledge can be shared by many people. As previously mentioned in this section, a person's perception or experience of a particular object at a particular moment cannot be repeated or shared with anybody else, so it still remains unique and subjective (Husserl, 1931, p. 105). What can be intersubjectively shared among community members and make knowledge objective are universalities or abstract essences embedded in particular objects at particular moments (Moreland, 1989), which are often cognised and expressed as general concepts, propositions and theories. With reference to this, Willard (1982) notes that "what can be repeated and shared on Husserl's view are of course the 'significational species' or essences that enter into cognitive experiences as their intentional qualities or determinations" (p. 396).

The combination of the three conditions for the objectivity of knowledge – the transcending quality of the mind, the laws of logic and the intersubjectivity of epistemological communities – is what makes knowledge possible. In this regard, an approach which claims that knowledge is a merely shared belief co-constructed by people through language in a particular cultural community and thus there are only culturally relative truths, seems to "threaten to undermine the very possibility of knowledge itself" (Willard, 1982, p. 380). Particularly, if cognition or knowledge "is a linguistic affair" (Husserl, 1970, p. 158), "[t]ruth and existence is relativized (in various ways) to *human language*" (Willard, p. 1984, p. 192).

Willard also states:

Husserl supposes...that knowledge is ultimately a matter of seeing objects and events and Ideas – including those involved in knowing itself – to be the way they are *in themselves*, not as they are in relation to a mind or a language or a culture or a form of life. The seeing referred to need not, moreover, be in any sense linguistic. For him, if there is no insight into the way things are there is no knowledge. (p. 192)

Just being co-constructed by people in the same culture does not guarantee a piece of information to be knowledge. History clearly teaches us that numerous notions and ideas that were co-constructed and once believed as knowledge by a number of people or even by a whole society turned out to be false knowledge. It is often found that religious cult groups or even terrorist groups, which are practically cultural communities or communities of practice, co-develop illusions and believe them as truthful knowledge of the world. If defining knowledge as just shared

meanings co-constructed by people in a particular cultural community, the ground to discern rightly whether pieces of information, such as the ones above, are true/false, good/evil or real/unreal would be lost.

3.1.5 Graduated nature of knowing

Husserl (1970) acknowledges that *pure fulfilment* or *completely full knowledge* is a rare phenomenon (p. 831), no matter if we “assure ourselves that we could do so if we wished” (Willard, 1995, p. 153). As Husserl (1970) cautions, there are “too many false and even absurd recognitions”, which are often mistaken as real fulfilments, because false knowledge “borrows its character of fulfilment from the authentic case” (p. 727). In this regard, Woodruff Smith and McIntyre (1982) point out that partial and superficial knowing does not result in adequate knowledge of the person or thing of knowing. Willard (1995) suggests this type of “lowest level of fulfilment” even if it is not always false knowledge, provides “only an abstract descriptive knowledge of objects that does not reveal their identity” (pp. 154-155).

Husserl (1970) thus emphasises that, even in the case in which the knower achieves a full knowledge of an object, such fulfilment with knowledge is usually progressive. That is, it is a continual process of “serial fulfilments”, through which a level-higher fulfilment is arrived at after lower-level fulfilments (and each level of fulfilment involves syntheses of sub-fulfilments as well) (pp. 735-736). An important point here is, however, not to measure the degree of fulfilment of knowledge that one gains, but to understand how the graduated nature of knowledge is possible. Knowledge is not merely “the consensual belief of an epistemic community” (van Dijk, 2003, p. 85), or something linguistically constructed through social interactions in the way that the postmodern social constructivist insists (e.g., Lincoln & Guba, 1985). Rather knowledge involves the actual object of knowing itself, which essentially allows one to make a gradual progress of his/her knowledge over time.

In Section 3.2.2, I consider how second language learning would take place in the context of the progressive development of academic knowledge, drawing on Widdowson’s (1983, 1990) concept of language learning through the negotiation of meaning.

3.1.6 The nature of language and its function for knowledge acquisition and communication

This section highlights Husserl's notion of language in his theory of knowledge, which I will relate to explaining the SLA of the participants of this present study. Language or the philosophy of language was not Husserl's main concern: his description of language is "mainly to support his conception of logic", a condition for knowledge (Simons, 1995, p. 106). Nevertheless, he is regarded as one of the philosophers who exerted considerable influence on the modern philosophy of language, particularly on speech act theory (Burkhardt, 1990).

For Husserl, language is a formal property that itself is one of objects of knowledge (see Section 3.1.2). As a number of scholars after him also propose (e.g., Halliday, 1973; Searle, 1969, 2002; Widdowson, 1983), he discerned that language has two functions – to mean and to communicate (Simons, 1995). However, unlike the common emphasis on its function to communicate, Husserl considers the function to mean is the more fundamental aspect of language. This is expressed in his definition of language as "a system of signs by means of which, in contrast to signs of other sorts, an expressing of thoughts comes to pass" (1969, p. 20). He also states, "[W]hen we live in the understanding of a word, it expresses something and the same thing, whether we address it to anyone or not" (1970, pp. 278-279).

Another significant feature in Husserl's notion of language is his ontological view that thought and language are two separate systems or entities in the mind, which I mentioned in the previous sections. He puts it:

[T]hinking – a word the sense of which must be gathered from the often-used combination...language and thinking...has an enormously broad sense[,...]the whole of man's psychic life: For indeed it is often said also that ...in language man expresses his psychic life...But here we must be more cautious. Actually man does not "express" *all* his psychic life in language; nor is he ever able to do so...[T]he word "expressing" [implies] that, with every word and every combination of words...the speaker means something. Stated more precisely...the speaker's practical intention is obviously not directed ultimately to the mere words, but is directed "through" them to their signification. The words carry significative intentions; they serve as bridge leading over to the significations, to what the speaker means "by" them. (1969, p. 22)

The ontological separateness of thought and language that Husserl describes above is well articulated by Moreland (2012):

A proposition [thought] is the content of a sentence. For example, *It is raining* and *Es regnet* are two different sentences that express the same proposition. A sentence is a linguistic object consisting in a sense-perceptible string of marking formed according to a culturally arbitrary set of syntactical rules, a grammatically well-formed string of spoken or written scratchings/sounds. Sentences are true just in case they express a true proposition or content. (p. 20)

The ontology and function of language in relation to thought that Husserl proposes amounts to its role in the acts of *identifying* and (thus) *objectifying* the object of knowledge in the process of knowing mentioned in Section 3.1.4. The act of identification is linguistically expressing thoughts and thought relations that bestow meanings to the objects of knowledge. In addition, B. Smith (1990) summarises Husserl's notion of the function of language in terms of the relating objectifying acts and the objects of knowing:

Husserl's theory of language and of linguistic meaning is based on this theory of objectifying acts...Husserl argues, be objectifying acts: the acts whose species are linguistic meanings are in every case acts of "representation" or "object fixing"... More precisely: all expressions are associated either with *nominal acts* – which are directed towards objects in the narrower sense – or with *acts of judgement* – which are directed towards states of affairs (p. 35).

Thus, the acts of identification and objectification in knowing involve both nominal acts and acts of judgement, or propositional acts, which produce names and sentences respectively (Simons, 1995). In addition, since the object of knowledge is often not just an isolated thing (object) or state of affairs but "whole *manifolds* of correlated objects and states", the outcomes of identification can be even interrelated sentences (discourse), up to forming of a theory (p. 134) (also see Husserl, 1969).

Linguistically expressed knowledge can be shared by many people, and because of that the language used to express (mean) knowledge also fulfils another function of language – the communicative function. For Husserl, This occurs when the utterance of a speaker "intimates to the hearer a fact about the mental acts of the utterer which the hearer understands" (Simons, 1995, p. 109). The use

of language emerging from Husserl's theory of knowledge can be found mainly in relation to three cognitive acts, which are:

- to identify and objectify the object of knowledge by expressing extra-linguistic concepts or propositions relating to the same object;
- (in particular) to express thoughts or ideas for the purpose of sharing knowledge with others; and,
- to understand others' thoughts in knowledge linguistically expressed in forms of words, sentences or theories (i.e., when the object of knowledge is linguistically encoded knowledge of others).

Crucially, for Husserl, since logic is a key condition for knowledge, the soundness and meaningfulness of language (text) that expresses knowledge can be achieved when logic is applied to the thoughts and thought-relations consisting of the knowledge (Simons, 1995). For example, as pointed out in Moreland's (2012) quotation above, sentences are linguistically encoded propositional thoughts and thus related sentences are related thoughts. Then it is a universal phenomenon that people assign two-value semantics (Willard, 1984) or interpropositional relations, such as Simple Contrast or Condition-Consequence (Crombie, 1985). For Husserl, assigning semantic relations itself does not bestow meaningfulness and soundness to language, but it is only possible when logic governs thought-relations that are expressed as sentence relations (Willard, 1984).

Husserl's realist notion of language in knowledge, which involves the function of logic in language use, is not of using a particular language but of general principles that can be applied to using different languages in attaining and demonstrating knowledge. In Section 3.2.3, I will initially consider how Husserl's notion of language would be relevant to English-medium academic contexts. Then Chapter 6 will discuss this issue more extensively based on the findings of the study.

Summary and implications of Section 3.1

Section 3.1 reviewed Husserl's theory of knowledge, specifically in relation to the nature of the mind, cognition, knowledge and language, in order to establish the basis for investigating SLA in conjunction with the development of academic knowledge. Since the need for the study has arisen from dissatisfaction with the

three paradigms in the study of SLA, considering these theoretical elements has been imperative.

Husserl's exposition of the mind and cognition fundamentally challenges the notion that the mind and cognition are the products of social, cultural processes. The concept of intentionality, a core quality of the mind, suggests that the very existence of the mind and cognition prior to any social interactions is what enables human beings to engage in social interactions. In addition, Husserl's notion of knowledge plainly differs from the idea in the study of SLA, which claims that knowledge is socially co-constructed through the use of language. He acknowledges that knowledge occurs in a specific epistemological culture or context, and reflects the structure or pattern of the social cognition of the culture (1970, pp 185-186). He also states the important role of language in knowledge attainment and communication. However, he further claims that developed knowledge, which is valid and truthful beyond the particular epistemological culture, can be obtained when the three conditions of the objectivity of knowledge – transcending quality of the mind, the universal laws of logic and communities – are met.

Based on this understanding of how knowledge is formed, and what the nature of knowledge is, the use of language in relation to the act of knowing has been derived. Most centrally, language is used in the process of knowing to identify and objectify the object of knowledge through expressing thoughts of the same object and the interrelationship between such thoughts and their expression. This language use reflects the function of language to mean, which is, according to Husserl, more fundamental than its function to communicate. Nevertheless, the need for using language for a communicative function also arises, when the knower intends to share his/her linguistically encoded knowledge with others, who intend to understand such knowledge.

In the light of Husserl's theory of knowledge and language, Section 3.2 will centrally review theories and concepts that account for the mechanism of the language acquisition, and the structure and operation of extra-linguistic and linguistic knowledge in English-medium academic contexts.

3.2 Theories, concepts and issues in examining SLA in English-medium academic contexts

This section reviews theories, concepts and issues relevant to investigating SLA in an English-medium academic context from the phenomenological realist perspective established in Section 3.1.

Section 3.2.1 reviews the literature on undertaking the literature review (LR) for a research project, which suggests that it is a process of developing academic knowledge and demonstrating it. Then Section 3.2.2 reviews Widdowson's theory of second language learning through the process of the negotiation of meaning, and relates it to a Husserlian perspective of the gradual progress of knowledge. The following Section 3.2.3 reviews Bruce's (2008a) theory of genre knowledge that clarifies the elements and operations of extra-linguistic and linguistic resources required to comprehend and create texts in English-medium academic contexts, discussing the process and scope of SLA in the contexts. In the section, I also briefly discuss the possible connection between academic genre knowledge in English-medium academic contexts and Husserl's (1970) notion of operating logic in language use. In the next two sections, Sections 3.2.4 and 3.2.5, I review issues relating to the language user's competence and criticality of second language speakers of English.

3.2.1 Undertaking the LR for a research project

Various definitions of the term literature review suggest that it is demonstrating knowledge relevant to a research project for which one carries it out. For example, some of the LR state that it is:

[what gives] a picture of the state of knowledge and of major questions in your topic area (Bell, 2005, p. 110)

an important chapter in the thesis, where its purpose is to provide the background to and justification for the research undertaken (C. Bruce, 1994, p. 218)

a written summary of journal articles, books, and other documents that describes the past and current state of information on the topic of your research study (Creswell, 2012, p. 80)

[what] extracts and synthesises the main points, issues, findings and research methods which emerge from a critical review of the readings (Nunan, 1992, p. 217)

a coherent argument that leads to the description of a proposed study (Rudestam & Newton, 2001, p. 57)

In addition, Paltridge and Starfield (2007) suggest that the LR aims to “contextualize the student’s research” through describing and synthesizing “the major issues related to the topic of the research” (p. 99). That is, as a final product, the LR centrally demonstrates the researcher’s knowledge of the previous literature on his/her particular subject area relevant to her research topic.

While the definitions of the LR provided above emphasise its final outcome, some LR guidance books considers that undertaking the LR involves the process of knowledge development that must occur before knowledge demonstration. For example, Ridley (2008) notes that the undertaking of the LR is “to engage with, understand and respond to “the relevant body of knowledge underpinning [one’s] research” and to show “you have engaged with, understood and responded to such knowledge (p. 2). Similarly, Hart (1998) also states:

[A] review of the literature is important because without it you will not *acquire an understanding* of your topic, of what has already been done on it, how it has been researched, what the key issues are...you will be expected to *show* that ...you have understood the main theories in the subject area...The review is therefore a part of your academic development – of becoming an expert in the field. (p. 1 – emphasis added)

Therefore, in all, undertaking the LR is a process of developing a body of knowledge in a particular subject field relating to the research topic that the researcher investigates, and demonstrating the knowledge to others. Particularly, for PhD research projects, the LR is expected to produce an outcome that involves “the presentation and use of the literature [in a way] that scholarliness is clearly apparent” (Holbrook, 2007, p. 1021).

A concept that is relevant to the LR as a process of developing knowledge to undertake a research project is that of *textual experience*. Textual experience refers to indirect experiences that gained from “books, lectures, lessons, conversations, etc.” (Rosen, 1998, p. 30), enabling the researcher to expand his/her “interpretative repertoire” (Cousin, 2010, p. 15). Cousin adds:

We might not have experienced [what we need to know about our research] personally but...we can immerse ourselves in the scholarship to expand what we are alert to in our own assumptions and those of others ... We also enter the research terrain with theoretical perspectives and ideas about what

to look for on the basis of our textual experience. If that experience is limited, we will limit both the questions we ask and the responses we hear. (p. 15)

Thus, the concept of gaining textual experiences to prepare for subsequent research fieldwork is in effect integral to the process of doing the LR, as a result of which one can “formulate research questions... identify relevant theories...and methodology”, and later have insight to understand her data (Ridley, 2008, p. 3). Significantly, the concept also suggests expanding the concept of undertaking the LR from having “a written dialogue with [other] researchers” (p. 2) to engaging in both written and spoken interactions with people in academic contexts, in the process of developing knowledge (textual experience) for the research project. For example, to develop knowledge while undertaking the LR in a research project, the researcher not only engages in the central activity of reading relevant literature. He/she also engages in diverse social interactions, such as conversations with supervisors, email exchanges with authors, and asking questions at academic functions.

3.2.2 Widdowson’s theory of language learning through the negotiation of meaning

This section reviews Widdowson’s (1983, 1990) theory of language learning through negotiating meaning embedded in text, to understand how second language would be acquired in the process of undertaking an LR as conceptualised in Section 3.2.1.

The term *negotiation of meaning* has been widely used by SLA researchers to refer to a particular conversational exchange or strategy that interlocutors undertake to prevent and repair communication breakdowns (see Ellis & Barkhuizen, 2005, pp. 166-170). However, Widdowson uses the same term much more broadly, stating that “language use can be regarded as “essentially a matter of the negotiation of meaning” (1990, p. 105). He (2007) puts it:

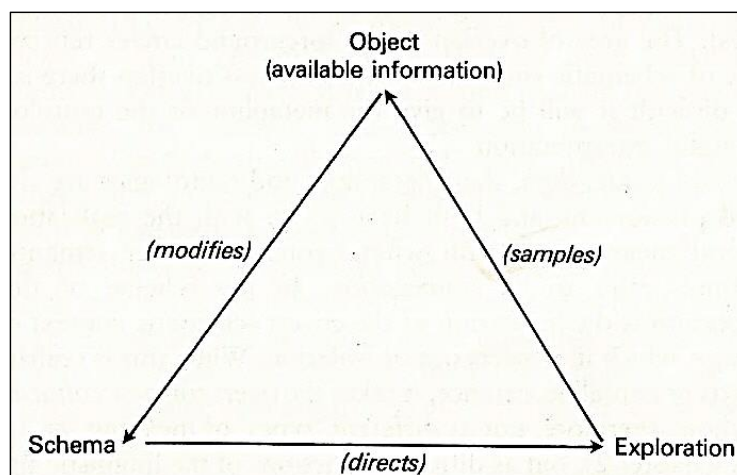
For communication is always a matter of negotiating some kind of common agreement between the parties in an interaction. The first-person party, the sender (P1), formulates a message by drawing on systemic and schematic knowledge and the second-person party, the receiver (P2), brings similar knowledge to bear in interpretation. Communication is effective to the extent that there is some convergence between the two. (p. 54)

Thus, the negotiation of meaning that Widdowson conceptualises is not just a certain strategy that deals with problematic situations occasionally emerging during conversation. Instead, it refers to the person's *overall intention* to communicate what he/she means or to understand what others mean, and also *all cognitive acting* to achieve the intention. This negotiation of meaning basically involves both message producer (P1) and message receiver (P2), and their mutual effort to exchange meaning. However, in relation to language learning, Widdowson mainly focuses on P2's mental processing occurring while engaging the negotiation of meaning, and knowledge elements that P2 draws on for this processing. This mental processing and knowledge elements involved in the process of negotiation of meaning are already indicated in his statement above, and in what follows I review them more carefully.

Firstly, Widdowson suggests *schemata* (schematic knowledge) and linguistic systems (systemic knowledge) as two types of knowledge that P2 utilises to negotiate meaning embedded in P1's spoken or written text. Schematic knowledge refers to the knowledge of P2 that he/she considers as relevant to the meaning intended by P1, while systemic knowledge means linguistic resources necessary to decode the meaning. With the term *schemata*, Widdowson refers to both the *schemata of the content* of the meaning and the *schemata that I wish to call as procedural schemata* although he himself did not use this term. He instead introduces two types of *schemata*, namely *ideational schemata* or *frame of reference* and *interpersonal schemata* (1983, 1990 & 2007), both of which may be considered as procedural schemata. Ideational schemata are drawn on when engaging in a *non-reciprocal* negotiation of meaning embedded in a written text to identify the overall flow or organisation of the text. On the other hand, interpersonal schemata are activated when P2 undertakes a *reciprocal* negotiation of meaning while having an interactional conversation which allows him/her to anticipate the overall procedure of the conversation (1990).

Secondly, for Widdowson (1983), P2's *perceptual cycle* occurs between his/her schematic knowledge and the meaning that P1 intends to communicate during the process of the negotiation of meaning. Figure 3.1 represents this perceptual cycle.

Figure 3.1: P2's perceptual cycle during the negotiation of meaning



Source (Widdowson, 1983, p. 66). Reprinted with permission.

Through the perceptual cycle, P2 “is directed to explore phenomena by a particular schema. This exploration leads to a sampling of information, which in turn modifies the schema which activated this ‘perceptual cycle’ in the first place” (p. 65). Thus, through the perceptual cycle, the initial content schema that P2 has drawn on becomes his/her actual knowledge of the meaning embedded in P1’s text. Realism in Widdowson’s concept of the negotiation of meaning has been recognised (e.g., Price, 1999), and to a large extent, this notion of having a perceptual cycle for negotiating meaning can be seen as a specific case of Husserl’s notion of knowledge attainment in general, in which the object of knowledge is the meaning intended by the other person. Particularly, the idea of schema modification through the perceptual cycle has a close resemblance to the gradual progress of developing knowledge in Husserl’s sense, which is to “have a sequence of representations of the same object...up to the point where, ideally, the object is completely given as it is thought of” (Willard, 1995, p. 146).

Widdowson’s notion of language learning through the negotiation of meaning centrally involves the perceptual cycle outlined above. As described in his aforementioned statement, Widdowson contends that the key for successful meaning communication is the convergence between P1’s and P2’s own schemata (both content and procedural) and systemic knowledge. Thus, when P1 and P2 share the common procedural and linguistic resources, from P2’s point of view, negotiating (understanding) the meaning that P1 intends is likely to be achieved successfully. According to Widdowson (1983) himself and many other scholars (e.g., Bruce, 2008a; Hyland, 2005, 2009; Swales, 1990, 2004), within a particular

culture or community, or even a particular subculture of a culture, the members share conventionalised procedural patterns and linguistic resources for communication. Therefore, if P2 happens to be a new member of a particular community who does not have enough knowledge of the procedural and systemic resources of the community, the undertaking of the negotiation of meaning can be a driving force to learn these resources. In this regard, Widdowson notes:

Schematic knowledge, then, is a necessary source of reference in use whereby linguistic symbols are converted into indices in the process of interpretation. But we should note, too, that language development itself, the acquisition of knowledge of symbolic meanings, is activated by the need to extend schematic knowledge so as to cope more effectively with the social environment...we need to identify areas of schematic knowledge which the learners will accept as independently relevant and worth acquiring so that the learning of the language is seen as the necessary means to a desired end. (1990, p. 103)

Here two important points need to be made. Firstly, Widdowson's notion of language learning through the negotiation of meaning implies that language learning involves not only the acquisition of linguistic systems, but equally importantly the acquisition of procedural knowledge or schemata of a particular community. This idea is more specified in Section 3.2.3 following while reviewing Bruce's (2008a) theory of genre knowledge. Secondly, according to Widdowson (1990), language learning through the negotiation of meaning naturally occurs in the context of the first language acquisition. However, he stresses that, in the case of negotiating the meaning embedded in a second language text, the negotiation may not automatically guarantee language learning. This is mainly for the reason that P2 is likely to activate his/her first language resources to understand meaning encoded by the second language, rather than solely depending on the second language sources encoding the meaning. Thus, for the sake of second language acquisition, the meaning negotiation should be accompanied by the person's intentional effort to use the procedural and linguistic resources of the second language for the negotiation:

The internalization of the system as a communicative resource is only likely to happen ...when there is a recurrent association of new schematic knowledge with new systemic knowledge. Such a state of affairs is normal in first language acquisition, where there is a concurrent discovery of language and the world, as I suggested earlier. But the focusing of form as a condition for comprehension, will usually have to be artificially induced by some contrivance or other in a foreign language situation (p. 112).

Thus, again, what Widdowson proposes here is that, to achieve second language learning, it is important for the person to make a purposeful and deliberate effort to utilise the procedural and systemic resources that encode the meaning as the main means by which he/she understands the meaning.

Here I wish to contrast Widdowson's notions about language learning with those of social, cultural SLA researchers, to articulate his suggestion of how language is learned. For example, language development through the type of meaning negotiation that Widdowson proposes differs from the language learning process that the SCT approach suggests, in which the knowledge of language is co-constructed "on the inter-psychological plane" prior to being internalised into "the intra-psychological plane" (Lantolf & Thorne, 2006, p. 153). Instead, for Widdowson, language learning centrally involves the voluntary, cognising effort and processing of the language learner's mind while engaging in spoken and written texts. In addition, his notion of language learning through the negotiation of meaning presupposes that the meaning intended by P1 can be (and should be) precisely transmitted to P2. On the other hand, social, cultural SLA researchers undermine the value of this concept of meaning transmission from P1 to P2 as if it treats P2 as a passive actor, also arguing that precise meaning transfer from one person to the other is not possible (e.g., Donato, 1994; Duranti, 1986; Jacoby & Ochs, 1995; Kramsch, 2000, 2004; Lantolf, 1996; Littleton & Whitelock, 2005; Prior, 1998). However, any interpretation of meaning without an accurate understanding of it would possibly result in communication breakdown or a certain degree of miscommunication. In such a situation, the function of the language encoding the meaning might be misunderstood and subsequently learning new features of the language would rather be hampered (see Chapter 6, Section 6.2.3 for a more in-depth discussion of issues in the linguistic relativist view).

Moreover, it would be necessary to mention that, although this study accords with Widdowson's overall notion of language learning, it diverges from his argument that implies that the rhetorical conventions of a particular culture regulate the thought (content) of people in that culture (1983, 1990 & 2007). Instead, for several reasons, I rather argue that a person's thought, although framed by language and culture to a certain extent, also moves beyond cultural/linguistic frames. Firstly, here it is proposed that people's ways of thinking are centrally

related to their worldviews and epistemologies, which are higher level frameworks than the rhetorical schemata of their local cultures. Thus, within a particular culture or subculture, such as an academic subject field, people who share the same rhetorical conventions display different ways of thinking based on their own worldviews (Hyland, 2009). Secondly, communication (the negotiation of meaning) between P1 and P2 is possible not just because they are in the same context within a particular culture (Kramsch, 2004). It is also achieved because, in their own minds, P1 and P2 instantiate abstract concepts used in the communication with real events or things beyond the immediate context and even beyond the culture (Willard, 1982). In addition, learning procedural and linguistic knowledge of a second language through the negotiation of meaning that Widdowson suggests would appear to be possible because the language learner can transcend his/her existing procedural schemata framed by his/her first language and culture. In fact, my last two points above, which Widdowson did not involve in his theory of language learning while emphasising the aspect that a person's thought is framed by cultural schemata, may need to be considered when understanding SLA through the negotiation of meaning.

I will draw on the review of Widdowson's notions of language learning through the negotiation of meaning in this section when discussing the SLA of the participants in relation to their striving to comprehend the target literature in Chapter 6, Section 6.3.1.

3.2.3 Knowledge areas involved in using and learning academic English and their operations: Bruce's theory of genre knowledge

The previous Section 3.2.2 initially discussed that learning the language of a particular culture involves learning both extra-linguistic procedural schemata and linguistic systems of the language. This section reviews Bruce's (2008a & b, 2011) theory of genre knowledge, to consider the areas of knowledge and their co-operation involved in language learning and use when the cultural milieu of a language is an English-medium academic context.

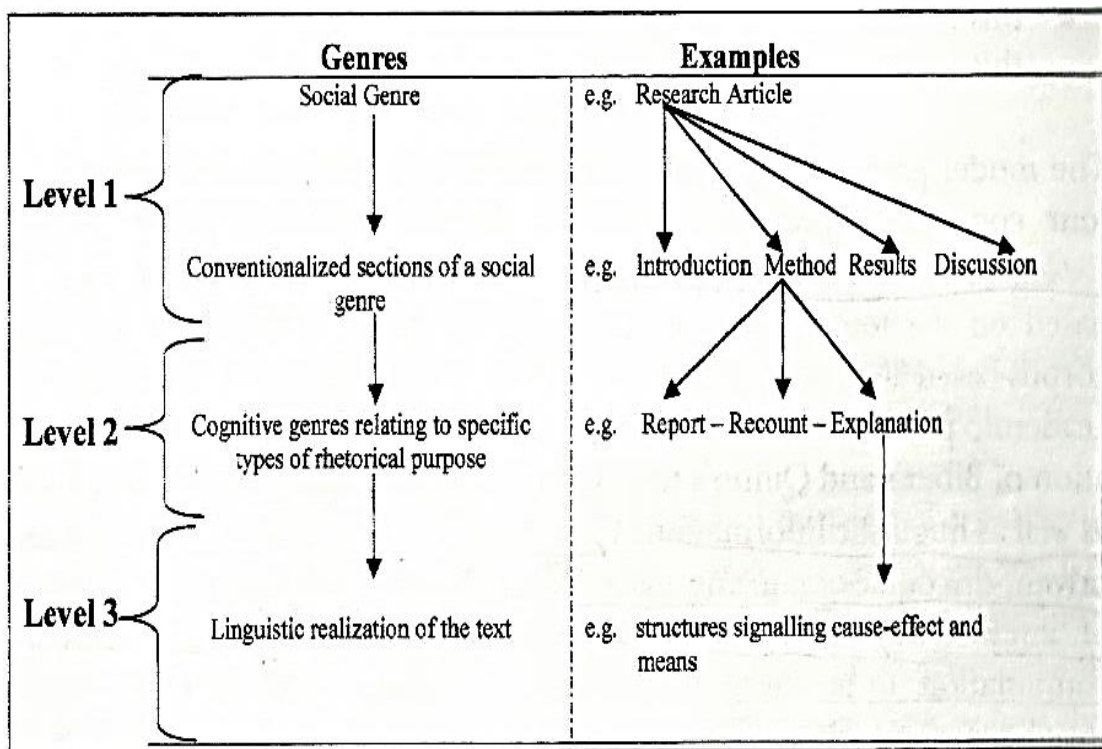
In his theory of genre knowledge, Bruce (2008a) is centrally concerned with the clarification of how extra-linguistic and linguistic elements of knowledge are operationalized in creating text in English-medium academic contexts. He suggests that language use in the contexts centrally involves creating text "that is

both linguistically accurate and socially appropriate” by integrating “a wide range of different types of knowledge” (p. 1). He argues:

[O]ne of the crucial issues in many of the theories for classifying discourse (such as in terms of genres or text types) is the nature of the relationships between extra-linguistic knowledge and linguistic knowledge. Some have found it convenient to focus solely on linguistic knowledge around a social genre construct, thus avoiding many issues associated with joint models that combine linguistic, cognitive and social knowledge within a framework for rhetorical organization. (p. 83)

The significance of his argument is that it provides a basis for reconsidering the scope of language learning from solely looking at the acquisition of linguistic knowledge to examining both extra-linguistic and linguistic resources essential for successful language use in academic contexts. In addition to this, Bruce’s argument above also intends to contrast his genre knowledge model particularly with the *systemic functional approach* that the language socialisation (LS) approach has drawn on to underpin their perspective of the function of language (see Section 2.2.4). He points out, “[I]n the case of the systemic functional approach, the lexico-grammatical characteristics tend to be regarded as genre-defining” (p. 35), an approach that echoes the social constructivist notion that linguistic knowledge defines extra-linguistic knowledge or thoughts. With such concerns, he proposes the hierarchical relation and operation between extra-linguistic and linguistic knowledge in creating socially appropriate academic text with the concepts of *social genre* (hereafter SG) and *cognitive genre* (hereafter CG) knowledge. Figure 3.2 illustrates the relationship between extra-linguistic and linguistic knowledge and its operation occurring when a person “create[s] a whole extended written text” (Bruce, 2008a, p. 94), involving the concepts of SG and CG.

Figure 3.2: The relationship between extra-linguistic and linguistic knowledge and its operation



Source (Bruce, 2008a, p. 95). Reprinted with permission.

According to Bruce (2008b), SGs are “socially recognized constructs according to which the *whole* texts (or conventionally recognized sections of texts, such as Methods sections in research articles) are classified in terms of their overall purpose and function” (p. 39). Academic text has been identified with other constructs such as *genre* (e.g., Swales, 1990), or *discourse types* (Virtanen, 1992), and particularly Bruce’s construct of social genre is intended to articulate the socially conventionalised aspect of academic text. The key notion of his genre knowledge theory is that the linguistic realisation of the content of academic knowledge by means of types of SG is mediated by thought- or text-organising cognitive patterns. The concept of CG refers to such cognitive patterns, for the reason that these patterns are those of extra-linguistic psychological processing occurring while creating academic texts. Bruce (2008b) defines CGs as “the overall cognitive orientation and internal organization of a segment of writing that realizes a single, more general rhetorical purpose to represent one type of information within discourse (p. 39). He states that “whole texts realizing different social genres (such as scientific reports) typically combine and frame a range of cognitive genres” (2008b, p. 140). Through his research He has identified four different types of CG that frequently appear in academic texts, namely:

- *report* – the presentation of data or information that is essentially non-sequential
- *explanation* – the presentation of information with the orientation on means
- *discussion* – a focus on the organization of data in relation to (possible) outcomes / conclusions / choices
- *recount* – presentation of data or information that is essentially sequential or chronological (p. 96)

Bruce (2008b) identifies four different levels of organisational knowledge of CGs (from higher to lower), which are image schemata (M. Johnson, 1987), discourse patterns (Hoey, 2001), cognitive processes (Crombie, 1987) and interpropositional relations (Crombie, 1985). Particularly, at the lowest and most specific level of the model, interpropositional relations creating binary values, such as Condition – Consequence, are salient for different CGs to be a coherent rhetorical unit. These relations between propositions are claimed to reflect universal human conceptual processes across different languages and cultures, although the linguistic encoding and realisation of such relations is culturally specific and unique (Crombie, 1985). Table 3.1 provides Bruce's (2008a, p. 97) CG model with the definitions of semantic relations between two value propositions from Crombie (1985, pp. 18-26).

Table 3.1: Cognitive genre model

Cognitive genre	Rhetorical purpose	Image Schemata	Discourse patterns	Cognitive processes	Interpropositional relations or Semantic relations between propositions
Report	Presentation of information that is essentially non-sequential	WHOLE-PART; UP-DOWN	General-Particular (Preview-Details)	Associative	Amplification: This relation involves explicit or implicit repetition of the propositional content of one member of the relation in the other member, together with a non-contrastive addition to that propositional content Bonding: This is a not-elective, not-sequential relation between conjoined or juxtaposed propositions
Explanation	Presentation of information with a focus on means by which something is achieved	SOURCE, PATH, GOAL; LINK	General-Particular (Preview-Details)	Logico-deductive; Temero-contigual	Means-Purpose: In this relation, the purpose member outlines the action that is/was/will be undertaken with the intention of achieving a particular result Means-Result: The means member states how a particular result was/will be or can be achieved
Discussion	Focus on the organization of data in relation to possible outcomes, conclusions or choices	CONTAINER ; LINK	General-Particular (Generalisation-Examples); Matching Relations; Problem-Solution	Logico-deductive	Simple Contrast: The is a relation involving the comparison of two things, events or abstraction in terms of some particular in respect of which they are different Contrastive Alternation: This relation involves a choice between antitheses. Where two things, events or abstractions are involved, they are treated as being in opposition Bonding Reason-Result Grounds-Conclusion: A deduction is drawn on the basis of some observation Concession-Contra-expectation: In this relation, the truth of an inference is directly or indirectly denied
Recount	Presentation of data that is essentially chronological	SOURCE, PATH, GOAL	Problem-Solution	Tempero-contigual	Chronological Sequence: The relation of Chronological Sequence provides the semantic link between event propositions one of which follows the other in time. These events, which need not be in the past, may be long or short in duration

Sources (Bruce, 2008a, p. 97; Crombie, 1985, pp. 18-2)

In addition, the knowledge of CGs also regulates the use and learning of the knowledge of linguistic systems necessary to utilise to incorporate prototypical CGs and thus eventually appropriate SGs into academic writing, such as:

- textual grammar – the use of items of grammar and syntax as integrated features of a text (2011, p. 84)
- metadiscourse – the means by which propositional content is made coherent, intelligible and persuasive to a particular audience (Hyland, 2005, p. 39), which is related to writer stance, an element of social genre knowledge (2008a, 2011)
- vocabulary knowledge – vocabulary items that are relevant to academic writing (2011, pp. 96- 98)

According to Bruce (2008a, 2011), native speakers of English are likely to have implicit knowledge of the SGs and CGs recognised and employed in English-medium academic contexts arising from their prior knowledge and experiences of texts. However, second language speakers of the language, particularly novice writers may not have developed this type of academic English genre knowledge. Therefore, following his suggestion, some important points can be made in considering SLA in an English-medium academic context. First, SLA in the context involves learning both SG and CG knowledge as well as linguistic systems. Second, the hierarchical cooperation between CG knowledge and the knowledge of linguistic systems in creating text may have some impacts on how academic English is learned by second language speakers of the language.

Here an important matter that needs to be discussed is the relation between genre conventions, particularly CGs and universal laws of logic that Husserl (1970) proposes (see Sections 3.1.4 & 3.1.6). This is for the reason that both CGs and laws of logic are suggested as extra-linguistic systems that one can apply to interrelating thoughts and then to the textual realisation of such interrelated thoughts. One evident distinction between the two is that while the four academic CGs that Bruce has identified are prototypical patterns particularly within the English-medium academic context, the logic that Husserl proposes is the absolute principle applied across different contexts. A potential issue is that most genre theorists would not agree with this distinction between CGs and logic, because

they take the cultural relativist position and suggest that there is logic of English language and this logic is part of English rhetoric (e.g., Hyland, 2005; Kaplan, 1972, 1987). However, when taking Husserl's realist position, it would be possible to consider academic CGs and laws of logic as two separate normalities or regularities that people need to incorporate into structuring thought and text in the English-medium academic context.

The review of Bruce's theory of genre knowledge in this section will be applied to discussing the findings of the present study in two aspects. Firstly, I will relate his notion of the hierarchical operation of extra-linguistic and linguistic knowledge, which is congruent with Husserl's notion of thought-language relation, to explaining the SLA of the participants occurring when producing text. Secondly, I will also employ his concepts of SG and CG as a framework for considering in what ways developing extra-linguistic elements of academic English competence is important (see Chapter 5, Section 5.4 & Chapter 6, Section 6.3.3). In doing so, I will further examine the issue raised immediately above: the possible autonomy of logic from the discursal conventions of English as a particular language.

3.2.4 Competence in learning and using language in academic contexts

This section reviews Widdowson's (1983) concept of the language user's *capacity* and Bruce's (2008a, 2011) clarification of *discourse competence* in order to develop a framework for understanding the competence in using and learning academic English in relation to developing academic knowledge.

Firstly, Widdowson (1983) introduces the concept of the language user's capacity, seeking to overcome a problematic issue of Hymes's (1972) concept of *communicative competence* that he perceived. When Chomsky first used the term of *competence*, the concept that Chomsky intended was not a speaker's actual ability to use language, but the underlying grammatical knowledge as an innate linguistic disposition. Later, proposing the concept of *communicative competence*, Hymes (1972) sought to account for the actual ability to use language with the construct of competence. That is, as Widdowson (1989) notes, Chomsky regards competence as a potential quality, while Hymes sees it as actual capabilities involving both knowledge of language and ability for using it. In relation to this concern with the speaker's knowledge and ability for actual linguistic

performance, Widdowson (1983) himself as well as other scholars (see Brown, 2007; Lightbown & Spada, 2006) have acknowledged the significant contribution of the concept of communicative competence to studying second language teaching and learning.

Nevertheless, Widdowson (1983) argues that the concept of communicative competence still retains the “analytic character” that Chomsky’s competence problematically has, as “it refers to an *analyst*’s construct and not a *user*’s” (p. 23). He suggests that its four parameters (possibility, feasibility, appropriateness and actualising ability in real performance) are intended to describe “a person’s ability to make judgements about the extent to which a linguistic expression conforms to pre-existing norms for language activity” (p. 24). As a response to this issue of the analytic character of Hymes’ concept of competence, Widdowson (1983) suggested that the notion of *capacity* is the knowledge of and ability to use systemic (i.e. rhetorical and linguistic) resources in meaningful and creative ways.

After his 1983 book, he did not use the term of capacity anymore. Instead, he appears to use his concept of capacity to refer to the language user’s competence. For Widdowson, therefore, the language user’s competence is being able to utilise schematic and systemic knowledge in the negotiation of meaning “whereby schematic knowledge is recurrently projected and modified” (p. 67) (see Section 3.2.3). As outlined in Section 3.2.2, Widdowson (1983, 1990) considers that the undertaking of the negotiation of meaning leads the language user to acquire new systemic knowledge, and thus his/her competence “is a principle of both language use and language acquisition” (p. 67). That is, the language user’s competence should be understood not just as an ideal objective to achieve but as actual capability to acquire more systemic resources through exploiting current systemic knowledge.

In addition, Bruce (2008a, 2011) has drawn on the concept of discourse competence from a number of different models of communicative competence, such as those developed by Bachman (1990), Canale (1983), Canale and Swain (1980), Celce-Murcia, Dörnyei, and Thurrell (1995). Along with Celce-Murcia et al. (1995), Bruce (2008a) argues that discourse competence is the most central element of communicative competence. Particularly he proposes discourse

competence as the competence essentially required in using language to carry out academic tasks. He states:

Common to the concept of discourse competence...is the idea that it relates to the appropriate arrangement of both content information and language in order to create extended spoken and written discourse. ...[I]t is a central component of communicative competence in a language and...it involves a number of elements, often grouped under terms such as cohesion and coherence, reference, rhetorical organization, all of which relate to creating or interpreting connected, functioning, extended units of language. (p. 4)

As reviewed in Section 3.2.3, with the concept of cognitive genre (CG), Bruce suggests that using language in academic contexts involves not only systemic knowledge but also the knowledge of thought-structuring or ideas-organising rhetorical patterns. Discourse competence is thus knowledge of both areas and the ability to use them in creating and comprehending extended academic text or discourse.

Therefore, competence in a language in an academic context can be considered as being able to use rhetorical/systemic knowledge to interpret extended academic discourse, through which the user acquires extra-linguistic knowledge as well as new rhetorical and linguistic resources. It also centrally involves the ability to create “extended prose that is both accurate and appropriate” (Bruce, 2008a, p. 2), in order to communicate one’s own knowledge. After the social turn (Block, 2003), the language user’s competence, as is the case with other mental properties, tends to be understood not as “individual, intrapsychological property” but what exists within interpersonal relations and processes (Kasper & Wagner, 2011, p. 118). However, as seen thus far, the language user’s competence that Widdowson (1983) and Bruce (2008a) suggest, and this present study employs is a mental property of individual cognitive striving and processing accountable for the behaviour of *engaging with* social communications.

The overall concept of the language user’s competence in academic contexts that this section suggested will be discussed in Chapter 6, in relation to explaining the academic English competence of the participants of the study.

3.2.5 Issues in critical thinking of second language speakers of English

Critical thinking or criticality is emphasised as one of the most important qualities in developing and demonstrating knowledge through reviewing the literature (e.g., Creswell, 2012; Feak & Swales, 2009; Hart, 1998; Holbrook, 2007; Kwan, 2005; Paltridge & Starfield, 2007; Ridley, 2008). This final section of Section 3.2 briefly discusses issues relating to criticality of second language speakers of English to provide a framework for discussing the relevancy of critical thinking to SLA in English-medium academic contexts.

A number of scholars have suggested that there is no clear, commonly accepted definition of the concept of critical thinking (e.g., Atkinson, 1997; R. H. Johnson, 1992; Jones, 2005; Moore, 2011; Ridley, 2008; Tian & Low, 2011). For example, Ridley (2008) notes, in undertaking the LR, “it is not always straightforward to articulate what is meant by ‘being critical’” (p. 117). Nevertheless, there are certainly overlapping ideas about critical thinking; such as, it is accountable for making evaluative, rational judgements of things, states of affairs or arguments, and attaching values to them (Davidson, 1998).

Controversy over whether or not second language users find critical thinking to be difficult was initiated by Atkinson (1997), who argues for the position of critical thinking as culture-specific practice. Underpinned by the Vygotskian cultural/linguistic relativism (see Section 2.2.3 for a review of this particular epistemology), he suggests that criticality is a non-overt virtue and practice, which is embedded in the English language of individualistic Western middle-class culture. In this line of thinking, he argues that non-Western second language speakers of English tend to have difficulty, not just in expressing critical thinking, but also in thinking critically itself. He then proposes that this group of second speakers of English thus need to learn critical thinking as apprentices of English teachers (probably Westerners, considering his overall argument in the article). This notion of Atkinson that critical thinking is challenging for some second language speakers of English seems to be accepted by some scholars in applied linguistics (e.g., Paltridge & Starfield, 2007).

However, the claim that second language speakers of English are not so critical due to their cultural backgrounds can be challenged in the light of some notions

concerning critical thinking. Firstly, the assumption that critical thinking is the preserve of Western culture has been questioned. For example, Davidson (1998) and Tian and Low (2011) point out that there is no clear evidence that criticality is a product of the individualism of Western culture while being incompatible with collectivism. Interestingly enough, the way that Japanese mothers discipline their children, which Atkinson (1997, p 80) illustrates to show that criticality is discouraged in collective Japanese culture, seems to rather indicate that these mothers *critically evaluate* their children's behaviour based on their collectivist value. In addition, Paton (2005) and Kumaravadivelu (2003) point out that in the history of other cultures, such as China and India, patterns of scientific and philosophical thinking are found which are considerably similar to those of critical thinking. Thus, they suggest that criticality may be not just an asset of the Western mind but also that of any cultures. Such a suggestion echoes in Benesch (1999), Davidson (1998) and Gieve (1998), particularly Benesch's argument that critical thinking "is a powerful tool for dissent across cultures and classes" (p. 576). Moreover, from their research studies or teaching experiences, Jones (2005), Paton (2005) and Kumaravadivelu (2003) found that when subject content knowledge is limited, not only English second language speaking students but equally first language speaking ones were not successfully critical. Then they concluded that contextual rather than cultural elements more crucially influence critical thinking ability of L2 speakers (as well as L1 speakers) of English.

The issues relating to the criticality of second language speakers of English will be examined against the findings of the study (Chapter 5, Section 5.2.3), which I will draw on for discussing the relation between SLA and critical thinking in English medium academic contexts (Chapter 6).

Summary and implications of Section 3.2

Section 3.2 sought to establish theoretical bases for investigating the SLA of the participants of the present study. Section 3.2.1 defined the undertaking of the LR as gaining textual experiences, through which the researcher develops his/her academic knowledge and language required to undertake his/her research project. Then Section 3.2.2 reviewed Widdowson's (1983, 1990) concept of language learning through the negotiation of meaning encoded in text as a framework for

understanding SLA occurring while comprehending academic texts. The following Section 3.2.3 reviewed Bruce's (2008 a & b, 2011) theory of genre knowledge that informs the areas of knowledge and their operations involved in language learning and use in English medium academic contexts. The review was intended to establish a framework for identifying the types of knowledge one may develop through the process of acquiring academic English and understanding SLA occurring while composing academic texts. Lastly, Sections 3.2.4 and 3.2.5 reviewed the literature relevant to discuss the language user's competence and the relation between critical thinking and SLA in the same contexts.

3.3 Conclusion

In Chapter 3, I sought to establish the research paradigm and the theoretical bases, with which I understand data and identify critical issues while discussing the findings of the study. The central focus of this chapter has been on anticipating how the nature of the participants of the study as second language speakers and that of their SLA would be explained from the phenomenological realist perspective. Since very little SLA research seems to be underpinned by the particular philosophical orientation, the chapter sought to describe its ontology and epistemology at length. In addition, I reviewed concepts and issues related to SLA in academic contexts involving the discussions of some concerns in incorporating them into the conceptual framework of the study.

The review and discussion of this chapter will be reflected in presenting the findings in Chapter 5 to a certain extent, and then will be substantially drawn on while discussing them in Chapter 6.

4 METHODOLOGY

4.0 Overview

This chapter reports on the methodology of this study, the purpose of which is to explore the SLA of eight PhD students occurring while they were undertaking the literature review (the LR) in English as a second language during their first six-month conditional enrolment period. Section 4.1 presents the research questions. In Section 4.2, I briefly restate the phenomenological realist paradigm of this research discussed in Chapter 3 in relation to expressing the principles for my methodological choices and practices. Section 4.3 introduces *Interpretative Phenomenological Analysis* (hereafter IPA), which this study employed as the methodological framework. There I firstly describe the theoretical aspects of IPA, and discuss how I used the methodology in accordance with my research paradigm. Section 4.4 then reports the actual undertaking of the field research, including an overview of the research context and description of the data collection and analysis procedures. Finally, Section 4.5 discusses the quality of the study and then Section 4.6 concludes the chapter.

4.1 Research questions

The overall research question is:

What is the nature of the second language acquisition (SLA) of eight PhD students while undertaking the literature review (LR) in English, their second language, during the period of preparing the research proposal at a New Zealand university?

The four subsidiary questions are:

- 1. What are the central cognitive dispositions and processes that characterise the participants' approaches to developing academic knowledge while undertaking the LR?*
- 2. To what extent is the SLA of the participants understood in relation to their cognitive dispositions and processes characterised in reviewing the target literature and research planning?*

3. *To what extent is the involvement of the participants' communities facilitative of their SLA?*
4. *In what ways is the use of prototypical thought-structuring patterns important and (thus) is indicated as part of academic English competence?*

4.2 Research paradigm

I stated in Chapter 1 that this present study is based on phenomenological realism as the research paradigm. Then in Chapter 3, Section 3.1, I reviewed Husserl's clarification of the human mind, cognition and knowledge through which the realist perspective was manifested. This section articulates the realist principles that I exercised throughout the research processes including those of data collection and analysis.

The first paradigmatic principle that I have applied to my methodological approach is the ontological and epistemological relationship between the knower (the researcher) and the object of knowledge (the object of enquiry) that Husserl (1970) proposes. Specifically, I consider the object of this study – the participants' SLA experience – exists objectively and independently of me, the researcher, and thus it is not changed or transformed by my act of researching. Therefore, the findings of the study are considered as what I as the researcher *found out* or *uncovered*, rather than what the participants and I co-constructed by means of language use. Secondly, in the process of performing the research I have sought to meet the three conditions of knowledge that Husserl suggests – transcending towards the object of knowing, applying logic, and achieving intersubjectivity (see Chapter 3, Section 3.1.4). I have sought to actualise these three conditions chiefly by means of iteratively returning to the data, sufficient conceptualisation of their SLA involving theoretical knowledge and reasoning deductively, and ensuring that my understanding is checked by others, centrally by my supervisors. (The discussion of the extent to which this study has met the three conditions of knowledge is presented in Section 4.5 in terms of considering its validity and quality.) In addition, the decisions for choosing the methodology of the study and applying it in a critical way have been made with reference to both the paradigmatic principles stated above and to the nature of the research object, the nature of the SLA of the participants.

In Section 4.3 following, I review the theoretical background and principles of interpretative phenomenological analysis (hereafter IPA) and discuss how this study has used it.

4.3 Application of interpretative phenomenological analysis (IPA)

This section presents a review of IPA, and then discusses the directions and decisions made in the course of applying the methodology to the present study.

4.3.1 Overview of IPA

4.3.1.1 Philosophical and theoretical backgrounds

IPA is a qualitative methodology “concerned with the detailed examination of personal lived experience, the meaning of experience to participants and how participants make sense of that experience” (Smith, 2011b, p. 9). It was first introduced to the field of medical psychology in the middle 1990s (Smith, 1996). Since then it has quite rapidly formed its own philosophical and theoretical orientations, data collection and analysis procedures, and scheme of structuring reporting papers (Smith et al., 2009). IPA, as indicated in its name, seeks to inherit the traditions of both *phenomenology*, the study of experience, and *hermeneutics*, the study of interpretation, drawing on thinkers from the two fields, such as Husserl, Schleiermacher, Heidegger and Merleau-Ponty. The ontology and epistemology of IPA is manifested in its concept of the *double hermeneutics*. This concept refers to an overall situation in which the participants engage in their cognitive acts (experiences/understandings of the world), of which the researcher undertakes his/her own interpretative analysis (Smith, 2004). Thus, IPA is claimed to share “a broadly realist ontology” (Reid, Flowers, & Larkin, 2005, p. 21), which considers what is being researched as independent of the cognition (mind) of the researcher, and is found or uncovered by him/her.

According to Willig (2008), any methodological choices and approaches can be considered as case studies when the research object is a particular case. In this regard, IPA, by looking at particular individuals’ experiences, to some extent assumes the nature of case study. The ‘cases’ in IPA are the experiences of a single individual or a group of people who shared similar experiences (Smith et al., 2009). Specifically, an IPA study can be thus considered as a type of

psychological case study that explores individuals' mind-sets governing their behaviours, learning processes, memories and cognitive structures (Merriam, 1998, pp. 36-37) rather than that of anthropological and sociological cases studies, the focus of which is on "society and culture" and "social relations and the roles played by individuals in society" (Hood, 2009, p. 67).

IPA contrasts itself with *descriptive phenomenology* (hereafter DP) as well as the postmodernist and social constructivist (constructionist) approaches. Firstly, IPA questions the DP approach suppressing "all past knowledge (both lay or everyday knowledge as well as expert knowledge and theories) about the phenomenon under investigation", in order to understand the experience of the participant as it is (Willig, 2008, p. 55). Rather, IPA encourages the researcher to incorporate his/her theoretical knowledge in examining the participants' accounts. The researcher's knowledge sometimes allows her or him to see some deeper meanings of the experience of the participant that the participant himself/herself may not be aware of, although the knowledge used for interpretation should be relevant to the themes inductively emerging from data (Smith et al., 2009).

IPA also distinguishes itself from the postmodernist and social constructionist approaches, which appear not to incorporate sufficiently authorship and authority of the participant in accounting for his/her own experience. For example, Smith et al. state (2009):

Readers will notice that this [an IPA perspective] opens up a very different position to the interpretative stances which are offered by post-modern literary theory (where the author is typically either irrelevant or inaccessible) and by the social constructionist strand of qualitative psychology (where analysis focuses on the effects of the language used by a person, rather than on the meanings of that language for the person herself). (pp. 22-23)

That is, IPA argues against the postmodern idea that only credits the researcher's subjective interpretation while not fully acknowledging the meanings intended by the participant herself/himself or his/her actual experience. It also contends against the social constructionist consideration that the experience of the participant is constructed through language use between the participant and researcher. These two notions are in fact considerably different from the perspective of IPA that the researcher (reader) can access the experience of the

participant (the author) manifested through the participant's own accounts (texts) (Smith, 2004).

4.3.1.2 Principles of IPA

The three theoretical principles of IPA are phenomenology – valuing the participants' own perspective in researching their experiences, *idiography* – focusing on the particular, and double hermeneutics – the researcher's interpretative approaches to the participants' own accounts of their experience.

Firstly, following Husserl's phenomenology, IPA values the participants' own perspectives on their experiences. It aims to examine carefully personal experience “from the point of view of those who experience them” (Willig, 2008, p. 66). Experience is always experience of something. IPA looks at this as experience “of particular moment or significance to the person”, which is the totality and unity of meaning- and sense-making cognitive acts (Smith et al., 2009, p. 33). That is, as a phenomenological approach, IPA is concerned with how the person binds and integrates discrete elements of perceptions, memories, judgements, assumptions, and beliefs of something into one unified, meaningful experience (Husserl, 1970). The IPA researcher does not treat individuals as isolated beings, considering that they are situated in particular social, cultural circumstances. However, IPA does not seek to identify social, cultural factors that influence the experience of the participant, but to understand how individual participant respond to these social cultural factors (Smith et al., 2009).

As regards the second point, focusing on the particular, IPA is essentially committed to examine closely the unique, particular experience of each individual participant, from which themes that respond to the research question(s) emerge. In order to achieve this, it stresses the importance of careful, close, line-by-line examinations of data and considerably detailed and elaborated reports that uncover the subtlety and nuances of different single cases (Eatough & Smith, 2008). It therefore contrasts with the practice of *nomothetics*, the outcome of which consists of numbers and statistics that do not allow one to trace back to the personal, unique experiences of the original informants of data (Smith et al., 2009).

The emphasis of IPA on the uniqueness of the experience of each individual participant is not to dismiss the universality realised in such unique, individual experience (Smith et al., 2009). Rather IPA takes the insight of Warnock (1987) that the universal human nature can be understood rightly through a meticulous examination of individual cases. Similarly, it also draws on the notion of Schleiermacher (1998) “that everyone carries a minimum of everyone else within himself” (pp. 92-93), and proposes that “the insightful case study may take us into the universal because it touches on what it is to be human at its most essential” (Smith et al., 2009, p. 38). This IPA notion of the universality in particularity is the basis for justifying the identification of communal themes and patterns across different participants (Eatough & Smith, 2008). In addition, it also gives rise to suggesting the possibility of applying the implication of a research study to wider populations (Smith, 2004). However, IPA cautions the danger of hasty, careless claims of the generalizability of a case study without considering specific social, cultural contexts (Smith & Osborn, 2003).

Thirdly, it was mentioned previously in this section that IPA is in the line of the interpretative (i.e., hermeneutic) tradition rather than the descriptive one within phenomenology (Smith et al, 2009). This is implied in the concept of double hermeneutics that indicates that the IPA researcher eventually achieves his/her knowledge or understanding *of* the experience of the participants accounted for from their own first person perspective. The two tenets of interpretation that IPA suggests are as follows.

First, it is acknowledged that data analysis is, by nature, an interpretive process into which the researcher reflects his/her own theoretical knowledge and life experiences as the analytic framework (Smith, 2004). However, IPA argues against using the conceptual framework in a deductive manner to classify data into pre-identified themes or categories (Smith et al, 2009). The researcher should not allow her “fore-conception to be presented to [him/her] by fancies and popular conceptions, but rather to make the scientific theme secure by working out the fore-structure in terms of the things themselves” (Heidegger, 1962, p. 195). Thus, the researcher engages with data inductively, seeking to understand the meanings of the accounts, but the understood meanings involve the researcher’s theoretical and experiential knowledge (Smith, 2007). This essentially requires the researcher

to undertake the *hermeneutic turn* between theories and data iteratively as the process of data analysis (Smith et al, 2009). Such an inductive as well as interpretative approach to data leads the researcher's knowledge to be reshaped by the data, possibly arriving at a new "theoretical formulation and hypothesis" (Willig, 2008, p. 75).

Secondly, IPA seeks to consider the intentions of the participants when analysing their accounts. In this regard, it diverges from Gadamer, one of the phenomenologists that IPA centrally draws on (Smith et al., 2009). In particular, IPA is opposed to the idea that "when reading a text we are not concerned with the intention of the author" (Smith, 2007, p. 4). According to Smith et al. (2009), Gadamer is concerned with text that was written "in a previous historical age", but "[t]he texts examined by IPA researchers are usually contemporary", and thus through the analysis the researchers can, and should understand the intention of "the person providing the account" (p. 37). Meanwhile, since the IPA researchers are also informed by theoretical knowledge, it is possible for them to have "an understanding of the utterer [participant] better than he understands himself" (Schleiermacher, 1998, p. 266).

4.3.2 Interviewing method and data analysis in IPA

In general, "the interview is often seen as a core method in qualitative research, where the focus is on the nature of experience" (Richards, 2009a, p. 183). Since IPA attends to the particular experience of the participants from their own perspective, the data of an IPA study are collected centrally through interviewing each individual participant (Larkin, Watts, & Clifton, 2006).

The principles with which an IPA researcher would carry out an interview are exhibited in the concept of double hermeneutics. The participant is considered as the expert knower of his/her own experience, thus the researcher accesses and finds out the experience of the participant as he/she accounts for it (Smith et al., 2009). That is, IPA considers the actual experience of the participant, which is expressed by the participant in language and thus is known to the researcher. This IPA principle of interviewing is distinguished from the social constructivist notion in using interviewing method, which claims that the findings are constructed as the products of language effect during the interview process (Eatough & Smith,

2008; Smith, 1996). Therefore, Smith et al. (2009, p. 57) state, “[T]he aim of an interview is largely to facilitate an interaction which permits participants to tell their own stories, in their own words. Thus, for the most part, the participant talks, and the interviewer listens.”

IPA uses both semi-structured and unstructured interview methods. In both cases, the language of interview questions should be adjusted into language that the participant is familiar with (Smith et al., 2009). In addition, the researcher should encourage the participant to lead the interview as long as what he/she says is relevant to the research questions. A semi-structured interview should be flexible, although the researcher prepares an *interview schedule*, “the series of questions” for the interview (Breakwell, 2006, p. 237). Thus, the researcher does not need to follow the exact sequence of the prepared questions. Some questions can be even omitted or modified, and new questions can be asked promptly when there is contextual need (Eatough & Smith, 2008). When conducting unstructured interviews, the researcher begins from some focused topics or “one single core question” and the rest of the interview depends on “how the participant answers the question”, which allows the research to explore the topic more inductively (Smith et al., 2009, p. 68). Unstructured interviews should be employed with the caution that the method would challenge the researcher when attempting to identify converging patterns across different participants during data analysis.

A potential factor that can weaken the validity of interview data is that, for several reasons, the interviewee may not tell the truth and may deliberately hold back some information that the researcher seeks (Breakwell, 2006). However, this issue is not particular only to interviewing but “tend[s] to be common to many methods (p. 247). Nevertheless, this drawback needs to be addressed, particularly in an IPA study that seeks to elicit major themes and patterns of the findings from interview data. Breakwell suggests that such a potential disadvantage of interviewing can be overcome to some extent if the researcher checks whether or not what the interviewee has said is consistent, in the sense that inconsistency could be a sign of inaccuracy. Regarding the same issue, Richards (2009a) proposes that the researcher needs to triangulate interviewing with other data collection methods. In addition, Mackey and Gass (2005) suggest interviewing the same participant multiple times to increase the credibility of interview data. Within IPA research, it

is recommended to contextualise the data collected through interviews by means of additional data sources, such as those collected through observation or the participants' personal documents (Smith et al., 2009).

Meanwhile, concerning data analysis, Smith et al. (2009) suggest the eight strategic considerations of IPA for data treatment, which are succinct, step-by-step guide lines, showing the big picture of how analysis proceeds:

- the close, line-by-line analysis of the experiential claims, concerns and understanding of each participant;
- the identification of the emergent patterns (i.e. themes) with this experiential material, emphasising both convergences and divergences, commonality and nuance, usually first for single case, and then subsequently across multiple cases;
- the development of a dialogue between the researchers, their coded data, the their [theoretical] knowledge about what it might mean for participants to have these concerns in this context, leading in turn to the development of a more interpretative account;
- the development of a structure, frame or gestalt which illustrate the relationship between themes;
- the organisation of all this material in a format which allows for analysis data to be traced through the process, from initial comments on the transcript, through initial clustering and thematic development, into the final structure of themes;
- the use of supervision, collaboration, or audit to help test and develop the coherence and plausibility of the interpretation;
- the development of a full narrative, evidenced by a detailed commentary on data extracts, which takes the reader through this interpretation, usually them-by-theme, and is often supported by some form of visual guide (a simple structure diagram or table); and,
- reflection on one's own perceptions, concepts and processes.

(pp. 79-80)

These strategic guidelines for data analysis in fact manifest the three principles of IPA reviewed in Section 4.3.1, which are researching experience from the person's own perspective, focusing on the particular and the double hermeneutics.

4.3.2 Rationale for the application of IPA to the study

This section discusses some reflections that I gathered in the process of adapting and practicing IPA for the present study.

There are several reasons that led me to choose IPA as the methodology of the present study, over the research approaches already practiced in applied linguistics, such as the ones in Duff (2008a), Heigham and Croker (2009), Hinkel (2005) and Richards (2003, 2009b). Firstly, the IPA approach to data was able to be applied in the study because it resists the principle of the social constructivist qualitative approaches in which data are “accounts of truths, facts, attitudes, beliefs, interior, mental state, etc., constructed between interviewer and interviewee” (Talmy, 2010, p. 132). Secondly, this study examines SLA in relation to the aspects of the cognitive experiences of particular individuals rather than to those of social, cultural systems or relations, and IPA was appropriate for this focus of the study. Relating to this, the IPA notion about the relationship between the universal and the particular also accords with that of this present study that a universal is *in* the particular instances of it as their essence (Moreland, 1989). Moreover, its hermeneutic principles informed me of how I could incorporate the conceptual framework of the study into interpreting the data and in discussing the findings.

Particularly, in relation to the last reason for using IPA, I may need to elaborate slightly more why I have chosen IPA instead of descriptive phenomenological (DP) approaches that claim to inherit from Husserl (e.g., Giorgi & Giorgi, 2003), whose philosophy is central to this study. It is true that Husserl proposes that knowledge is the knowledge of the object as it is, and thus, it is necessary for the researcher to return to data iteratively and seek to understand precisely the meanings intended by the participants as DP approaches propose. However, with equal emphasis, Husserl also argues that knowing (i.e., researching for the researcher) requires sufficient conceptualisation of the object of knowledge (see Chapter 3, Section 3.1.4). Willard (2011) puts it:

Certainly the mind according to Husserl is not “without categories and concepts.” Far from it. Such a vacuous mind is precisely the ‘mind’ of the ‘realism’ that he regards as ridiculous. The mind of his view, on the other hand, is evermore fully loaded with structures of intentionalities and types of acts as his career progresses (para 21)

Thus, I consider that the way that IPA encourages the researcher to use his/her theoretical knowledge for interpreting data is closer to Husserl’s epistemology than DP approaches that require the researcher to suppress his/her previous knowledge when analysing data.

However, there is a divergence in the epistemologies of IPA and this study, which has led the application of IPA to the study to be cautious and selective. As reviewed in Section 4.3.1, IPA broadly employs a realist ontology (Reid et al., 2005, p. 21), acknowledging that the ontological independency of the research object from the researcher and the universality in the particular, to a certain extent. However, aligning with Heidegger and Gadamer, IPA proposes the epistemological subjectivity of the experience of the participants and the interpretation of the researcher. That is, while not completely dismissing the universality in individual experiences, it stresses the subjective, particular nature of the participants’ and the researcher’s meaning- and sense-makings (Smith, 2004). By contrast, based on Husserlian realist epistemology, this study considers that both the participants and researcher have the potential to achieve objectivity (and thus universality and generalizability) in their knowledge and experiences despite the subjectivity of their cognitive processes, when the three conditions of knowledge are met (see Chapter 3, Section 3.1.4 for a review of the three conditions).

Moreover, in applying the data collection and analysis strategies and procedures that IPA suggests, I have sought to maintain flexibility when appropriating them to the context and nature of the study. For example, I have realised that the accounts of the participant this study are not sufficient for investigating certain aspects of the nature of their SLA. Thus, while still using the interview data as the main source from which I elicit important themes and patterns that address the research questions, I did not treat other data sources as merely supplementary

ones that support interview data, but I also derive important findings from them, particularly from the LR drafts of the participants.

The actual exercise and operation of IPA will be reported in following Section 4.4.

4.4 Research procedures

This section reports the actual undertaking of the field research of this study.

Section 4.4.1 describes the research background, participants and researcher of the study. Then Sections 4.4.2 and 4.4.3 present the procedures of the data collection and analysis respectively.

4.4.1 The research background, participants and researcher

4.4.1.1 The research background

Since 2006, the New Zealand Government has had a policy of encouraging international doctoral students to enrol in NZ universities. As a result of this policy, the number of international PhD students (most of whom are second language speakers of English) reached 1,839 in 2008, which represents a six-fold increase from 310 in 2001 (Gerritsen, 2010). This recent surge in the number of international PhD students has also been apparent at the university, where I collected data from my participants from March in 2011 to January in 2013.

At the university, overseas applicants are advised to correspond with potential chief supervisors via email for a considerable time, from several weeks to even more than one year before commencing their PhDs. During this time, these applicants negotiate their potential topics with their potential supervisors, working on their initial research proposals. Once an applicant has been accepted and the staff have agreed to offer supervision, a supervision panel consisting of a chief supervisor and one or two co-supervisors is organised, and he/she is required to go through a formal application process, which has to be approved by the Postgraduate Studies Committee. This is the official procedure at the university, through which an applicant becomes a PhD candidate. However, at one of three faculties where my participants are from, applicants are required to contact the faculty first and after they are accepted, the faculty organises their supervision panels. Thus, in this faculty, PhD candidates have not had personal interactions with their supervisors until they arrive at the university, although they also have to

submit their initial proposals as do other PhD candidates from different faculties. This series of steps of admitting a PhD candidate has the function of verifying if he/she is qualified enough to do a PhD, and especially in the case of an international PhD student, if his/her English is at a level to be able to undertake a PhD in English. All of the participants of the study have been through this process, presenting their academic competence sufficient to commence PhD research in an English-medium academic context.

Regardless of whether they are domestic or international, the university requires all new fulltime PhD students to complete their full research proposal within the first six-months (extendable up to one year) of the *conditional enrolment period*. A candidate is confirmed for a full enrolment after the Postgraduate Studies Committee of the university has approved the full research plan, to which the supervisors' recommendation report for confirmation and evidence of ethical approval were attached. The context of a conditional enrolment period during which a new PhD student has to complete their research plan in fact gives the student a clear idea of what to strive for, operating as a 'necessary pressure' that makes her work hard. However, for international candidates who also go through culture shock in a new environment and may already feel somewhat unstable, the status of being a 'conditional' student with the quite daunting task of completing their research plan is both difficult and stressful. Some of my participants even have told me that they were suffering from some emotional difficulties or not sleeping well during their conditional enrolment period.

There is no strictly prescribed format for a full research plan and specific requirements for the proposal depend on the regulations of different faculties. However, the university suggests the headings of the sections that PhD students are required to include in their research plan. They are:

1. A working title for the thesis
2. A statement of the research topic/problem
3. An outline of the significance of the topic (for example, its importance for advancing knowledge in the field, discipline or region and/or implications for methodology or understanding)
4. A review of the literature
5. A statement of research questions or hypotheses
6. The methodologies by which the questions or hypotheses will be investigated

7. The forms of analysis proposed
8. A thesis outline
9. The resource requirements including the impact of timing of resource availability
10. A timetable for the total project and thesis writing
11. Ethical approval from the appropriate committee

The Postgraduate Studies Committee also provides the criteria that PhD students are expected to meet by the end of the six-month up to one year conditional enrolment period. They are:

- Technical skills
- Conceptual or theoretical knowledge of field of study
- Ability to evaluate literature critically
- Ability to design appropriate methods of investigation
- Ability to develop and present coherent arguments
- Ability to focus on the research topic

(Student & Academic Services Division, 2010)

In the proposal guidelines, Section 4 requires a literature review, but most of other sections also need to be underpinned by the knowledge of the target literature. One of the criteria that PhD students are required to demonstrate in their full research proposal is technical skills. The university does not specify what these are. However, it appears that these skills relate to academic work with which PhD candidates display and communicate the necessary disciplinary and rhetorical knowledge described within the other criteria. The enrolment period can be roughly divided into three stages, although the time allocated to each stage seems to vary from student to student. The first stage is for engaging in extensive reading of the literature. The students then move on to the second stage during which they write a review of literature. Finally, based on what they have done at the first and second stages, they complete their full research proposal and ethical application. Therefore, carrying out the LR in this context of the provisional enrolment period seems to relate to all of what a candidate does in developing the types of knowledge and skill required to complete the full research plan.

4.4.1.2 The participants

The participants of the study were new, conditionally enrolled international PhD candidates at the university by the time I was collecting data from them. They were from three different faculties of the university: the Faculty of Arts and Social Sciences, the Faculty of Education and the Management School. Among eight participants, seven were female and one was male. One was from China, three from The Maldives, two from Sri Lanka, and two from Vietnam. Their PhD commencing dates were different, so I began my data collection in March, 2011 and ended it in January, 2013.

Among the eight participants, four were core participants from whom I collected interview data from their first or second month to the last month of their conditional enrolment. I made idiographic (individual) analyses of the interview data from these four participants prior to identifying intersubjective themes and patterns. The superordinate and subordinate themes for the research topic –their SLA occurring while undertaking the LR – primarily emerged from the data collected from them.

The other four were peripheral participants from whom I collected data for two to four months of the conditional enrolment. At first, I used their data to strengthen, enrich, modify, change, or discard the superordinate and subordinate themes intersubjectively emerged from the data of the four core participants. However, as the data analysis progressed, I realised that the distinction between the core and peripheral participants was not so significant in reporting the findings. This is because I found that the data extracts that were from the both core and peripheral participants supported my interpretation in an equal manner (see Section 4.4.3 for the data analysis process).

When I commenced data collection, all of the participants were already advanced users of the language. They either had achieved scores higher than overall 6.5 for the IELTS test which is the minimum level to be able to undertake postgraduate studies, or, had been exempted from the test because they had earned their bachelor's, master's or postgraduate degrees from the UK or Australia. They also proved their academic writing skills by means of their initial proposals and email correspondence with their supervisors, academic staff members in their faculties.

The degree of competence in using English for spoken interactions varied among the participants, and some of them expressed difficulties in communicating with their supervisors at the early stage of their conditional enrolment period. Some of the participants had published articles in English, and most of them had experience in presenting their papers at conferences in English.

In relation to their professional backgrounds, none came straight from their master's programme to doctoral study. All of them were in their 30s or 40s, and they had established their professional careers in their own areas. Six of them were university teachers before starting their PhD projects, and two had worked in industry. Because of the time gap between their master's and PhD, sometimes they struggled to deal with academic work, especially with the overwhelming amount of reading. Nevertheless, most of time, they appreciated their professional experiences, from which they had found their research topics that they were genuinely interested in.

Tables 4.1 and 4.2 present the biographical information and data collection period of the core participants and peripheral participants. I use a pseudonym for each participant. Then Table 4.3 presents the previous positions of the participants that they used to work for before commencing their fulltime PhDs, and their preliminary research topics.

Table 4.1: The bibliographic information and data collection period of the four core participants

Name	Nationality	Gender	Former Profession	First Month of PhD	Data Collection Period
Shu	China	female	university teacher	August, 2011	6 months
Nada	Maldives	female	government officer	April, 2011	5 months
Padma	Sri Lanka	female	university teacher	March, 2011	5 months*
Hai	Vietnam	female	university teacher	March, 2011	6 months

*Hai and Padma provided most of data including interview data for five to six months from the date on which I commenced data collection from then. Then in Oct 2012, I collected additional data from them through email correspondence.

Table 4.2: The bibliographic information and data collection period of the four peripheral participants

Name	Nationality	Gender	Former Profession	First Month of PhD	Data Collection Period
Fadila	Maldives	female	teacher trainer	December, 2010	3 months
Mubin	Maldives	male	director at a firm	January, 2011	4 months
Kusum	Sri Lanka	female	university teacher	June, 2011	5 months*
Tram	Vietnam	female	university teacher	July, 2011	3 months**

*In the case of Kusum, although the data have collected for 5 months, but the data collected from her were not enough to be a core participant

**Tram provided most of data including interview data for three months from the date on which I commenced data collection from her. Then in January 2013, she additionally sent me her final research proposal.

Table 4.3: The comparison between the participants' professions and preliminary research topics

Names	Former Professions	Preliminary PhD Thesis Research Topics
Hai	university teacher of English	Self-efficacy in teaching: The case of EFL teachers at a university in Vietnam
Padma	university teacher in the management of technology	Network collaboration and the role of leadership
Nada	government officer in the health sector	Well-being and social connectedness of older people in the small island developing state of Maldives
Shu	university teacher of English	Teachers' understanding and practice in fostering student autonomy and cooperation: A case study in a Chinese secondary school
Mubin	head of the Maldives Customs Service	Adaptive optimal supply chain network modelling
Fadila	teacher trainer	Understanding lecturers' perceptions and practices related to integrating ICT within their teacher education programmes: A case study in the Faculty of Education, Maldives
Kusum	university teacher of English	An activity theory analysis of mediational engagement with e-learning activities in tertiary level education in New Zealand
Tram	university teacher of English	The factors of emotions affecting Vietnamese learners' English oral communications

(Sources: the participants' CVs and full research proposals)

4.4.1.3 The researcher

“[T]he production of knowledge cannot be understood apart from the personal histories of the researchers” (Norton Peirce, 1995b, p. 570). The need for this section is based on the particular meanings that this general statement has, in relation to this study. I am from South Korea. I completed my MA at TESOL in 2010 in my country, and commenced my PhD in July of the same year. I went through the first six months of my conditional enrolment period, which is the time when my research topic – the SLA of international PhD students that they would experience while undertaking the LR as my research topic – emerged from my personal experience.

By the time I began my data collection, I was in my ninth month of doctoral study, and started to work with my participants one-by-one around during the six months of their conditional enrolment period. The study context of my participants was

familiar to me as I had just experienced the same challenges. In addition to this, as a peer, I was able to spend a considerable time with my participants beside formal data collection, such as interviews. My status of being the researcher and a peer of my participants created mostly positive outcomes, enriching and deepening my understanding about the research topic, participants, and data that they were providing. However, I was also aware of the possibility that my own experience of undertaking the LR might have become a too strong preconception about what I was looking at, and sometimes might have prevented me from perceiving my participants' own experiences.

As for the notion of the researcher as an insider versus outsider (Richards, 2003), I considered myself as both an insider and outsider, depending on which criteria I applied. When externally identifying my participants' status and situations in relation to undertaking the LR for the research proposal of a PhD project, I was definitely one of the insiders of this group of people. As Husserl (1970) and Schleiermacher (1998) note, intersubjective understanding grows out of having empathy toward others, and the first and foremost condition that people can have empathy to each other is that they live in and perceive the same world. Considering that intersubjectively knowing and understanding is the key tenet of this study, my position as an 'externally conditioned' insider is definitely a vantage point. However, I acknowledge that, from the viewpoint that the experience of a particular person is the person's own and cannot be completely shared or understood by others, I am inevitably an outsider of the realm of each individual participant's own experience.

4.4.2 Data collection

Case studies in general employ multiple data collection methods, and triangulate them to gain more holistic, balanced understanding (Merriam, 1998; Willig, 2008). On the other hand, an IPA case study is based on the notion that the best way to access to the participants' experiences is to "invite participants to offer a rich, detailed, first-person account of their experiences" (Smith et al., 2009, p. 56). This study, as an IPA case study, involved monthly interviews with each participant as the primary data source to obtain the participants' own accounts of their SLA. Simultaneously, other sources, such as their research proposal drafts (including

the LR texts) or summaries of supervision meetings were collected to triangulate the findings. Prior to reporting the data collection in specific terms, I describe the overall procedure of data collection.

4.4.2.1 Data collection procedure

My full research plan was approved by the university in December 2010. Two months later, in early February 2011, I began to recruit participants. I spent the two months between the date of enrolment confirmation and of the commencement of data collection refining my research design. In addition, prior to the interviewing of the actual participants, I conducted a pilot study with six international PhD students. Two of them were still in their conditional enrolment period, and the rest were in their second or third year of their PhDs. The pilot study provided some useful insights, particularly for evaluating my interview techniques and attitude as an interviewer (Richards, 2003). For example, while talking with these PhD students, I began to see that the purpose and function of the undertaking the LR for preparing a research proposal would be somewhat different from those of the LR chapter(s) in an actual doctoral thesis. In addition, I learned that, to listen to interviewees, I should minimise interruption as much as possible. This experience of piloting interviews, overall, allowed me to feel more confident and get ready for actual interviews.

The first step of the data collection was to specify carefully the boundaries within which I was able to recruit participants. I followed three critical when recruiting participants:

- the disciplinary field to which a potential participant belong should not be too different from my own subject field;
- the topic of a potential participant should not be beyond my understanding; and,
- a potential participant should be in the first or second month of his/her conditional enrolment.

The reason for the first two considerations was to design manageable research. I decided on the third condition with regard to my core participants. The number of participants that I was going to recruit was still flexible between three, which is

the default size recommended by Smith et al. (2009) for a single researcher, and six core participants, and the same range of peripheral ones, but I planned to have no more than nine in total.

In recruiting participants, most help and support came from other PhD students. One of my departmental peers introduced a new student from his home country, and she became my first participant. Then through her, I was able to meet two more participants. Another colleague suggested emailing the entire population of PhD students in the university through the Postgraduate Students' Union mailing list, and through this I met a peripheral participant. This person introduced me two more participants. Later, through another colleague, I came to know one more new student and she agreed to be a peripheral participant. The last participant was introduced by one of my supervisors in July, 2011. Finally I had four core and four peripheral participants and I stopped recruiting any more participants. The participants had commenced their PhDs at different times, so the data collection period for each participant was different. The first month of interview data collection was March, 2011 and the last month was January, 2012; the total period for interviewing individual participants was eleven months. However, as I mentioned early in Section 4.4.1, some participants offered me additional data afterwards, thus the actual data collection was terminated in January 2013.

With the eight participants, I followed the formal procedure that was approved by the Ethics Committee. An initial person-to-person contact to potential participants was made via email and face-to-face meeting, during which I described the research project and invited them to participate in the research. Regardless of contact methods, a letter of information and a consent form (Appendices B, C & D) explaining the nature of their involvement and seeking for the participation was given to those who were contacted to help them to understand thoroughly the purpose of the research and the ways of participation. Following this, a face-to-face meeting was arranged to go through the consent letter orally, and to address any questions or comments that potential participants may have. After they agreed with the specifications in the consent letter and signed two copies, one for themselves and one for me to keep, I arranged the first interview.

Each participant was usually interviewed at monthly intervals from time that they decided to participate, no matter whether they were core or peripheral participants. However, sometimes I had to miss a monthly interview when certain participants were preoccupied with their own work. The first and last interviews were semi-structured (see Appendices E & F for the first and last interview schedules) and took between 30 minutes and one hour, and the rest of the interviews between the first and last were unstructured and took between 20 minutes and 40 minutes. Each interview date was negotiated via email and all the interviews were audio-recorded. The audio-recorded interview data were immediately imported into my NVivo 9 research project and I tried to transcribe and add some pre-analysis thought before the next interview. I was able to manage this pattern at the early stage of data collection, but as the amount of interview data increased when I had more participants, the workload sometimes did not allow me to follow this data management method. A summary of the first interview was sent to each participant. I was going to make summaries for the following interviews too, but again, due to workload I could not continue this plan.

Throughout the conduct of the monthly interviews, I collected the documents and more personal, verbal accounts as data that my participants agreed to provide. The first two documents given by each participant were their CVs and initial proposals that they had made before they came to New Zealand. I had originally intended to collect them before the first interview, but in the event I requested them after the first interview. I thought that I needed to establish rapport with my participants (Richards, 2003) before requesting personal documents although they had previously agreed to provide their documents before the first interview. Subsequently, I collected other documents relevant to interview data, and at the end of data collection, each participant provided me with the final draft of their full plan including the literature review text. Usually, these documents were sent to me in an electronic form, then I imported them to my NVivo project. When the documents were a paper version, I scanned and made them into PDF files and again stored them in the NVivo project, returning the original ones to the participants.

4.4.2.2 Monthly interviews with each participant

In the present study, the participants' own first person understandings of their experiences constitutes the first layer of the double hermeneutics, central to which were the interview data. Interviewing individual participants multiple times over a period provided me with rich data and sufficient opportunities to probe and elaborate on findings to a certain extent, particularly when these findings emerged during a data collection period. These multiple interviews with the same participants also helped me to enhance the reliability of data (the participants' accounts) (Mackey & Gass, 2005).

With the four core participants whom I have worked with from the first or second month to the last month of their conditional enrolment period, I conducted four to seven interviews usually one month apart. Meanwhile, I interviewed the four peripheral participants from two to four times. As mentioned previously, the first and last interviews were semi-structured and the questions of these two interviews were asked to each individual participant (see Appendices E & F for the schedules of the first and last interviews) and the rest of interviews between the first and last were unstructured. These unstructured interviews were conducted with the intention to uncover inductively the occurrence of the SLA of the participants while undertaking the LR from their accounts of how they were carrying out the task. They also allowed me to clarify some of their answers that they gave at the previous interviews. In addition, when interesting issues emerged while interviewing one participant, I was able to discuss these issues with the other participants through such unstructured interviews.

The interview dates, times, and places were decided by the participants. Interview places and times always changed. I met my participants, at their homes, offices, or outdoor benches in the university campus. I tried to interview them when they were not busy, and the most preferred times by my participants were before or after lunchtime and late evening when they relaxed at home. Interviewing them where they worked and kept their study materials was convenient because I was able to collect supplementary data during or right after interviewing. Although I tried to keep the intervals between the interviews with each participant regular, because of my participants' busy schedules I had to be flexible with interview

intervals. Tables 4.4 and 4.5 present the dates of the interviews I had with the four core participants and four peripheral participants respectively.

Table 4.4: Interviews with the four core participants

Interviews	Shu	Padma	Nada	Hai
1st	Aug 15, 2011	Mar 21, 2011	May 12, 2011	Mar 13, 2011
2 nd	Sep 20	Apr 19	Jun 10	Apr 20
3rd	Nov 12	May 13	Jul 7	Apr 28
4 th	Dec 16	June 8	Sep 7	May 22
5 th	Jan 11, 2012	July 6		June 6
6 th		Aug 10		July 2
				Sep 18

Table 4.5: Interviews with the four core participants

Interviews	Fadila	Mubin	Kusum	Tram
1st	Apr 13, 2011	Apr 12, 2011	Jun 16, 2011	Aug 21, 2011
2 nd	Apr 28	Jul 5	Aug 13	Sep 15
3rd	May 26		Sep 20	Oct 26
4 th	Jun 7		Nov 30	

The majority of difficulties that I struggled with throughout interviewing seemed to arise from the fact that both the participants and I were from different cultural backgrounds. For instance, in most of the first interviews, my participants and I experienced communication difficulty to some extent, because we were not used to each other's accent or speech style yet. I could not get used to a particular participant's accent and I always had to ask her to repeat what she had just said, which might have embarrassed her and negatively affected the conversation that we were having. Besides the issue of cultural diversity, I had to struggle with some other dilemmas in relation to interviewing. For example, one of the participants became reserved and shy when we started a formal interview although in our informal conversations she talked more and provided me with very useful insight and information. Nevertheless, overall, by meeting multiple times over

several months, I came to understand each participant more and more. The participants and I observed that we were becoming able to communicate with each other better and better, which contributed to strengthen the intersubjectivity between the participants and me about the issues that we discussed. This is further discussed in Section 4.5.

4.4.2.3 Collecting documents and additional verbal accounts

The purpose of collecting additional data was initially to contextualise and triangulate the findings emerged from interview materials (Richards, 2009a). In addition to this, the LR sections in the final research proposals of five participants, Hai, Nada, Mubin, Tram and Fadila were used as the main data for identifying the importance of some extra-linguistic elements of academic competence, which did not emerge from the interview data.

My initial plan was to collect only the participants' CVs, initial proposals, one or two different versions of full proposals to which the literature review texts were attached, but I came to collect a variety of documents besides the initially planned ones. For example, I participated in a workshop session about doing the literature review with some of my participants, and then collected their notes that they made during the session. The participants also gave me different kinds of document and materials that they produced in order to help themselves to better understand and summarise what they were reading, synthesise different concepts or theories into conceptual models, and share their understandings with their supervisors. I also asked them to provide me with the summaries of their supervision meetings related to doing the literature review and most of them gave them to me.

In addition, I recorded some informal conversations, between some of the participants and me, or between them. Opportunities for such additional conversation data mainly arose through attending different sessions and meetings for PhD students held by the university. For example, five participants and I went to a meeting organised for doctoral students every Friday morning. My department (Applied Linguistics) also held a research meeting every other Friday afternoon. The personal accounts of the participant in recorded conversations were eventually classified with other interview data and treated as interview data.

Tables 5 and 6 present the supplementary materials provided by the core and peripheral participants respectively.

Table 4.6: Supplementary data from the four core participants

Shu	<ul style="list-style-type: none"> - Supervision meeting summaries (Jul 12 & 19, Aug 11, Sep 1, Oct 21 in 2011) - CV (Jul 18, 2011) - Initial proposal (Jan 12, 2012) - Final proposal including the literature review section (Jan 12, 2012) - The literature review framework (Aug 31, 2011) - Annotated reading (Sep 1, 2011) - A reflecting conversation after a session (Sep 2, 2011) - A note during a session (Oct 7, 2011) - Sample of manual note while reading (Jan 16, 2012)
Padma	<ul style="list-style-type: none"> - Supervision meeting summaries (Jan 27, Feb 24, Apr 8 in 2011) - CV (May 13, 2011) - Initial proposal (May 13, 2011) - Final proposal including the literature review section (Sep 1, 2011) - Reference table (Apr 20, 2011) - Action plan (May 13, 2011) - Two pages of a literature review draft (May 13) - Network dynamics (May 13, 2011) - Concept map (May 13, 2011) - Network paradigm (Jul 6, 2011) - A literature review draft (July 8, 2011) - A picture to explain the conceptual framework (Jul 8, 2011) - An email correspondence (Oct 30, 2012)
Nada	<ul style="list-style-type: none"> - Supervision meeting summaries (Apr 11, 20 & 28, May 2, 11, 18 & 24 in 2011) - CV (Jul 7, 2011) - Initial proposal (Jul 7, 2011) - Final proposal including the literature review section (Sep 26, 2011) - A map of the research site (Aug 18, 2011) - A draft of the research proposal (Aug 18, 2011)
Hai	<ul style="list-style-type: none"> - Supervision meeting summaries (Mar 1 & 24, May 5 in 2011) - A draft of research proposal (Apr 20, 2011) - Concept maps (Apr 15, 2011) - A draft of the literature review (July 2, 2011) - CV (May 14, 2011) - Initial proposal (May 14, 2011) - A reflecting conversation after a session (Sep 2, 2011) - A literature review just before the full proposal completion (Oct 24, 2011) - Final proposal including the literature review section (Nov 30, 2011) - An email correspondence (Oct 30, 2012)

Table 4.7: Supplementary data from the four peripheral participants

Fadila	<ul style="list-style-type: none"> - Supervision meeting summaries (Four times in 2011, dates unknown) - Final proposal including the literature review section (June 30, 2011) - A draft of the literature review with her peer feedback (June 30, 2011) - A draft of the final proposal (May 16, 2011) - Audio-record of an informal chat with Tram (Aug 21, 2011)
Mubin	<ul style="list-style-type: none"> - CV (May 14, 2011) - Initial proposal (May 14, 2011) - A draft of the literature review (May 14, 2011) - A draft of the literature review (Aug 18, 2011) - Final proposal including the literature review section (Aug 18, 2011)
Kusum	<ul style="list-style-type: none"> - Supervision meeting summary (July 18, 2011) - A draft of full research proposal including the literature review (date unknown)
Tram	<ul style="list-style-type: none"> - Supervision meeting summaries (Jul 6, Aug 24, Sep 7, 12 & 14) - Audio-record of an informal chat with Fadila (Aug 21, 2011) - A copy of the initial proposal (Aug 27, 2011) - A reflecting conversation after a session (Sep 2, 2011) - Final proposal including the literature review section (Jan 20, 2013)

4.4.3 Data analysis

This section reports the data analysis of the study. Here, I first briefly describe my experience with NVivo 9, a qualitative data management software tool, and then illustrate the data analysis procedures that were adapted.

4.4.3.1 Experience with NVivo 9

From the beginning of the data collection, I used NVivo 9, and created an NVivo project in which I stored all the data. NVivo helped me with managing and organising data at the early stage of data analysis. Firstly, I created a folder for each participant and kept all the data from one participant in that folder. Interview audio-records were imported and transcribed in the project, and each interview audio-recording and its transcribed text were kept in one file. Electronic documents that were sent via email were also imported into the project. In addition, paper documents were scanned and converted into PDF files and they too were imported into the project. By the time I had around 80 per cent of data, I started to engage in the coding process. I created subordinate theme files when themes emerged, and later superordinate theme files by grouping and organising subordinate themes. With NVivo, data manipulation, such as discarding, modifying, merging, or reorganising themes, was relatively easy, which helped me to search freely for themes. With NVivo 9 it was convenient to access data that were kept in holistic and original forms. It also allowed me to trace back to any stage of theme development process, any of my comments and notes left

intact with original sources.

However, I encountered serious issues that eventually led me to stop using the software. That is, the NVivo project did not allow the table format that Smith et al. (2009, pp. 93-95) suggest for theme development. I had to create my theme tables using Microsoft Word, then import them into my NVivo project. Later when I tried to identify convergences and divergences of the themes emerging from each of the four core participants, I realised that my knowledge of the software was not sufficient to undertake the task. After considering for some time whether or not further learning about how to use it would help, I decided not to use it for the purpose of data analysis but only for data storage, which was still important.

4.4.3.2 The procedure of the analysis of the interview and supplementary document data

As stated in Section 4.3.1, IPA encourages the researcher to utilise his/her theoretical knowledge in analysing data, while having to make the analysis inductive. This was centrally exercised in the present study through a hermeneutic turn between my own theoretical knowledge (conceptual framework) and the data.

As I collected data from different participants at different times, this incremental approach allowed time to pre-analyse data before the later actual analysis. During this stage, I made notes and comments while transcribing interview data, and arranged supplementary documents data to be linked to the relevant interview data. After the pre-analysis period, I moved on to actual data analysis for which I tried to appropriate the six steps of data analysis suggested by Smith et al. (2009), which are:

1. reading and re-reading
2. initial noting
3. developing emergent themes
4. searching for connections across emergent themes
5. moving to the next case
6. looking for patterns across cases (pp. 82-107).

These steps guided my approach to the data analysis. At the beginning, the focus of the data analysis (and thus steps) was on the four core participants' transcribed

interview data and documentary data that I collected to contextualise the interview data. I started from Hai's case and moved onto Padma, Nada and Shu in turn. When working on the data from Hai, wishing to be rigorous, I was carefully checking these steps all the time, not to miss any step. As the analysis proceeded and moved onto the other participants one by one, I was able to go through the steps more smoothly. Although these steps were initiated one after another, they needed to be engaged with continually and concomitantly throughout the data analysis process. In addition, the whole analysis process also involved my supervisors' constant feedback and guidance.

Steps 1 and 2 involved getting closer to the original data from Hai. This process enabled the discovery of new information not noted on the initial reading. As Smith et al. (2009) predicted, these first two steps merged naturally. At this stage, three kinds of comment were made as they had suggested: descriptive comments, which were the rephrasing of the participant's account; linguistic comments, which included paying attention to the words and expressions that the participant used; and conceptual comments that involved my knowledge from the literature and life experience. For different kinds of comment, I used different fonts or underlinings (see Appendix G for an example of the three-column tables of data analysis). For this step, I exported the four core participants' interview texts from the NVivo project and converted them into Microsoft Word files. For each interview text, I made a three-column table: in the middle column, I put the original data, and in the last column I made the three kinds of comment, and left the first column empty for the next step.

Step 3 involved identifying emergent themes, referring to the three kinds of comment that had been made from the previous steps; the data reading then became more focused and interpretative. While checking with the linguistic and descriptive comments and the original source, I developed themes centrally from conceptual comments, mostly in the form of a phrase and sometimes even in the form of a sentence. Following the advice of Smith et al. (2009), I tried to make the themes concise and compressed, but at the same time still expressive enough to remind me of the original sources from which the themes had emerged, rather than using abstract codes. On one hand, I retained the original data sources and on the other hand, I allowed myself to be informed and guided by the research

questions and literature, to be certain that these themes are addressing the research questions. For this step, I imported the three-column table where I kept the original source, three types of comments and emergent themes into my NVivo project in order to prepare for the next step.

Step 4 involved searching for connections across emergent themes. Firstly, I divided the emergent themes under the overarching research question. Then I grouped the themes into different superordinate themes. The superordinate themes were based on subordinate themes, but at the same time, they were guided by my theoretical knowledge to some extent. Under each of the superordinate themes, subordinate themes from the interviews were organised chronologically so that I could trace from which interview a particular subordinate theme came (see Appendix H for an example of the tables of grouping of subordinate themes into superordinate themes). For this step, I created a node tree in my NVivo project that has allowed me to organise the themes hierarchically. On top of the node tree there were the research questions, under which there were the superordinate themes, and under the superordinate themes were the subordinated themes. I also made another Microsoft Word table following the hierarchy of the node tree, where I organised data extracts that were firstly detached from their original texts.

Step 5 involved analysing the data from the other core participants, Padma, Nada and Shu. Thus, Step 5 was actually repeating the previous four steps that I followed with the case of Hai for the other core participants one by one. First I followed Steps 1 to 3 almost the same way, but, I provisionally recycled the same superordinate themes identified from Hai's case for the other three. Thus, instead of identifying new superordinate themes for each core participant, the subordinate themes of the other three participants were grouped into the same superordinate themes. The reason that I organised different cases under the same superordinate themes is to allow each case (the part) to be connected with each other, contributing to shaping a united theme structure (the whole). The part (the subordinate themes of each case) and the whole (the same superordinate themes) started as incomplete; they developed together while closely interacting with one another. When there were considerable resistances and disagreements between superordinate themes and subordinate themes from a particular participant, I

tracked back to the origin of the superordinate theme and checked its validity. With this process, some superordinate themes, and subordinate themes that had previously emerged were discarded or altered, and sometimes new superordinate themes were added as the analysis proceeded into next participant. This step allowed me to undertake numerous hermeneutic dialogues, such as between themes and sources, between superordinate and subordinate themes, between the data from different participants, and between the whole theme structure and a particular case.

Step 6 involved looking for patterns across cases (see Appendix I for an example of the tables of communal pattern identification across the four core participants). At this step, I was able to have fairly fixed superordinate themes that were shared by all the four core cases. These superordinate themes acted as the boundary within which I was able to observe the patterns of convergences and commonalities, and those of divergences and nuances across the four core participants. These patterns had become 'grouping themes' which were situated between the superordinate and subordinate themes. I created a Microsoft Word table in which I organised the superordinate, grouping, and subordinate themes, and another Microsoft Word table in which I included the grouping themes and the locations of the relevant interview and supplementary data. I imported the tables to my NVivo project for the purpose of traceable data storage. This step enabled me to be ready for the writing of the findings chapter, during which I engaged in more focused, further analysis of the core participant's data, also incorporating the data from the four peripheral participants.

In fact, Step 6 was not the last step of data analysis and the analysis continued to the process of writing the findings chapter. Smith et al. (2009) state, "[There] is not a clear-cut distinction between analysis and writing up. As one begins to write, some themes loom large, others fade, and so this changes the report" (p. 110). By undertaking the data analysis following the six steps, I was able to develop some sort of indexical knowledge of data, which allowed me to reach easily the contents that I needed. I also came to identify the parts that closely addressed the research questions and communal patterns across the participants. However, I was not able to satisfy myself with the structure and themes of the findings that I obtained from

the analysis, even after I already had made several drafts of the findings chapters according to this analysis. This was mainly because they seemed not to correspond closely to what I had been sensing or intuiting from the data: the nature of the mind, cognition and knowledge of the participants and their SLA patterns in relation to the development of their knowledge of the target literature and research project.

This somewhat intuitive realisation led me to review Husserl's (1970) theory of knowledge more carefully. Eventually, I decided to undertake a further data analysis, through which I re-identified themes and rewrote the findings chapter. This further analysis was both top-down (deductive) and bottom-up (inductive) processes. That is, on one hand, I structured the findings chapter from main sections to sub-sections, and on the other hand, I re-read and bestowed new or modified meanings to superordinate themes, and classified them under the subsections of the findings chapter. In so doing, I sometimes moved data extracts from one superordinate theme to another. As a result, the organisation and sections of the final report (the findings chapter) that began to be developed after I went through the six steps of data analysis considerably evolved from the themes that had been attained through such steps. Moreover, the distinction between the core and peripheral participants became less important. I sometimes presented data extracts from the peripheral participants to support the themes that were derived initially from the core participants for the reason that they better portrayed such themes. Some new themes even emerged from the data of the peripheral participants and then were further supported by those of the core participants.

Willard (1995) notes, "[A] representation finds its fulfilment not immediately, but only by passing through other representations that are closer to the ultimate object [of knowledge]." (p. 146). I consider that the process, through which all the discarded themes prior to the final themes were identified, was not only unavoidable but in fact was meaningful and necessary for the final findings of the study.

4.4.3.3 The procedure of the analysis of the final LR text

The analysis of the final LR section was aimed at addressing the fourth subsidiary question (see Section 4.0).

The initial intention for analysing the LR texts of the participants was to examine the changes in their procedural and linguistic knowledge as the outcome of their SLA, which may have occurred during the data collection. For this objective, I decided to analyse and compare the initial and final LR texts of five participants, Hai, Nada, Mubin, Fadila and Tram, for the reason that there were observable differences between their initial and final LR texts, in terms of structure, volume and the breadth and depth of the content, and such differences would signal changes after their SLA.

However, as the analysis proceeded, I encountered some issues while attempting to achieve initial purpose of this document analysis. First of all, my chief supervisor pointed out that I should not assume that all new linguistic/rhetorical features that did not appear in the initial LR text but in the final one were the result of the SLA during the data collection period. This is because, for example, some linguistic/rhetorical features that did not appear in the initial LR but in the final LR may be what the participants had known even before commencing their PhD projects; their final proposals may have been revised by a third person and contained elements that were not part of the participants' own linguistic and procedural knowledge. Moreover, my research did not trace the acquisition of certain linguistic or rhetorical items selected prior to data collection, while seeking to clarify the overall SLA mechanisms and patterns which could be detected from the acquisition of any systemic and procedural resources. Therefore, I came to think that seeking to identify changes of certain features in the language of individual participants by means of contrasting their initial and final LR drafts would be not only problematic but also somewhat irrelevant to the overarching topic of the study.

While doubting the possibility of and necessity for achieving the original purpose for the document analysis, I began to see that analysing the LR texts of the participants was still very important for another reason as follows. One of main objectives of this study has been to suggest expanding the scope of SLA to embracing the acquisition of extra-linguistic knowledge and ability that is crucial for using language. Then from the interview data, it was indicated that using (and thus acquiring) English language in an academic context must involve developing the knowledge of and ability to use extra-linguistic thought-structuring patterns as

well as linguistic systems. However, a clear identification of the extra-linguistic elements did not emerge from the accounts of the participants. This dilemma seemed to be resolved to some extent by identifying the importance of the extra-linguistic elements of competence in using language from the LR texts, which I have incorporated into the conceptual framework of the study. Specifically, for the document analysis, I drew on Bruce's (2008a) theory of genre knowledge, particularly the concept of the four academic cognitive genres (CG): *Explanation*, *Recount*, *Discussion* and *Report*. In his framework he included Crombie's (1985) concept of interpropositional relations and Hyland's (2005) concept of *attitude markers* (see Chapter 3, Section 3.2.2 for a review of these concepts).

From the moment when I decided not to examine the changes in the knowledge of the participants, it also became unnecessary to compare and contrast initial and final LR texts. Therefore, I decided to use only final LR texts for the newly-set purpose, which was finding out and report to what extent the two core extra-linguistic abilities – using genre knowledge as critical elements of academic English. Then in accord with this revised objective, I modified the fourth subsidiary research question. As the analysis proceeded, I realised that it would be ideal then to analyse the final LR texts of two other participants, Shu and Padma, who provided me with their final LR texts as well. However, the timeframe did not allow me to do so, and thus I could only use the final LR texts of the five participants that were originally chosen.

The analysis of the five participants' final LR sections was as follows. Firstly, I did a preliminary analysis of the texts to identify elements of the SG and CG model. My initial analysis was checked by my chief supervisor who performed further analysis of the texts in terms of the writer's use of cognitive genres, including how closely their use of these textual patterns conformed to the features of the model (degree of prototypicality). Then based on this analysis, I made a more detailed description of the importance of using SG and CG elements as revealed in the participants' texts. That is, the focus was on finding out in what ways competence in using conventionalised thought-organising patterns is important. In doing so, I kept consulting with my chief supervisor to check the validity of my interpretation. I also undertook an iterative process through which

the analysis of the participants' LR texts was verified, questioned and corrected by my supervisors.

4.5 Assessing the quality of the study

As suggested in a number of research methodology resource books, standards and criteria for evaluating the quality of qualitative research reflect different philosophical orientations, based on which they were established (e.g., Duff, 2008a; Lincoln & Guba, 1985; Richards, 2003). In applied linguistics, it seems to be a current, pervasive practice to apply checklists based on the social constructivist paradigm, such as the one suggested by Lincoln and Guba (1985), to assessing qualitative research (see Richards, 2009b). However, those social constructivist criteria, despite their widespread acceptance among researchers in the area, would not be suitable for evaluating the present study, due centrally to its deviation from that particular research paradigm. That is, I am reluctant to discuss the quality of this study in terms of how successfully it has *constructed* the reality. Instead, I wish that the quality of this study, as those of any other research studies, is assessed in reference to the extent to which it has *uncovered* the reality existing objectively.

In this section, I discuss the quality of the study in terms of Husserl's (1970) three conditions for knowledge reviewed in Chapter 3, Section 3.1.4 (Section 4.5.1), and in terms of the criteria for assessing IPA research suggested by Smith (2011a) (Section 4.5.2).

4.5.1 The quality of the study in terms of Husserl's three conditions for knowledge

Husserl's (1970) three conditions for knowledge reviewed in Chapter 3, Section 3.1.4 are applying logic, transcending towards the object of knowledge (data) and achieving intersubjectivity. They are all essential for knowledge to be the knowledge of the object itself. Here I discuss the extent to which the present study has met these conditions in the process of developing knowledge of the research topic.

4.5.1.1 *Transcending towards data*

The expression that “data do not speak for themselves” is often stated to emphasize the importance of having a clear worldview and conceptual framework in understanding data (e.g., Willig, 2008). However, no conceptual framework would help the researcher to find out things that do not exist in data.

Bearing this in mind, I sought to achieve this first condition of knowledge – transcending towards the data in several ways. For example, before actual data analysis, I tried to read the data (texts) several times to become familiar with the content. I engaged in this type of data reading while analysing data as well, realising that it helped me to uncover new things and also find more suitable extracts that support themes that had been identified already. In addition, I tried to check thoroughly how clearly and precisely my interpretations reflect the data extracts by comparing my written analyses and the corresponding extracts. When dissatisfied, I focused on the extracts themselves and tried to see what I had missed or misunderstood. In such a case, I also put the extracts back into the original text where they came from so that I could read them in the whole context.

4.5.1.2 *Applying logic*

Chapter 3, Section 3.1.4 discussed that the laws of logic that Husserl (1970) suggests are *a priori*, universal beyond any culture or language, which guide a person’s thinking to take place in accordance necessities and possibilities, eventually leading the person to arrive at truth. Willard (1982) explains logical thinking as following necessities and possibilities as follows:

When snow...is under the influence of heat, they will not remain snow and heat; but at the advance of the heat, the snow will either retire or perish...Now the same general ontological structure of necessities and possibilities determined for subjects by their properties also governs within and between cognitive acts. The forms of the thought *that all men are mortal* and *that Socrates is a man*, along with their truth, necessitate truth in the possible thought *that Socrates is mortal*...The necessities and possibilities in the relevant individual cognitive events follow from the qualities and relations embedded in those events. (pp. 396-397)

Geisler and Brooks (1990, pp. 166-179) suggest that, in undertaking an inductive research study, applying universal logic in understanding data would help the researcher to avoid eight logical fallacies “in which confusion can arise about

what should be considered a cause and what should not” (p. 166), such as the *post hoc* fallacy or the fallacy of *reversing cause and effect*. In the course of analysing data, I sought to apply logic in the way that these philosophers propose. For example, when examining the relationships between the SLA of the participants and social processes, I strove to see whether or not the influences of social processes on the processes of their SLA directed indicate that such social processes were actually *conducive* to their SLA as the social, cultural approaches claim. In addition, I also struggled not to overlook the accounts of the participants that seemingly contradicted some potential findings, knowing that to do so is the fallacy of *neglecting negative evidence*. In fact, such struggling, although difficult, rather helped me to develop a better understanding of their SLA experience eventually. Moreover, by being aware that ambiguity is a fallacy of logic in a research study, I sought to think and write as clearly and precisely as possible, which was able to be achieved to a greater extent with the help of my supervisors (see the following discussion of achieving intersubjectivity).

4.5.1.3 Achieving intersubjectivity

What allows a group of people to experience intersubjectivity is to be in, and perceive the same world. When understanding the concept strictly in the context of attaining knowledge, intersubjectivity takes place when the cognitions of people converge onto the same object of knowledge (Willard, 1982).

Intersubjectivity in the present study was firstly achieved between my participants and me (the researcher), and among the participants, by exploring the same research topic that I brought to them. The participants provided their accounts based on their own personal experiences, but they were all undertaking the LR in the same context, which allowed me to uncover communal patterns from their individual, unique experiences. Then intersubjectivity also took place between my supervisors and me. My supervisors understood the research topic and research questions, and they read my research reports (the chapters of this thesis) a number of times, carefully checking, revising and validating my understandings of data and the research topic. They directed me to refine my thinking and language more logical, clearer, and more accurate, which in fact pushed me to meet the other two conditions of knowledge more satisfactorily.

4.5.2 The quality of the study as IPA research

For assessing the quality of a study as IPA research, Smith (2010, p. 17) suggests criteria, such as:

- clearly subscribing to the theoretical principles of IPA;
- being transparent and coherent so that the reader can see what was done; and,
- undertaking sufficient sampling from corpus to show density of evidence for each theme.

In what follows, I briefly discuss the quality of this study in relation to these three criteria.

4.5.2.1 Practice of the theoretical principles of IPA

The central theoretical principles of IPA are, as reviewed in Section 4.3.1, researching experience from the person's first perspective, focusing on the particular and interpretative approaches to data. Practising these principles was a complex processes in different stages of research procedures, and the judgement of the extent to which this study successfully achieved the task should be made by the reader. Here I present some actions that I took to implement them. Firstly, I sought to identify most of themes that address the research questions from the interview data that contained the participants' own accounts for their experiences. Then in the findings chapter, I will present ample verbatim interview extracts, so that the voice of the participants could be shared with the reader. Then I tried to understand communal traits of the SLA experiences of the participants by fully exploring individualities and subjectivities. That is, as I reported in Section 4.4.3, I initially analysed the cases of the four core participants individually, and then looked at both convergences and divergences among the participants within a particular theme, as ways to make sure that themes or descriptions of themes could embrace the uniqueness of each participant. In addition, I allowed myself to make interpretations of data informed by the theoretical framework to grasp the meanings of the comments of the participants, some of which they themselves might not be aware of.

4.5.2.2 Transparency and coherence

As Smith et al. (2009) note, transparency is concerned with “how clearly the stages of the research process are described in the write-up of the study” (p. 182). To meet with the criteria, I tried to illustrate the procedures of data collection and analysis clearly and specifically in this methodology chapter. In an endeavour to achieve coherence, I strove to achieve alignment and consistency in my argument from the literature review to the findings to the discussion, fully incorporating the phenomenological realist paradigm.

4.5.2.3 Sufficient sampling from corpus

Smith (2011a) suggests that, when the number of participants is between four and eight, each theme is considered as valid when supported by extracts from a minimum of three participants. The findings chapter demonstrates that I have sought to meet this criterion. I corroborated themes initially derived from the core participants’ accounts with data from the peripheral participants. Sometimes themes emerged from the peripheral participants. Then I went back to the data of the core participants for the verification of such themes. However, the sampling for the document analysis of the final LR text was exceptional, not following this guideline. Instead, I tried to carefully describe instances selected to examine certain aspects subject to the analysis, and then have the analysis checked by my supervisors.

4.6 Conclusion

This chapter presented the methodology of the present study, including the research questions, the philosophical and theoretical underpinnings, the actual research procedures and the discussion of the quality of the study. In essence, this study applied the qualitative approach, IPA, to collecting and analysing data in accordance with the realist paradigm. In the line of the overall resistance to the social, cultural SLA stream, this study disputes the social constructivist approach that claims the research findings are co-constructed as the products or effects of discourse (language use) between the participants and researcher. Instead, it approached to the SLA experience of the participants as the object independent of my (the researcher’s) cognition and act of researching. Therefore, it is claimed

that the findings of the study were revealed by the participants, and then were uncovered or found out by me, the researcher, through the analysis process.

In the following chapter, Chapter 5, I will report on the findings, the outcome of the methodological practice presented in this chapter.

5 SLA IN DEVELOPING ACADEMIC KNOWLEDGE

5.0 Overview

Chapter 5 reports the findings of the present study. The findings emerged from a double hermeneutic, phenomenological understanding of the first person accounts of the participants. They were then triangulated with supplementary data, including supervision meeting summaries, personal notes or memos and concept maps (see Table 4.6 in Section 4.4.2), and a document analysis of the research proposal drafts. The overarching research question addressed in this chapter is:

What is the nature of the second language acquisition (SLA) of eight PhD students while undertaking the literature review (LR) in English, their second language, during the period of preparing the research proposal at a New Zealand university?

Drawing on Widdowson's (1989) concept of the language user's competence as knowledge and ability for using a language, I consider the SLA of the participants refers to acquiring knowledge and developing ability required to use academic English, their second language (see Chapter 1, Section 1.5). The overarching question is addressed by answering the four subsidiary questions, which are:

- 1. What are the central cognitive dispositions and processes that characterise the participants' approaches to developing academic knowledge while undertaking the LR?*
- 2. To what extent is the SLA of the participants understood in terms of their cognitive dispositions and processes characterised in reviewing the target literature and research planning?*
- 3. To what extent is the involvement of the participants' communities facilitative of their SLA?*
- 4. In what ways is the use of prototypical thought-structuring patterns important and (thus) is indicated as part of academic English competence?*

Sections 5.1, 5.2, 5.3 and 5.4 respond to each of the four subsidiary questions respectively. Section 5.1 identifies the cognitive features in the approaches of the participants to reviewing the literature and attaining academic knowledge. Section 5.2 then examines their SLA – the development of their competence in academic English, in relation to the cognitive dispositions and processes identified in Section 5.1. In the following Section 5.3, I seek to understand the extent to which their academic communities played a facilitative role for their SLA. Section 5.4 considers in what ways genre knowledge is revealed as a critical element of academic English competence by analysing the LR texts of five participants. Lastly, Section 5.5 concludes this chapter by briefly summarising the findings and introducing the following discussion chapter.

In presenting data extracts, I have sometimes underlined some parts that I intend to emphasise, and inserted square brackets [...] to indicate glossing of participants' meaning. I also have numbered the data extracts so that I can refer to them in further analyses and discussions.

5.1 Cognitive dispositions and processes in undertaking the LR

Section 5.1 addresses the first subsidiary question:

1. *What are the central cognitive dispositions and processes that characterise the participants' approaches to developing academic knowledge while undertaking the LR?*

Firstly, Section 5.1.1 considers the meaning of undertaking the LR in the research context, prior to examining the cognitive characteristics of the participants manifested while performing the task. In Section 5.1.2, the findings suggest the intentionality of the participants as the necessary condition for both their knowledge and language development. Then Section 5.1.3 reports the accounts of the participants that suggest that thought and language in their academic knowledge seem to be two separate entities although they were interrelated and closely cooperated for undertaking the LR. Finally, Section 5.1.4 presents data that seem to reveal the epistemological tendency and strategies of the participants in carrying out the LR.

5.1.1 Undertaking the LR during a conditional enrolment period

As explained in the previous methodology chapter, I collected data from the participants when they were at the stage of preparing a full research proposal for their PhD projects. Thus, for them undertaking the LR did not yet involve writing the LR chapters for their theses. Hai, a core participant, was aware of this from the first month of her PhD, noting, “I guess it’s for the working title [of a full research plan]. I just have the working title, after do my literature review” (Mar 13, p. 8). Then in her final month of her conditional enrolment period, she provided me with an account for why she thought that the LR of the research proposal is different from that of an actual thesis.

1

The literature review for my proposal is little bit different from the literature review for a PhD thesis. Because, I think that for the proposal, the literature review is a kind of argument for you to say why your study is worthy to do, based on the literature review. You know the gaps in the literature and you develop your research question. But, for the PhD thesis it is a little bit different because at the end the literature review is perfect. I mean it covers all the things you have in the later part in the discussion and then findings. (Hai, Interview, Sep 18, pp. 1-2)

In addition, although there is the LR section in the required research proposal, the participants did not narrowly define undertaking the LR as just writing the LR section, but preparing the whole research project. For example, Nada, a core participant, when she had finalised her proposal, pointed out, “You need the literature review [for] all other sections. I think that the literature review section is more or less to explain your other parts, when you write the other parts of your proposal” (Sep 7, p. 8). Similarly, Hai thought:

2

It (the literature review) is very important. If you don't understand theory, how can you design a good data collection methodology, I mean how can you design good question guideline...you would get nothing. you will understand the theory...and then .. you relate [it] to your research topic and you turn it into the questions.(Hai, May 22, p. 8)

The comment of Hai above suggests that undertaking the LR is the overall process of developing her knowledge of the target literature (in her own words “theory”) for different aspects of her research project, such as her methodology. This was

also stated by Shu, another core participant, at her last interview when asked the purpose of the LR done during the six-month conditional enrolment period:

3

Ok, I think the purpose is very obvious that is you know to familiarise yourself with the area you're working in and now how much other researchers have done and what areas they have covered. (Shu, Jan 12, 2012, p.1)

However, obviously, for a successful undertaking of the LR, developing academic writing competence was still very important for the participants to communicate their knowledge with their supervisors (and eventually the postgraduate committee members). Mubin, a peripheral participant, shared his somewhat painful, hard experience through which he learned the importance of developing this competence:

4

I started to write first few months... so I took my first few months and my co-professor, he's very blunt, he told me that this (his proposal including the LR section) doesn't make any sense to me. This looks like a wall paper, you can put it on the wall and people will look at it, but never give their second thought... it has to have some structure it has to have a some kind of picture you know clear picture of what you have read, and should be able to be understandable. it should have some sense... so I went back and sat down and listened to his comments [that I recorded] to see if I exactly understood what he said... then I changed my literature to this, this is kind of my second literature review... and my supervisors said ok this looks good. (Mubin, July 5, pp. 3-4)

Thus, the participants' undertaking of the LR during the conditional enrolment period could amount to the process of developing knowledge of the target literature for planning their research as well as competence in composing text in accord with academic conventions. The rest three subsections of Section 5.1 explore the cognitive and epistemological features of the participants manifested during this process of undertaking the LR.

5.1.2 Intentionality as the fundamental condition for knowledge and language development

For the participants, undertaking the LR essentially involved engaging with a range of social interactions and processes, including the reading of the literature

or having formal and informal conversations with their supervisors. The findings of this section suggest that it was the intentionality of the participants that motivated and directed their knowledge development while engaging with such processes.

Firstly, in the following data, Shu mentioned informal conversations that she seemed to undertake purposively in the context of carrying out the LR, while Nada described her selective way of reviewing the literature:

5

I think people learn when you talk when you listen. This is for me. I meet a lot of people and I talk a lot ... I benefit from my talking with people so either colleagues or other PhD candidates ... you can learn I mean you pick up things easily... from talking and listening and talking ... when people talk they just come to the point. (Shu, Aug 15, p. 8)

6

Ok, the way I was doing my literature review is, I did it simultaneously. As I was writing first, I sort of write what I want to say and then look for the literature on that, and then, for example I was writing about wellbeing, for example, one specific domain ... I want to do this and this is what I want to find this type of thing (Nada, Sep 7, p. 4)

On the surface, the experiences of these two participants here appeared to differ. However, it emerges from the both accounts that they intentionally initiated the engagement with messages from other people (including texts), and the consequent attainment of knowledge could occur because they were purposefully directed at the sources of such knowledge.

The role of the cognitive directedness and intentionality towards knowledge sources that they intended to learn from during social processes was also indicated in the following data from Shu, Hai and Tram (another peripheral participant) gathered on September 2, 2011, when we all attended the same session for PhD students about successfully completing the full research proposal. After the session, I interviewed them separately. To my question of how the session helped them, they responded:

7

I think that the experts go to the workshop to share their idea, to share their experience, but experience that based on the questions of the students ... I mean, all the things that need for me. I have a question so I just asked... for me, [if] I don't have question, I don't go to any workshop... I go to the workshop when I have purpose. (Hai, after a session on Sep 2, p. 2)

8

I found this one (session) was really helpful ... sometimes maybe you do have a question but ... sometimes you're shy or you don't think you're not that brave or confident enough to say if it is a good question but maybe question like that could be asked by others. (Shu, after a session on Sep 2, p. 1)

9

I don't think it's (what was discussed in the session) new at all because sometimes I mentioned the problems with my supervisor and we also share with my fellow friends... and I also think something every similar with what you and others say and what the supervisor talk about. That is, we have to share with other people not only just with our supervisors but also any people inside and outside of field. It is quite a big communication. (Tram, after a session on Sep 2, p. 1)

Firstly, attendance at the session was not compulsory, so participation was initiated by the three participants themselves, indicating their intentional, selective engagement with social processes. During the session, Hai asked questions and shared with other participants about how she was preparing her research proposal while Shu and Tram were quietly listening. Whether or not they were actively participating, they were all inwardly responding to the sharing of other participants. Consequently, their attention to what was shared during the event was directed at certain issues that they wanted to know about or had an interest in.

In contrast with the directedness and intentionality in the previous accounts, a lack of direction is evident in the following accounts of Tram, Fadila (a peripheral participant) and Shu. They all reported that, at an earlier stage when they had lacked focus or direction, input from reading the literature (social process or act), a lack that appeared to result in little or no knowledge attainment:

10

I think doing literature review is very stressful (laugh). I just read, I just write down some main ideas, but, because, as I told you before, my topic is so broad. So I have no focus. I'm very confused. I don't know what I should write about. (Tram, Aug 21, pp. 10-11)

11

It is not easy to achieve, because you could find many relevant resources, many, there are huge amount of research done in your area, but when reading a particular research, you find many ideas, literally too many scholars' research findings. ... But the point is how you're going to form your literature, it is quite difficult so far. (Fadila, Apr 13, p. 10)

12

You read one article of this author he could mention ten, or twenty or thirty other authors ... you want to read them and sometimes reading can get maybe a little bit of off the trace...I may go here and there and then there are a lot of things tangled in your mind...I think that is most difficult. (Shu, Dec 16, p. 6)

Then in following interviews, Fadila and Tram pointed out the problems that they had previously in engaging in process of the written communication:

13

At the beginning, when I first came, I started reading just reading merely reading. At that time, I was not forming any idea of collecting, selecting any particular part, interesting point to my area. But ... I started thinking that focusing on my research question ... So, when reading, I have a focus in my mind. Every time I select, search for something about ICT, still that point of the research question is in my mind. (Fadila, Apr 28, p. 8-9)

14

My supervisor just asked me to keep reading log. But I can't do so. You know, I tried sometimes but I read a lot and if I just summarise and criticise it takes time but later on I don't use the most of them. So now I change my way. I just think of the outline of my literature review, and then I read and what I can get I think it is appropriate for my literature review. I just put them in the categories and organise ideas (Tram, Oct 26, p. 4)

Thus, it appears again that the directedness or intentionality of the participants' minds was what enabled them to access and engage with their knowledge sources, such as concepts or theories of other academics in spoken and written communications. Then in the following comment of Padma, I could identify two very crucial features of her intentionality that allowed her to undertake the highly complex task of the LR:

15

My mind is always ... toward that. Two and a half months my mind was always there. I remember I was dreaming and even when I sleep I was thinking about literature review, and always when I go to sleep, I spent about half and an hour or even an hour in the bed, thinking, ok what's the flow... always it's there in me. In daytime, my work had really me. Even though I don't have time to attend, really in my mind, I was processing thinking. I remember trying to remember the articles that relate then I tried to link all that it's just it's all that. (Padma, Aug 10, pp. 11-12)

Firstly, Padma indicated that the personal directedness towards the sources of her knowledge was constant and on-going so that such knowledge sources that she perceived from texts were present in her mind even when she did not physically engage with them by reading or listening. Secondly, it emerges that her mind was intentionally putting pieces of information together into a body of knowledge, which must be about her research topic.

However, it should be noted here that having recourse to the intentionality of their minds for selective, purposive development of their knowledge does not necessarily indicate that the participants were not influenced by external social factors. In fact, social factors influenced the participants in relation to their knowledge development. For example, the current trend of their own subject fields seemed to be one of these influential factors, as displayed in the accounts of Hai, Padma and Kusum:

16

It must be current and I think that it's not against the current trend of other researchers. It shouldn't be that old. It shouldn't be back 20 years ago and [then] it's outdated, I mean, it's outdated yeah. (Hai July 2, p. 4)

17

You have to learn how to do research and for that, you first have to learn about the discipline that you're going to be in...[And] the best way of learning about the discipline you are going to be in is reading journal articles which will give you the information about happening in your discipline. (Padma, March 21, p. 5)

18

You can learn from others past studies and definitely methodologies in that particular area you can see what trends are going on, you know, so in my opinion that's the purpose of the literature review. (Kusum, June 16, p. 14)

In addition, obviously, at the early stage of their PhDs, the comments and opinions of their supervisors were also considerably influential to the participants. This was acknowledged by Hai, Padma, Shu and Fadila when they explicitly expressed that they expected their supervisors to check if they were “on the right track” (Hai, Mar 13, p. 15 & 16; Padma, Apr 19, p. 4, Shu, Nov, 12, p. 1 & 2; Fadila, Apr 28, p. 1). In the same vein, Tram and Kusum remarked:

19

T: In fact not only social, it should be the combination between the cognitive and social perspective in second language acquisition, because she [her supervisor] says that some people who just focus on cognitive perspective, some on social perspective.

I : But she [her supervisor] wants you to have balance between them.

T: Yes of course. There are some researchers who investigate both...cognitive and social framework. (Tram, Oct 26, pp. 3-4)

20

I wrote first and then sent my supervisor and they told me about blended learning. Are you sure to put this part and, if you do this you know what's gonna happen? Let's think about it you don't need to change just think about it. And then when I came back I think about it. Yeah maybe I should not include that because I am leading myself to, I mean, what should I say, when I say blended learning, when I came, I looked at online learning, you know environment. So, I took it out. (Kusum, Nov 30, p. 3)

An interesting aspect that emerged from the five accounts of the participants above is: the academic trend and their supervisors' comments could be influential because these participants actively responded to and accepted them. That is, the state of *being influenced* by social surroundings would not be something that the participants could have control over. However, their responses to such social influences seemed to centrally involve their particular volitional choices and decisions. This seems to be more clearly revealed by the case of Padma following, in which she decided not to take her supervisor's suggestion:

21

One time with my model, my second supervisor wanted me to add some elements of power to it. But I felt that it should not be added...I thought it is not going to be relevant...I went back home, and I read the literature again, and then, I was convinced this is not coming here. And with that backup information, I went to the meeting and he asked me, he said, “Can you defend yourself? Can you tell me why this is?” Of course I explained to them clearly and he said, “In that sense, ok it's fine. You don't need to take

it.” ... He has a different perspective in looking at my model but I have some different perspectives. (Padma, Aug 21, p. 12)

Throughout the interviews with her, Padma told me how much she trusted in her supervisors, and it might not be easy for her not to agree with her supervisor’s suggestion. Nevertheless, when she thought the power element that her supervisor suggested was irrelevant to her conceptual framework, she expressed her disapproval of his suggestion. Thus, again, people in their academic context and other social factors influenced the participants, but when carefully considering, the participants actively dealt with these influences, making decisions for whether to accept or resist them.

Overall, the intentionality of the participants at a number of levels appeared to create the fundamental condition for the development of their knowledge and language, helping them to engage with social processes and to be directed at knowledge sources in a focused way during this social engagement.

In Chapter 6, Section 6.2.1, I will argue that the intentionality of the participants appears to be a crucial indicator of the ontology of their minds, which in turn sheds light on how the nature of their SLA can be understood.

5.1.3 The relation between thought and language in knowledge development

This section presents the accounts of the participants that appeared to reveal the ontological relation between thought and language in the process of developing and demonstrating their knowledge of the target literature.

An understanding of the ontological states and relational structures of thought and language among my participants emerged from negating one of the assumptions that I had held at the outset of data collection. At that time, although I already had the concept that SLA must be related to the development of overall academic knowledge, my research was still narrowly focused on language. With this focus, I presumed that for the participants, improving their English would be their central concern and interest.

At first, a comment of my first participant, Hai, from her first interview seemed to support my presumption:

22

One more thing that I worry is, sometimes it's very difficult to understand the books, all the articles I read. I got high mark in IELTS test, I got 9 actually, but when I'm reading some articles, I don't understand what they are talking about.... I don't understand, meaning of some articles, their intention, because my supervisors expect me to be critical in reading. But you cannot be critical when you don't understand the articles. (Hai, Mar 13, p. 17)

Prior to this comment, she also mentioned on the same interview day:

23

In the meeting [with my supervisors], actually I couldn't understand everything of what they say, just, I mean, one third of that. So, because I cannot understand everything, so, it wasn't very helpful for me. Because if I understand what they are saying, I then, I then can ask them questions right away. (Hai, Mar 13, p. 6)

With the two comments of Hai above, I anticipated that I would easily collect ample data that explicitly displayed how the participants acquired English language. However, unlike my initial expectation, findings from my subsequent data collection showed that, except for Shu, the other participants including Hai appeared to be little concerned about this matter. For example, whenever I conducted unstructured monthly interviews with each participant, it was not easy to induce them to talk about their learning and progress in this area. Even when I explicitly addressed the issue, the participants tended to redirect our conversations back to what they were centrally concerned with: developing the academic knowledge necessary for their research projects. This overall tendency of the participants that I found is summed up in a conversation with Hai as follows:

24

I: Hai, when you came to New Zealand to do a PhD, to improve your English is one of the purposes to come here?

H: No.

I: Or, did you expect that?

H: No, not at all. my first priority is not English. I just want to be a researcher. That's all. Actually I don't know how to do research (laugh)... If you can understand what other people are talking about ... I mean, if you have the same knowledge as other people, and then listening is no longer become a problem. Yeah. It's enough for us to survive to be a researcher. (Hai, May 22, pp. 7-8)

Thus, although she was concerned about her English competence reported in Extracts # 22 and 23, improving her English appears not to be what she centrally intended to achieve. I once even felt frustrated with the overall attitude that the participants displayed, not knowing how to unravel it. I repeatedly revisited the first two comments of Hai relating to her English competence. I also reflected on the accounts of Shu and Tram as follows, which show that they also struggled with the same issue that Hai had:

25

You know that academic reading it is not that easy, so it took me much longer time to read...maybe in Chinese in your language you can pick up those ideas while you're reading, but in English you need to read it, and yes you also do that while you're reading but for some you have to re-read it to get those important ideas ...even if you spend a lot of time still you didn't quite catch the point, maybe there's misunderstanding. (Shu, Aug 15, p. 13)

26

I : How about doing the literature review in English?

T: It is difficult to because when I read some articles I don't really think I can understand correctly or not. Yeah so it is just from my understanding but I don't know how exactly it is, if it is. (Tram, Aug 21, p. 11)

The remarks from the three participants seem to suggest that their concerns about English related to the fact that important sources of the knowledge that they sought to develop were encoded in language that they found difficult to understand. That is, the consideration that the target literature was written in English was an obstacle in undertaking the LR appeared to lead them to be worried about their level of English. This similar attitude of the three participants obviously suggested that, although they might think they needed to improve their English, the ultimate purpose of such need was to better comprehend the content of the target literature. Significantly, such an attitude provided me with an initial clue to consider the possibility that the content of the target literature was delivered by means of English language, but the content (consisting of the authors' thoughts) and language were in fact two separate entities. This inference was also underpinned by the fact that some participants sometimes re-encoded some meanings embedded in English texts in their own first languages in order to understand them more clearly (see Extract # 40 in Section 5.1.4 & Extract # 46 in Section 5.2.1). This, for me, seemed to have been possible because these

participants firstly separated the meanings from the English language that originally encoded them.

The ontological separateness of language and thought in knowledge that seemed to be implied in the accounts of Hai, Tram and Shu emerged more clearly in two other comments of Hai relating to expressing her thoughts in writing. Firstly, at her second last interview, when I asked what she was doing, she replied:

27

I'm looking at analysing data, yeah because nothing serious with that part (her LR draft) I think it's ok it's ok now I just change the styles of , writing style yeah the writing style to make it look more professional. (Hai, Jul 2, p. 1)

Again her comment, apparently trivialising of linguistic styles, seemed to suggest that, in her mind, her extra-linguistic content (thoughts) and linguistic resources existed as two separate systems. In addition, she also seemed to consider that the former is more central and important while the latter is somewhat subservient to the former. Then, another comment from Hai on the same day confirmed the above notion, which was her response to my question if her “Vietnamese English” shapes her thinking. For the question, I referred to a published Vietnamese scholar called Ha, whose book Hai considers as an ideal example of academic English writing. She argued:

28

Language is just a tool to express ideas and ...she [the Vietnamese scholar] is Vietnamese but I also read what others write... I mean that her ways of writing is not unique but it's very, it's very personal and I mean, [as] the author of qualitative book ...I think that language is the way to express your ideas. For some people, they can be very good at language but they have no idea. I mean, one reason that Ha can write such beautiful writing is that she has some very excellent ideas and you know her ideas are unique I mean she is very intelligent she has some knowledge to tell you about, and the language is just a tool for you to express your idea. (Hai, July 2, pp. 9-10)

In addition to her consideration that thought and knowledge of language are two separate systems, the argument of Hai above also seems to suggest that, in the process of being expressed, thought either already exists or is formed first, and then it is encoded in language.

The accounts of the participants thus far appeared to suggest the relation between the content of thought and language as two distinctive knowledge areas; the latter encodes the former. In addition, some accounts from the participants seemed to suggest that the knowledge for academic writing involves some sort of procedural knowledge required for structuring the content of thought above and beyond linguistic knowledge. For example, this is evident in the comment of Fadila:

29

I think we need to learn actually really learn how to write a literature [review]. It's not [just] about English... It's [also] about strategies of writing literature review. It's different. That's what I found, because you could be good in English, but you could not be good in writing literature review. (Fadila, Apr 13, p. 9)

The idea that academic writing requires more than just having good knowledge of and ability to use language (as linguistic systems) was indicated earlier in the narrative of Mubin in Extract # 4 in Section 5.1, and again in the comments from Mubin, Nada and Kusum (a peripheral participant) as follows. They stated that they were generally confident about their English level, but not in composing text in the more academic style required when writing a PhD thesis. That is, in terms of English language skills, They said “[my English] in general sense is alright” (Mubin, July, 6, p. 4), “I can't find difficulty [with using English]... because...I was schooling in English” (Nada, Apr 9, p. 11), and “I've been using English all the time...English is definitely more comfortable” (Kusum, Jun 16, pp. 9-10). On the other hand, their remarks relating to writing the LR or research proposals for their PhD projects suggest that they were less confident in that area:

30

I don't think, um... when you are doing masters, it's like you make a draft...because it's just masters' thesis, so itself, it's very small... my literature review was not that extensive. (Mubin, Apr 12, p. 6)

31

I have some kind of experience in that, but I feel now when I look at PhD, it's kind of shallow research papers. You just, I get probably ten articles, you know, you just write what has been happening or what people have done, but PhD, I have come to realisation that it has to be deeper than that, and I need to improve my skills in that area. (Kusum, June 16, p. 2)

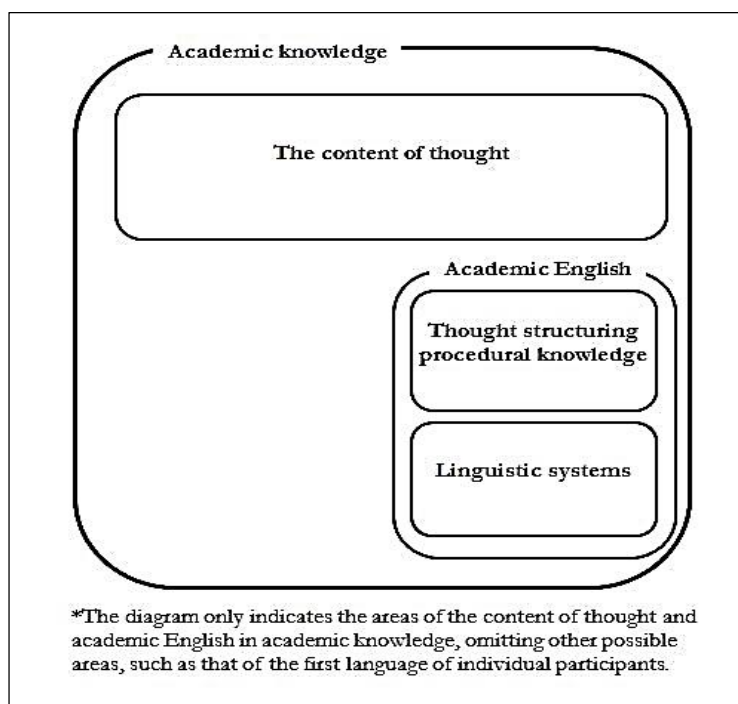
32

I guess the initial proposal, that is not good at all. After I talked to my supervisor, [she said my initial proposal is] not adequate at all, not focused also (laugh). (Nada, Apr 9, pp. 6-7)

As will be seen in Section 5.2.2, the competence required for extensive academic writing that the three participants above seemed to think that they needed to develop includes the knowledge of academic vocabulary. However, their comments seemed to signal more centrally that their awareness that, for academic writing, they should know how to structure and compose extended, substantial academic text besides having a fundamental linguistic competence in English language.

Overall, the findings of this section seem to suggest that, in the minds of the participants, more specifically in their academic knowledge, the content of thought and language are two separate areas. Then, in composing an academic text, such as a LR text in academic English, knowledge of academic English means not just the knowledge of linguistic systems that manifest thought in the form of written text but also that of organising and structuring text (thought). The ontological structure of thought and academic English in the academic knowledge of the participants that seemed to be revealed in their accounts can be diagrammed as in Figure 5.1.

Figure 5.1: Thought and academic English in academic knowledge



The ontological relation between thought and language and its operation will be explored in greater detail and related to the SLA of the participants in Sections 5.2.

5.1.4 Understanding meanings intended in the target literature

This section reports the participants' epistemological approaches to reviewing the target literature that emerged from their accounts.

Clarifying this issue began by considering two competing notions of the nature of knowledge. One is the idea broadly shared by scholars from the social, cultural SLA stream, which suggests that knowledge is, by nature, relative, cultural and linguistic (e.g., Duff, 2002; Kramsch, 1993, 2004; Lantolf & Thorne, 2006). On the other hand, the other notion is from the realist philosophers, Husserl (1970) and Willard (1984, 1995), which argues that knowledge is a set of mental representations consisting of thought relations, which can be precise understandings of what is known as it is.

To begin with, I present Fadila's response to my question of whether or not being a second language speaker influences her understanding of the knowledge of others written or spoken in English:

33

Just let's put it in a situation like a person knows only her mother tongue, right? I think we are very different from that person, because our mind is open to different, we hear different thing. When we hear different things we tend to reflect back so when reflecting it will be creative ... the reflection different from the one who is working in her mother tongue. (Fadila, Jun 7, pp. 2-3)

Here she appears to claim that, if someone can speak more than one language, the different languages that she speaks allow her to hear different things and then think creatively. Her idea was interesting, but her exact meaning was not clear to me, so I asked her to give an example of what she meant by hearing different things and (then) becoming more creative than the one speaks only one language. She added:

34

Other languages you've been already exposed, you have some input in your mind because if you ask me 'salt' in different languages I know what is salt in different languages so meaning that we have that ability to put many things in one. (Fadila, Jun 7, p. 4)

Thus, Fadila's two above accounts seem to display two important points. Firstly, creativity from her perspective does not involve deriving different interpretations of a thing or concept when using different languages, but rather having more linguistic resources to encode the same thing or concept. In addition, her idea of the cognitive ability of the multilingual that she mentioned seemed to suggest that the mind of a person can stretch beyond his/her cultural/linguistic frames. These two points implied in her thinking appear to be congruent with the realist notion of the capability of the human cognition, while not exactly matching the culturally relativistic view, which claims the person's thought is completely bound to culturally acquired schemata (e.g., M. Johnson, 1987).

Corresponding to the latter point emerging from the preceding comments of Fadila, Padma's and Shu's observations about themselves in relation to understanding the target literature seemed indicate that their ways of thinking were not completely bound to their own cultures.

#35

Regards to my exposure (to her own culture), compared to Kiwis (New Zealanders) here, it's different, so my culture has contributed a lot in

understanding ...concepts [from the literature]. My religion has contributed a lot. But I always think that it's something very individual. I mean, it's just me. (Padma, Jun 8, p. 7)

36

Of course ...there should be big part there is Chinese culture because that is, you know, a culture in which I was brought up, so of course there will be those influence. But there might be also western philosophy which I think is true or is right. (Shu, Jan 11, p. 8).

Therefore, the two participants seemed to consider that, although they were certainly influenced by their own cultures, they also understand the target literature outside of their cultural backgrounds. Then the following remark of Nada, which was about her realisation that her and her supervisor's own conceptions of family were different, seems to further suggest the cognitive capacity for extending the mind beyond one's own culture is critical to understand others' ideas or concepts precisely:

37

I was talking with my supervisor about wellbeing is conditional. So I was telling her in Maldives, if you say living with family, that doesn't mean that you're living with your spouse. So it is really meaning that you're living with your children [and] parents...if you live [only] with your husband it's not really, then you're living alone (laugh) with your husband. Then we are not calling this living with family. Because it came up like in that research that was done here [New Zealand]. Living with family, living condition what they have discussed here is that mostly living alone, living with spouse, living with partner so I was talking that is not living with family. For me it is not living with family (laugh). I mean, in Maldives, we interpret living with family differently, because we mean, in our concept, living with a family is extended family not nuclear family. So if I was with my nuclear family it is not living with my family. My sister, my parents should be there....yeah for me for us it's very different. (Nada, Jun 10, p. 16)

On the surface, Nada seems to suggest that a person from a different culture would interpret the same concept differently from what was originally intended to be meant by her supervisor. However, when carefully considered, her concept of family and that of her supervisor are in fact two different types of family (extended and nuclear) corresponding to the reality of her country and that of New Zealand respectively, differences which Nada understood correctly and formed part of her existing knowledge. Therefore, her experience of dealing with the two different concepts of family seems to accord with the notion that acquiring or

developing specialist knowledge centrally involves arriving at an accurate understanding of the object of knowledge beyond cultural, linguistic influences.

In the same vein, her realisation of the need for different concepts and theories to account for the well-being of elderly people in small countries like hers (her area of research) seemed to come after precisely understanding existing concepts and theories of well-being from the previous research conducted in relatively large countries:

38

The context which I came from is different even in the literature even in what they have been studying, I put a new perspective to my supervisor and everybody who is working in this area. I think I have broadened this important area and saying why this has not been studied. And I want to research it. In that way, bringing in new ideas on your own knowledge is that is coming from outside I think that is the main advantage. The other thing is the way of doing things is also different from how they are doing. (Nada, Sep 7, p. 9)

In addition, in the following data extracts, Hai and Padma explicitly disagreed with the idea that their cultural and language background would somehow influence them to change the meanings of what they read from what the writer originally intended:

39

The author of the articles, I mean, can be native speakers or non-native speakers. They mention a thing, a word, and explain things in the context. But when we read the term, and when we use it in our own context, and it can be understood in different ways. But the, I mean, the meaning, I don't think the meaning itself changes. (Hai, Sep 18, p. 5)

Here Hai seems to suggest that, although the writer uses a specific context to explain the meaning of a certain abstract concept, and the reader's (researcher's) reflects his/her own research context as another instance of the same concept to understand it, the writer's intended meaning of the concept still remains intact. Meanwhile, after telling me that she sometimes experiences mental translation between English and her first language when she reads, Padma added:

40

I've never read any academic books in Sinhala [her first language] and all that. So even if I read books in English which have all theories in them...when it comes to talking with my husband, right?, whatever I read in English...I just ask him in Sinhala... Yeah, even though I read and get all in English...I transfer that to Sinhala ideas and then I talk to my husband in Sinhala in most of times... What we read, the same thing what is there... when you get it in Sinhala I suggest I don't see any difference to that meaning of the thing we read in English that we try to convert in Sinhala. Nothing is added more by doing it. (Padma, Jun 8, p. 8)

Thus, she regarded that the meaning of what she reads is the same regardless of whether she understands it in English or in her first language.

In fact, a number of data extracts presented in this chapter indicate the participants strove to understand the content of the target literature precisely as the authors intended (e.g., Extracts # 22, 23, 25 & 26 in Section 5.1.3, Extracts # 42 & 47 in Section 5.2.1 & Extracts # 76 & 77 in Section 5.2.3). Shu's following statement about how she would examine the validity of research-based articles seems to be one that represents this overall intention of the participants in comprehending the target literature:

41

You know once you know those procedures of doing research and methods and you would say, are their research questions and research methods and research objectives clear? And what methods have they used? How have they used their methods and how have they come up with the conclusion. (Shu, Dec 16, p. 4)

Overall, the accounts of the participants considered in this section seemed to suggest that academic knowledge that the participants developed through the LR did not consist merely of relativistic interpretations influenced by cultural, linguistic backgrounds. Rather, it seemed to involve more centrally understanding the concepts, theories and research reports as intended by the authors of the literature beyond such cultural influences. In fact, as the reference lists in the participants' research proposals reveal, undertaking the LR required the participants to deal with texts written by authors who seemed to be from a number of different cultures. Thus, if the participants had had to depend on their own cultural resources to understand culturally diverse texts, developing valid academic knowledge by undertaking the LR may not have been possible.

Section 5.2.1 following reports the SLA of the participants in relation to their approached to comprehending the meanings encoded in text that emerged from the findings of this section.

Summary and implications of Section 5.1

In Section 5.1.1, I firstly reported that the participants considered the undertaking of the LR as a central part of the overall process of developing their academic knowledge. Clarifying the meaning of undertaking the LR is important because the central agenda of this study is to investigate their SLA occurring through such knowledge development.

Some common epistemological characteristics emerged across different participants in their ways of approaching what they intended to know, such as the target literature or the areas of knowledge required in academic writing. The findings in Section 5.1.2 suggested that the intentionality and directedness of their minds enabled the participants to acquire academic knowledge while engaging in social processes. Section 5.1.3 reported the findings that suggested a possible hierarchy of the content of thought and language (procedural knowledge and linguistic systems) as separate entities that constitute academic knowledge. Lastly, in Section 5.1.4, I projected the possibility that the knowledge of the participants might emerge from accurate understandings of the meaning intentions of the authors of their target literature, despite the influence of their own cultural, linguistic backgrounds.

The cognitive dispositions and processes of the participants reported in Section 5.1 are significant in two aspects. Firstly, in Section 5.2 following, the SLA of the participants will be explored in terms of these dispositions and processes. In addition, in Chapter 6, they will be drawn upon for rethinking the mind, thought-language relation and knowledge, which are essential concepts in understanding second language learning and use.

5.2 The occurrence of SLA through cognitive processing

This section examines the SLA of the participants in relation to their epistemological dispositions and processes reported in previous Section 5.1,

which they applied in acquiring knowledge by carrying out the literature review. The subsidiary research question addressed in this section is:

2. *To what extent is the SLA of the participants understood in terms of their cognitive dispositions and processes characterised in reviewing the target literature and research planning?*

Section 5.2.1 examines the SLA of the participants occurring through their cognitive processes and approaches to understanding the notions, concepts or theories of other scholars. Next, Section 5.2.2 considers their SLA occurring through the processes of expressing thoughts in the form of academic text. Then Section 5.2.3 examines the extent to which the activation and enactment of criticality in undertaking the LR was related to the SLA of the participants.

5.2.1 SLA and seeking accurate understandings of the meanings intended by others

Previously, Section 5.1.4 reported that the knowledge that the participants acquired through the LR seemed not to solely consist of relative interpretations based on their cultural backgrounds. Instead, they sought to comprehend accurately the target literature as the authors originally intended. This section reports the findings about the SLA of the participants relating to their cognitive striving and processing to understand the target meanings embedded in texts as accurately as possible.

I begin with Padma. As she stated, the task of undertaking the LR required her to clearly understand her research-related concepts:

42

I...have got to...clearly identify concepts [that] he [her supervisor] sent me, it comes in this, network concepts, which I am discussing broadly, so that's it, so, I have made all this for that, so these are the ones that I have read (Padma Apr 19, pp. 2-3)

Considering another comment presented in Section 5.1.3 (Extract # 40), for her, clearly identifying concepts would appear to involve understanding them as intended by the authors, not changing or transforming their original meanings. However, achieving such accurate knowledge of the target literature was

sometimes difficult for her. In another interview, she admitted that “there have been many instances there some sentences were not that clear to me” (Padma, Jun 8, p. 9). Given this apparent knowledge gap, I started to presume that, when the meanings of what she was reading were not clear to her, it would be possible that she had not known some of the language systems (e.g., vocabulary, syntax or rhetorical patterns) that encode the meanings. Then her intention and effort to understand clearly and accurately such meanings may have pushed her to learn the particular linguistic resources that kept her from comprehending the contents. This inference seems to be supported by extracts from an email correspondence with Padma, in which I asked her if she had known a term that I found from one of her documents before commencing her PhD:

43

I: Padma...I found the term, “dyadic relationship” from one of your documents you gave me. Did you know its meaning before you commenced your PhD?

P: I learnt about the term when I started reading for my proposal and not before. Hope this helps. (Padma, email correspondence, Oct 30, 2012)

In fact, evidence that the participants, as PhD students undertaking the LR, were actively engaged in cognitive processing and effort to understand the target literature accurately emerged substantially from data. For example:

44

I will focus on my literature, each section, the number, justification, and academic terms. It has to be done. So first my literature review will focus on that. Then also finding the gaps why I and that all that, and then the whole section of literature review have little bit I'm sure how to go about detail. I really need to start. (Nada Apr 9, p. 9)

Therefore, as emerging from the case of Padma in Extracts # 42 and 43, it would be reasonable to consider that most of the participants experienced learning new academic English to a certain extent, while striving to understand the target literature precisely, What is significant here is that, this language acquisition occurring with input seemed to be facilitated by the recursively, intensive perceiving of meanings or texts that were not easily understood, for which the participants utilised several methods and strategies.

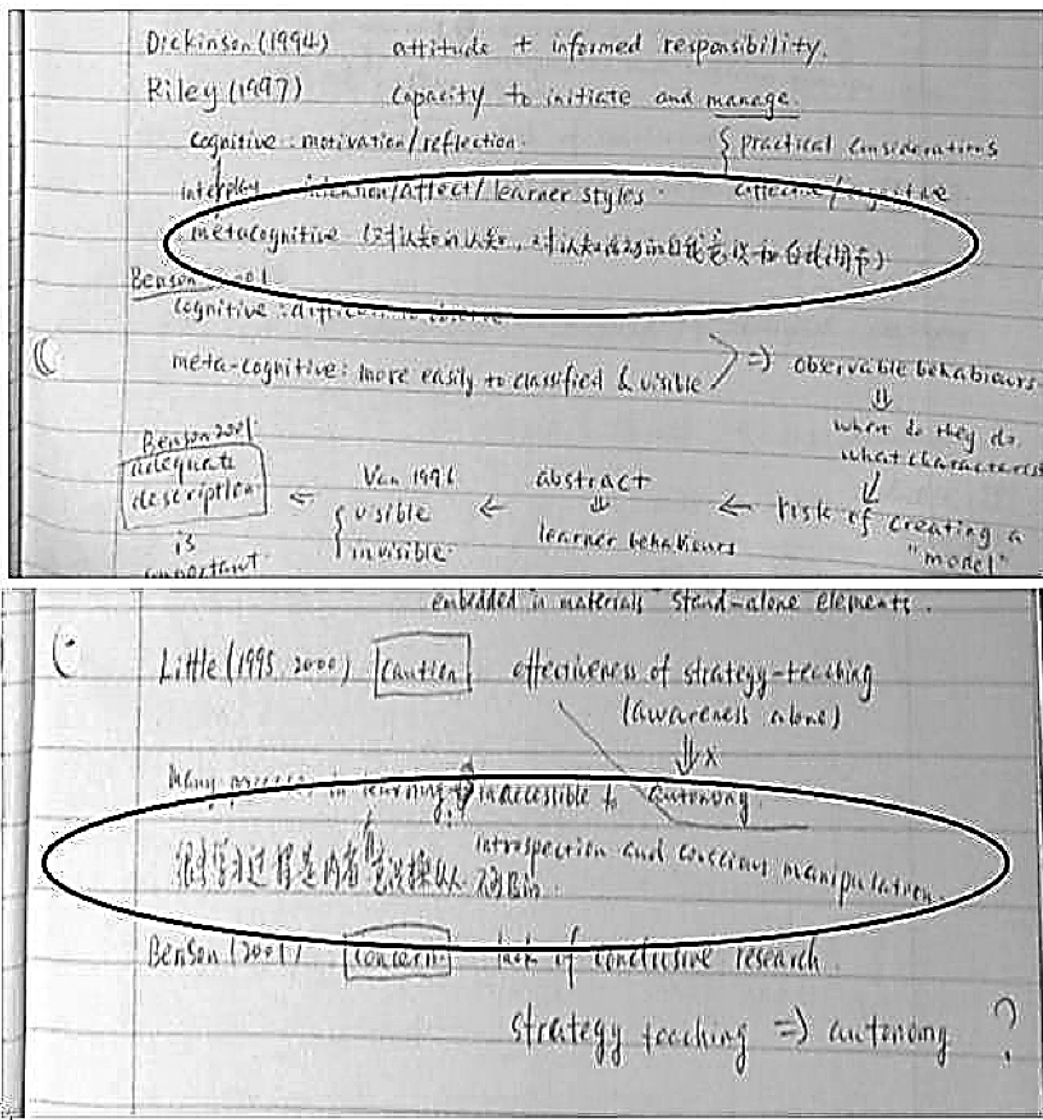
For example, as she shared in Extract # 25 in Section 5.1.3, Shu struggled with reading the target literature due centrally to the fact that it was written her second language. To tackle this problem, she wrote down and contemplated carefully difficult academic vocabulary words and phrases that hampered her comprehension of the target literature:

45

I still do a lot of manual work and that is reading and writing I mainly do handwriting, manual writing or in a word document, but I did find writing helps a lot with organising those ideas (Shu, Nov 12, p. 4)

After the interview was over, I asked her for a copy of her reading notes, Which I present in Extract # 46 as follows:

#46 Shu's manual note



On examining her reading notes, I found out that she occasionally wrote Chinese words. With my limited knowledge of Chinese characters, I was able to see that she defined, described or rephrased certain terms or concepts in Chinese. In an unrecorded conversation afterwards, she informed me that she looked up English words (or expressions) that she did not know from an English-English dictionary first. Sometimes, although understanding the meanings of certain words after dictionary consultation, it was not easy for her to associate the English words that she looked up with their meanings promptly. Then she wrote down the meanings of the words in Chinese to help herself to make connections between them and their meanings. By making this series of effort – note-taking, dictionary-consulting and occasional translation from English to Chinese, she seemed to comprehend her research-related concepts and ideas clearly. At the same time, she also seemed to engage with the process of taking up and remembering language resources that encode these concepts and ideas. That is, the creation and revision of her manual notes appeared to help her to attend iteratively to those academic vocabulary and expressions at her own pace for processing them, and consequently, may have led her to acquire some of those academic language resources.

In addition, the following data from Hai seemed to indicate her language acquisition driven by the focused, recursive cognising of meanings embedded in texts. As reported in Section 5.1.3, Hai also told me that, as a second language speaker of English, it is challenging and difficult to read and comprehend academic texts written in the language (Extracts # 22 & 23 in Section 5.1.3). Then, in her account below, she emphasised that she read the same materials a number of times as a way to develop an accurate understanding of what she was reading.

47

You know that actually when I read an important article, I have to read it about ten times. So if we are not hard working how can we understand articles. Yeah...I don't know... because I...read very hard to understand [the literature, but still] there is difficulty understanding...I told him [her supervisor] that if I am not hardworking I don't understand articles. (Hai Apr 28, pp. 12-13)

Then, I noticed that, in the same way that she read the same articles repeatedly seeking a precise understanding of them, she repeatedly listened to the

conversations with her supervisors that she audio-recorded, until she finally understood the conversations at the meetings clearly:

48

They (her supervisors) asked me to record the meeting, I think that it's quite helpful. Because, in the meeting, actually I couldn't understand everything so, because I cannot understand everything, so, it wasn't very helpful for me. Because if I understand what they are saying, I then, I then can ask them questions right away. But at home, I listen again, and again, and I say, ah, yes, that' what they expected me to do. But actually, in the last meeting they gave me quite useful advice to modify the model. (Hai, Mar 12, p. 6)

From her two accounts above, I began to infer that, while achieving a more complete understanding of messages embedded in spoken and written texts by iteratively returning to, and cognising them, she seemed to be acquiring some language resources used in encoding the messages, resources that she had not known before. This inference was underpinned by her comment at the interview on June 6th. She said, “[my understanding of the literature] got better because... one of the reasons that I told you that reading is difficult at the beginning, it’s because I didn’t have enough understanding of...the way they [the authors of the literature] explain” (p. 5). Therefore, she appeared to develop knowledge of the rhetorical patterns of academic texts while trying to understand the meanings of the target literature precisely. In addition, one of the summaries of the audio-recorded conversations, which she made to send her supervisors, also seemed to support this possibility of her acquisition of some language resources encoding meanings through recursive focusing on these meanings.

49: *A supervision meeting summary of Hai*

Meeting notes (04/05/2011)↵	
-	The supervisors explained the term “discourse of professionalism”: set of beliefs teachers hold for professionalism concepts. Sometimes a teacher can hold more than one discourse of professionalism and these discourses might be conflicted. CLEAR NOW↵
-	<u>Hai</u> ↵ needs to add paragraphs of different discourses of professionalism into her literature review. AGREE↵
-	Diary: not only about teaching experience but about anything that happens around the teacher on their teaching days. AGREE↵

In the summary, she wrote, “CLEAR NOW”, to indicate that she reached an understanding of the academic term “discourse of professionalism”. This acquisition appears to have been driven by a focused, recursive meaning clarification while listening to, and summarising the particular supervision meeting.

In fact, most of the participants audio-recorded, re-listened to, and made follow-up summaries of their supervision meetings, in order to understand their supervisors’ comments clearly. In doing so, some of them also appeared to experience the acquisition of linguistic knowledge. That is, as seen in Hai’s case, the audio-recording and follow-up summaries seemed to provide a condition for having sufficient time to process language that encoded their supervisors’ messages in a focused way. Then this focused, recursive processing of texts seemed to facilitate the acquisition of the language encoding the meanings. To support this interpretation, I present two more meeting summaries that Fadila and Shu provided to me as follows:

50: A supervision meeting summary of Fadila

Sup1	suggested the following:
Changes to the thesis statement	
I start with “I work..... my main area of teaching is..... Like this. After stating my personal experience of using ICT, can be say “I therefore begin to wonder whether use of ICT in my colleagues experience would be like, “I am also keen to know what my colleagues’ understanding of ICT how they use them in their teaching, their understanding of pedagogic practice”. Considering the fact that Maldives has good broadband ISP and using these facilities are common among people. And also want to seek whether the anecdotal evidence are based on evidence. This type of expression can make it clearer how my interest in this research is coming from. ”	

51: A supervision meeting summary of Shu

(By the way, Shu picked up the expression in the discussion “putting somebody on the spot”, looked it up after the meeting and acquired it. This is an example of the benefit of transcribing the meeting recording before writing up the summary. Thanks to Sup2 for that and Sup3 or “the nitty-gritty”)

Sup2 also advised not to use such loaded word as ‘truth’ without much thinking. It is good advice for future writing.

Shu needs to clarify the methodological terms as ‘case study’ ‘action research’ ‘qualitative method’ and so on, so as to describe the method accurately.

As acknowledged in their own summaries, Fadila learned some rhetorical patterns that her supervisor wanted to impart to her, while Shu learned some expressions that her supervisor used and realised the need to understand some methodological terms clearly. These language resources were initially given to, or heard by the two participants when they were having meetings with their supervisors. However, What made it possible for them to learn these resources seemed to be their own cognitive effort and processing to understand and take up these resources, which they engaged in while re-listening to and summarising (for Shu, even transcribing) their supervision meetings afterwards. That is, like Hai’s case, their language learning presented here seemed to be the result of repeated mental focusing on the language-meaning association of their supervisors’ utterances (texts).

As such, iterative perception of, or mental focusing on the target meanings by different means seemed to be crucial for the participants to develop their understandings of such meanings as intended by their producers, and subsequently to experience SLA. Moreover, for this intentional uptake of the target meaning seemingly conducive to their SLA, the participants also involved the reality of their research context that they perceived. This is exemplified in a narrative of Hai:

52

For experienced teachers, it (a particular theory) is said that their self-efficacy remains the same ... it is said in the literature. Maybe they need big changes in this saying. I read [another] book and they say that the nature of self-efficacy is dynamic, it fluctuates, it depends on context. I myself see that's true. For example, I'm an experienced teacher but the beginning of lesson I feel myself very self-efficacious because I prepared very well home for the lesson but then during lesson I see some student you know don't

want to learn or some you know my levels of self-efficacy goes down. Or, near the end of teaching period I become tired because it's too hungry. Now so it's down, so actually within a teaching period it changes, for me, it changes, For example I within the week I teach different classes with different students so my level of self-efficacy changes too. (Hai, Apr 28, p. 1)

In the extract above, Hai was trying to understand the concept of self-efficacy and its fluctuating nature by intuiting her own mental and emotional states in her teaching context. Such a mental act of sensing or perceiving a specific example or instance of the abstract concept appeared to be necessary for Hai to understand the concept itself and acquire the English term referring to the concept, which she has “not heard...before commencing [her] PhD degree” (Hai, email correspondence, Oct 30, 2012). In fact, more instances found in the data of study that indicate that other participants also drew on real events or things in the process of understanding the target literature (e.g., Extracts # 68, 69 & 71 in Section 5.2.3). Thus, possibly, the SLA of the participants that occurred through mental focusing and effort to understand target meanings would have involved perceiving or drawing on the reality to which these target meanings related to.

Overall, the participants seemed to experience SLA through striving to understand the meanings embedded in texts accurately, particularly through intensive, iterative focusing on the language-meaning association or the functions of language encoding such meanings. In addition, this meaning-uncovering processing, which appeared to be a driving force for their SLA, also seemed to involve the cognitive act of drawing on real events or things relevant to the target meaning.

5.2.2 SLA and thought-language operation in encoding thoughts

This section examines the SLA of the participants as it occurred through the related operation of thought and language in their knowledge.

After I initially perceived the ontological separateness and functional relation of thought and language in the knowledge of the participants, which took some time (see Section 5.1.3), I realised that they were in fact quite evident in their accounts. For example, Kusum mentioned:

53

When it comes to academic writing, probably, if I have difficulties, when I want to paraphrase something, for instance, I want to get the exact meaning then I may think twice. (Kusum, June 16, p. 10)

From her accounts, it was inferred that she decoded the content of the target literature, and then encoded it in her own words, which again seemed to indicate the ontological separateness of thought and language. In addition, it also seemed to emerge that there were a hierarchical operation between her thought (understanding of the literature) and language that she used for paraphrasing.

This ontological and operational relationship between thought and language emerged from some episodes that the participants shared, in which they illustrated the imbalance between developed thoughts and insufficient linguistic resources.

Hai stated:

54

[My supervisor] told me to look at the words [I used] He said that some words are not suitable, not English words, I invented (laugh). So I changed that a little bit. And then he said that if I can't express it more clearly I can use direct quote. So I think I should do that. (Hai, July 2, pp. 2-3)

This comment shows that Hai developed some ideas after reading the literature, but did not have adequate linguistic resources to express her thoughts, which then led her to resort to “inventing” some words. By changing the “words” invented by her into a direct quotation from the original source, she believed that she could resolve her problem, while maintaining her intended ideas for the wider context of her LR text. Similarly, Nada remarked:

55

I try to think about [my supervisor's] comments on my paper and she would say it will be better word for this so it is more scientific, more academic and now I'm thinking about certain words like ok...she was saying “don't write 'like ~' ok? Instead, [write] 'in similar smaller islands'”. Very small things, the meaning is the same but she wants me to use more general, academic language. (Nada, Sep 7, pp. 5-6)

In Nada's case, she used language that was too informal in expressing her ideas, which her supervisor pointed out, and subsequently advised her to use an academic style. As a result, she had to change informal language into academic language while still retaining the meanings (thoughts) that she intended. From the

cases of Hai and Nada, I perceived the hierarchical function of thought and language in their knowledge development arising from the fact that they had insufficient linguistic resources to encode their thoughts appropriately.

A similar reflection arose from a long, reflective narrative of Shu during her first interview about her struggle with writing in her second language, which I revisited. This interview was conducted before those with Hai and Nada, the extracts of which I presented above:

56

If it is your own language, once you get the idea you can start to write. You don't have to, I mean, with word selection, you don't need to think that much. I mean, you have some ideas and you just start to write everything just comes out. But with English writing, when you write, yes, you also get ideas but...it take you much longer time. For example, with preposition choice you need to think, 'Oh is it "in" or "at"?' ...I want my writing to be good writing, I don't want that much grammatical mistakes, so, then with that very simple language problem, it does not affect, I mean, understanding, I mean, meaning, conveying the meaning, it does not make that much difference on that. But it does demonstrate your whole master of the language, and I want my English to be good...[If] I have something that I'm not sure, I stop and look up...dictionary or refer to native speaker whatever you do it takes time so even if it is just short passage or short paragraph it just take much longer time. (Shu, Aug, 15, pp. 13-14)

The difficulty and challenge in expressing her thoughts in English that she shared here emerges from having insufficient linguistic resources to encode her thoughts effectively and appropriately. It is quite clear that the reason she wanted to improve her English competence for undertaking academic work is not that she cannot form her thoughts relating to her subject content. In actuality, she cannot express her thought as easily as she does in her first language.

The remarks of the three participants above seem to reveal that in their knowledge development thought and language were hierarchically operating, and their central concern was not having sufficient language resources for this thought-language operation. In addition to this, Tram's comments in Extract # 57 below seems to imply that expressing thought in language involves quite complex cognitive processes, which were not clearly articulated by Hai, Nada and Shu in Extracts # 54, 55 and 56. Tram stated:

57

I listed what they (researchers in the literature) have done into different themes, [such as,] what types of language anxiety, how it manifest itself in the classroom, in the interrelation between language anxiety and other social constructs...for example, passion or willingness to communicate. (Tram, Sep 15, p. 3)

According to Tram, the thought-language operation in undertaking the LR is not just encoding a thought into a word, phrases or sentence: it involves interrelating and organising thoughts into themes and expressing them in extended propose. Her idea can be considered in conjunction with some participants' comments reported previously in Section 5.1.3, which seemed to indicate that the language for expressing ideas in text means both thought-structuring procedural patterns and linguistic resources. In addition to this, earlier, in her previous interview, Tram also mentioned that the process of interrelating and textualizing thoughts was difficult.

58

When I write the literature review according to the themes, it's very difficult to separate the factors in an article [which is present to me] according to a researcher or author. It's rather difficult. (Tram, Aug 21, pp. 10-11)

This difficulty, and the need to learn how to organise and synthesise thoughts appropriately were also implied in Extracts # 4, 29, 30 and 32 already (see Sections 5.1.1 & 5.1.3).

Thus, in all of the accounts of the participants presented above, it firstly emerged that they found the need to improve their academic English from not having enough resources of the language to express thought. That is, these data led me to sense clearly the underlying need of the participant to improve their competence in using such resources as part of the hierarchical thought-language operative process. In addition, it was also importantly found that academic English that they needed to improve involved both procedural patterns of organising thought as well as linguistic resources.

Then the following data from Shu, Tram and Fadila reveal the actual efforts that they made to tackle the issue of not having sufficient procedural and linguistic resources for encoding their thought:

59

Sometimes some words are just too informal and I write and think there should be some academic writing style... For example, we need a lot of verbs like, somebody clarifies, somebody states, somebody claims... when I read... I know I need those words so... I highlight those words or put it or make my own vocabulary list and that helps. (see her reading note in Extract 66) (Shu, Dec 16, p. 6)

60

I can see some good ideas and from the literature. They are all saying that this one said this and the other one said opposite ideas, or yeah, similar ideas. I have the habit of trying to copy... I also write down the words, the expressions they used to argue report something yeah (Tram, Fadila & Tram, Aug 21, p. 8-9)

61

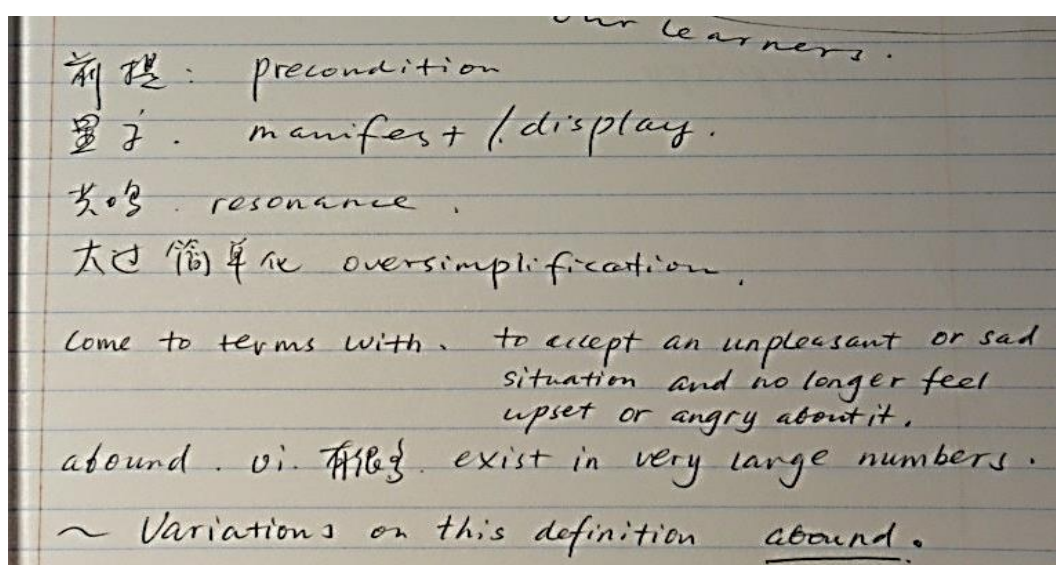
Actually good literature put those ideas yes when I was writing my literature I tend to check those things is this good or not when I find a really good interesting paragraph I used to copy their way to write (Fadila, Fadila & Tram, Aug 21, p. 8)

62

I: Do you think that now you have learned how to do the literature review for the last six months?

H: (quite a long pause) I don't know because actually... at the beginning I have a lot of difficulties in understanding what the literature review is about and I read....(long pause) some theses and learned the way to write a literature review (Hai, Sep 18, p. 2)

63: Shu's vocabulary note



In the preceding extracts, Shu, Tram and Fadila explained that they tried to attend to, and learn suitable academic language or procedural resources from the literature materials. In Hai's case, she appeared to have analysed text-organising conventions while engaging in the extensive reading of others' theses. Then she seemed to apply these rhetorical conventions to composing her own LR text. Evidently, for the four participants, adopting the systemic and rhetorical resources of academic English used by the authors of the literature was not copying the content of thought of these authors. This implies that, again, thought (content) and linguistic/rhetorical systems are separate areas in academic knowledge. In addition, as indicated in the other previous extracts in this section, the participants drew on linguistic/rhetorical resources to express their own thought, which, as stated previously, appeared to involve a hierarchical operation between extra-linguistic thought and systemic/procedural knowledge. In so doing, they might have acquired some – although not all – of the linguistic/rhetorical resources found from the literature and used in their writing.

Similarly, in the following conversation with Hai, her concept map and questionnaire seem to indicate that she was consolidating her vocabulary knowledge that she newly attained through similar thought-language processing:

64

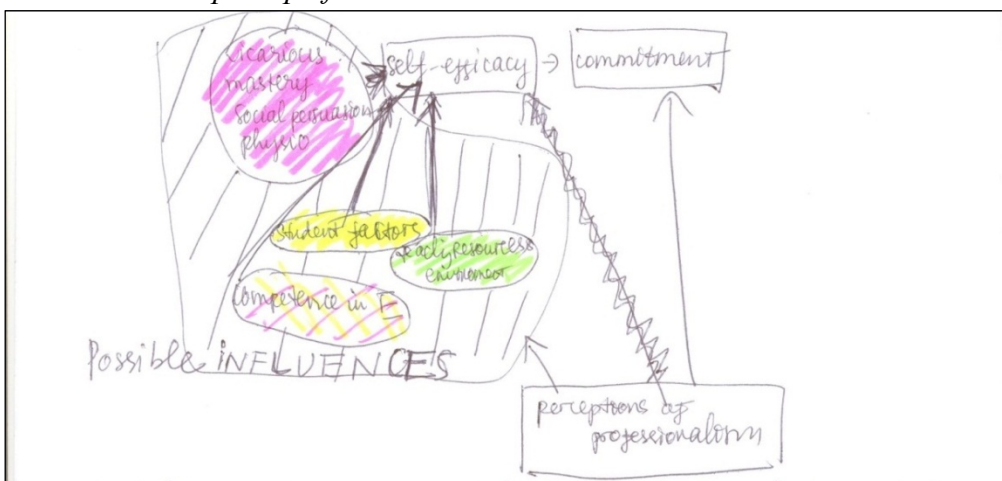
I : So, could you tell me one more time? You have met your supervisors...

H: Ok, so, um, actually, before this (two proposal drafts that she sent me previously), I have another one... and then, like the concept map I gave you. Before the concept map I have got one so I will send you. That stuff, and after, and this one goes along with the concept map, and this one, actually (turning pages)... let me see, no not this one, the concept map the one I sent you,

I : The first one.

H: Yep, but... I don't know. I have so many stuffs. (Hai, Apr 20, pp. 1-2)

65: The concept map of Hai



66: The questionnaire of Hai

Sections 2: Possible factors influencing teacher self-efficacy (30 items)
 Rate how true or false each statement is on a scale from 1 (definitely false) to 5 (definitely true)

Mastery Experience

23. I have always been successful with teaching English
24. I got high grades at my teaching college
25. I have always had a natural talent for teaching
26. I knew how to teach English well
27. I had successful teaching experience even with the most difficult students

Vicarious Experience

28. Seeing my colleagues teaching well pushes me to do better
29. When I see how my colleague solves a problem, I can picture myself solving the problem in the same way

1

30. Seeing other teachers do better than me in teaching pushes me to do better

31. I imagine myself working through challenging teaching problems successfully

32. I compete with myself in teaching English

Social Persuasions

33. My colleagues at university told me that I am good at teaching English
34. People have told me that I have a talent for teaching
35. My family members have told me what a teacher of English I am
36. My students have told me that I'm good at teaching English
37. My colleagues like to work with me because they think I'm good at teaching English

Physiological State

38. Just being in my teaching class makes feel me stressed and nervous
39. Teaching English takes all of my energy
40. I start to feel stressed-out as soon as I begin teaching English
41. I get depressed when I think about teaching English
42. My whole body becomes tense when I have to teach English

As reported previously in Section 5.2.1, the term of self-efficacy was new to her, and she appeared to clarify and learn its meaning through linking it to a certain mental state of Vietnamese English teachers that she had already perceived and planned to investigate. Then, the data above show that she actually applied this new construct and its sub-constructs to identify the same mentality, for which she produced a number of materials, such as the concept map and questionnaire presented above. That is, she seemed to engage with the cognitive processing of encoding her thought of a phenomenon that she had experienced drawing on academic concepts (self-efficacy and its sub-categories) that she had newly learned. Through this processing, she appeared to be developing a more consolidated knowledge of those academic vocabulary words.

Similarly, Fadila also seemed to learn some text-organising patterns of academic English through a mental process centrally involving hierarchical thought-language operations:

67

At the first draft, I prepared, it was like, stating and stating and explaining and explaining. So instead this, I put all the similar ideas together... [I was] looking at some complexity of ICT integration process. If there are many research already mention about this complexity, I need to put them together. ... What I have done in literature review, they were around fifty pages of literature I did at the first draft, but after I finished my full research proposal, it's only five pages. (Fadila, May 26, p. 2)

Over the provisional enrolment period, Fadila professed a marked improvement in her writing through reflecting on feedback that her friends and her supervisor offered when she already had developed content knowledge of the target literature for her LR text, but did not know how to organise and structure it.

Through the accounts of the participants above describing the process of creating their research proposals including the LR sections, a pattern appeared to emerge. The acquisition of new procedural and linguistic knowledge seemed to occur when the participants looked for necessary rhetorical/systemic resources in order to express their own thoughts and ideas. That is, these data appear to provide evidence for the hierarchical relationship and operation between thought and language and the possibility of SLA through this relationship and operation.

5.2.3 Critical thinking and SLA

Some scholars in the extant literature of applied linguistics have suggested that critical thinking is Western-cultural thinking embedded in English language. Thus, second language speakers of English may have difficulty with critical thinking and they need to learn critical thinking while learning the language (see Chapter 3, Section 3.2.4). This section examines the relation between the participants' critical thinking – making evaluative judgement about the object of knowledge – and their acquisition of academic English.

Unlike the belief in the extant applied linguistics literature mentioned above, the data of the study revealed that the participants, all of whom were from non-Western cultures, were critical in reviewing the literature. For example:

68

When I read the article about language anxiety in speaking, Woodrow says that Vietnamese students are quite different from other Confucian heritage students from Korea, China or Japan, and according to her, Vietnamese students are not anxious but very confident in speaking. And she said we are something like westerners I think it is very funny (laugh) I don't agree with her. I came from Vietnamese context and I think maybe she's wrong or she is overgeneralising. (Tram, Sep 15, p. 5)

69

In the literature, there are standard instruments that I may have to use. My supervisor is pushing me to use them, forcing me. That's ok, that's better to use because people really value these instruments so I can use them for comparison but some of them are not really useful. For example... I'm thinking what would be then like several steps of stairs in these small islands, but I haven't been able to think of any. (Nada, July 7, pp. 5-6)

70

One time with my model, my second supervisor wanted me to add some elements of power to it. But I felt that it should not be added...I thought it is not going to be relevant but I didn't say anything at that time. I went back home, and I read the literature again, and then, I was convinced this is not coming here. (Padma, Aug 10, p. 8)

71

I: What I really want to know is, when you came here (to the university) first, you told me several times that actually you feel like you already know [what is in the literature] through your experiences as a teacher
S: Yes, that's true.

- I : [Then] is it like, you already know what is happening there but when it becomes...academic research, you need some...backing up literature [for what you have known already]?
- S: Sometimes I feel, ok, it is a feeling which is hard to describe. For example...I think my idea is original because I got the idea from my own teaching before I read any literature...I can't use it as my idea because someone else has created or they have put the ideas into literature long long time before I did it...
- I : [Then] when you read two different arguments or opinions, one is very much matching with your experience and then the other is not, do you naturally agree with...
- S: Of course of course if it is really something you gained from your experience because you experience that oh it is so true, of course very naturally I may just turn to the side which I have experienced. (Shu, Jan 11, 2012, p. 5)

In Extracts # 68 and 69, Tram and Nada expressed their evaluative opinions about the validity of a research finding and a data collection instrument when applying them into their own research contexts. Then in the comment of Padma, it appears that she checked whether she would need the concept of power for her research against her overall conceptual framework (model), and concluded that the concept was not relevant to examining her research topic. For me, the critical attitude of Tram, Nada and Padma toward the target literature or others' opinions exhibited in their accounts appeared to be a natural reaction arising from finding out mismatches between certain publicly-reported notions and what they had perceived. That is, for the participants undertaking the LR itself was an academic practice within their English-medium academic context. However, their critical attitude itself, with which they considered the validity and necessity of the target literature, seemed to emerge as a natural disposition that they would activate in their day-to-day living, rather than as the application of a particular Western way of thinking. This possibility of critical thinking – assessing the value of the target literature – being a natural disposition seemed to be more clearly evidenced in Shu's remark in Extract # 71. In the extract, it was quite obvious that she naturally assessed the truth value of theories from the literature based on her teaching practice.

The findings of the participants' engagement with critical thinking presented thus far emerged from the interview data in which they and I were not even discussing

critical thinking as a topic of our conversations. Then in an extract from Hai, she answered my question about how she could be critical:

72

I think that when you're critical, for example, for me, there are four self-efficacy [theories]. There are a lot of opinions about self-efficacy I read. Yeah, I think that a lot of articles, a lot of researchers write about that one and they have different opinions. When you're critical you choose the ones that are suitable to your own context your own aims of your study. (Hai, July 2, p. 4)

Thus, the ways of being critical that Hai described above appeared to correspond to the critical mind-set displayed by Tram, Nada, Padma and Shu in Extracts # 68 to 71. Here an important point that needs to be emphasised again is that the participants' attitude and behaviour of critically assessing the target literature appeared to be an element of their human nature, rather than what they had attained through disciplinary practices in English-medium academic contexts. This inference is based on the fact that there seems to be a considerable resemblance between the ways of the participants being critical presented here and those of any human beings engaging in evaluative thinking for their daily concerns, such as shopping, choosing a job, who to have as friends, or even what to eat and drink for health. In addition, the naturalness of the criticality of the participants is, however, not to imply that their critical thinking was impulsive or irrational. Rather, while reading Extracts # 68 to 71 carefully and iteratively, I realised that the participants largely involved rational and logical reasoning to judge the target literature critically. For example, Tram suggested the possibility of overgeneralisation in Woodrow's argument about Vietnamese English learners. Nada pointed out the inadequacy of asking questions about climbing staircases to her potential participants who live in a context where there are no or very few staircases. The comments of Padma, Shu and Hai also indicated that they analysed the target literature in terms of its operability for and applicability to their own research projects.

Meanwhile, unlike other participants, at her first interview Fadila expressed the view that she was struggling with making a critical literature review. Apparently, some of her comments on the day appeared to be contradictory to the overall

finding that the participants' criticality seemed to be a natural human disposition. For example:

73

I started thinking about, forming my literature review. I started thinking I should be much more critical than I was...I think, how to form this voice, your voice into your literature, but still I find it difficult to deal. When I, when I talk about my literature with my supervisor, she has given me an idea, of course, she has stressed to be critical but, how was not really explained. How you are going to be critical. And what are the strategies that you can follow in your writing...I was thinking, how am I going to be critical, I was reading and reading, but I found a lot of ideas from different research, but becoming a critical reviewer, is I think still difficult, for, in my case, it's difficult, I don't know how. (Fadila, Apr 13, pp. 8-9)

Her narrative shows that Failda felt unaware of how to be critical in writing her LR text. By confronting her case, seemingly diverging from those of the other participants, I felt it necessary to clarify if her feeling of not knowing of how to be critical actually signalled her inability to be critical. I began to carefully examine the reason why she thought she was not able to be critical. Eventually, I realised that this was in fact embedded in her comment above: her inability to make a critical literature review at that time was directly related to the fact that she did not understand what the concept of critical thinking means. In her account, she actually made a point that she would be able to be critical if the meaning of the concept was clearly explained to her. What was very interesting is, at the same interview throughout which her central concern was not being able to be critical, she engaged with a type of thinking as follows, which could be considered as critical thinking:

74

There are no enough... students who just get in the university, that they are not given full induction of these kinds of things [including how to be critical], because, ok, I might know from you, one thing, from my friend, another...but it's...in my point, officially it should be given from the university.... I think, when I first come, I should be given those things right? (Fadila, Apr 13, p. 11)

Thus, she was in fact critically evaluating the system of the university where she was undertaking her PhD, in terms of not providing sufficient input and support to new PhD students. For me, this seemed to indicate that she engaged with critical thinking even though she did not associate her actual critical thinking with the

term critical thinking. In other words, she was critical naturally or implicitly, but by not knowing what the concept of criticality refers to, she thought to herself that she was not able to be critical. Then, only one and half months after the first interview, she appeared to have undergone considerable change from the previous two interviews. She looked much more confident than before, saying, “my next writing...all the literature review chapters will be much better than what I have done earlier” (May 26, p. 2). I asked her if she had solved the issue of not knowing how to be critical:

75

I: The question you were asking [one and half months ago] was what it means by being critical or by having your own critical voice. What do you think about that now?

F: Yeah I remember telling you that...Later when I started reading it was completely different from the way I read earlier because, [before,] I was reading to get information rather than criticising or thinking about what I want to. But I think later...I started to think yes I might not agree sometimes ... now when I read I become very critical. [When] I don't think it's truthful for Maldives... I am changing my sentence. I think that is how now I understand how I can be critical when I write. (Fadila, May 26, pp. 6-7)

The drastic change in her self-awareness about her ability to be critical did not seem to indicate that she had not had the ability previously, but attained it for such a short time period. Rather it would be a more realistic interpretation that she now came to understand the concept of criticality more clearly than before, and realised that it was an ability that she already exercised.

Overall, it seemed to be quite evident that the criticality of the participants of the study was not what they had to learn in the process of developing their competence in using English, but it seemed to be part of their human nature, which they had been engaging with, even before understanding the term of criticality clearly. Nevertheless, improving competence in using academic English appeared to be still very important in undertaking a critical review in the English-medium context. Firstly, Hai and Tram stated:

76

My supervisors expect me to be critical in reading. But you cannot be critical when you don't understand the articles...Ok writing, I think if I understand their (the authors' of the literature) intentions, I can, I can write in my own words. not very good, not very beautiful writing, but express my

own idea, That's what I worry. I don't, you know, how can I be more critical when I don't understand [the] real intention of [an] article. (Hai, Mar 13, p. 18)

77

When I read some articles, I don't really think I can understand correctly or not. Yeah. So it is just from my understanding but I don't know how exactly it is if it is...if I have ideas I think it's easy to write not very difficult but just I can't understand it, or it is not very clear to me, [then] I just still can't write. (Tram, Aug 21, p. 11)

Here Hai and Tram clearly pointed out that a reason for them to find difficulty in making a critical review of the target literature is that it is not easy for them to develop an accurate knowledge of what they read, because such accurate knowledge is the basis for assessing values of the target literature. As presented in Sections 5.1.3 and 5.2.1, and as indicated in Extracts # 76 and 77, the participants considered that this difficulty in understanding the meanings intended by the authors of the literature arose from not having sufficient linguistic/procedural resources as second language speakers of English. Thus, the intention to evaluate the target literature based on a correct understanding of it would have driven them to acquire new linguistic/procedural resources. As such, for them, becoming more capable in critical thinking by acquiring new resources was not because critical thinking is embedded in English language, but because critical evaluation of the literature requires an accurate understanding of it, for which a developed competence in using academic English is a prerequisite.

In addition, as was found in Section 5.2.2, in general the participants needed to learn new linguistic and rhetorical patterns to express the content of their thought appropriately in their academic context. This overall thought-language relation and operation in their SLA may have also applied to the area of expressing critical thinking appropriately in their LR texts. That is, to encode their critical thinking appropriately in their academic context, they might have developed the way to textually enact criticality. The interview data of this study did not clearly provide evidence for this. However, from the analysis of the final LR drafts of five participants, Hai, Nada, Mubin, Tram and Fadia reported in Section 5.4.1, it emerged that, to a certain extent, these participants expressed their critical thinking appropriately in their English-medium academic context by means of

using certain rhetorical patterns. This seemed to indicate the possibility that these rhetorical patterns required for enacting criticality may constitute the part of the resources of academic English that the participants acquired through their thought-language cognitive processing.

Summary and implications of Section 5.2

Section 5.2 explored the extent to which the SLA of the participants was understood in relation to their cognitive and epistemological processes and approaches to undertaking the LR and planning their research projects. The findings presented in Sections 5.2.1 and 5.2.2 suggested that the cognitive processes and approaches in understanding the target literature accurately and expressing their thoughts clearly seemed to be conducive to their attainment of linguistic knowledge. Then Section 5.2.3 examined the criticality of the participants as second language speaker of English and its relevancy to their acquisition of academic English. The need for critically evaluating target literature based on a developed knowledge of it and expressing criticality appropriately seemed to motivate the participants to develop their academic English competence. However, their criticality seemed to be an element of human nature that the participants already had exercised, rather than what they had to learn as part of their acquisition of English.

5.3 SLA and the communities of the participants

Section 5.3 seeks to examine the involvement of the participants' communities in the process of their SLA. The subsidiary research question addressed in this section is:

3. *To what extent is the involvement of the participants' communities facilitative of their SLA?*

Firstly of all, the meaning of communities in the present study should be clearly indicated. As revealed throughout previous chapters and sections in this chapter, investigating interpersonal dynamics or social or political issues possibly involved in second learning and use is not the central concern of this study. Therefore existing frameworks for communities, such as discourse communities (e.g., Swales, 1990, 2004) and *communities of practice* (Wenger, 1998), most of which

were developed for sociocultural aspects of language learning and use, seem not to be adequate for my study. Therefore, I came to have a somewhat *ad hoc* definition of the communities of the participants as the group of people who appeared to contribute to their SLA in different ways, including academics in their immediate context, and literature authors or even friends or family members.

Firstly, as indicated in the findings in Section 5.2, the academic communities of the participants provided the participants with their rhetorical and linguistic knowledge (as well as subject content knowledge) as the resources for their SLA. The authors of the target literature were the ones whose knowledge constituted the primary sources of the linguistic and procedural knowledge of the participants (e.g., Extracts 59, 60 & 61 in Section 5.2.2). In addition, their supervisors also appeared to transmit rhetorical and linguistic resources to the participants (e.g., Extracts # 50 & 51 in Section 5.2.1). In this regard, here I present one more extract from the account of Padma. At one particular supervision meeting, her supervisor informed her of how to structure the LR text:

78

He (her supervisor) called it brainstorming, because he was asking questions and I was asking questions...he actually helped me to structure it (her LR text)...ok, this is how he showed to structure it. And actually, he introduced triangle downward triangle to me and he said you should first talk about general theory and then go down to you specific and that's what he advised, and you're synchronising your material. (Padma, May 13, p. 3)

In addition, other people, such as family members or friends (particularly other PhD students) also offered their own rhetorical and linguistic knowledge to the participants. For example:

79

Last time I told you that I prepared my literature review, because even [for] that I actually got some advice from my husband. I was, I kind of started from the introduction and asked him what kind of things I should put it on, and he's telling from introduction. It is very very, very positive thing for me, my husband being around...all the advice I get from my husband rather than my supervisors (laugh). (Padma, May 13, p. 1)

Secondly, people in the academic communities of the participants checked, revised and validated the linguistic and procedural knowledge of the participants. Usually the people who provided such feedback imparted their own linguistic and

rhetorical knowledge to the participants simultaneously. This, for example, is indicated in the comment of Fadila and her LR draft on which her friend provided his feedback as follows:

80

I : Now you submitted your first draft of the literature review right?

F: yes.

I : could you tell me how you have done your literature review?

F: I think, especially last two months I got a lot of feedback from my friends, on my literature review, particularly from some friends in my room. After they read that they've given me really really constructive and helpful feedback how to change literature in a in a proper manner (Fadila, May 26, p. 1)

81: An LR draft of Fadila with her officemate's written feedback

such as teacher education (Chitiyo & Harmon, 2009). ^{for example, in the} Some developing countries are ~~seemingly~~ ⁱⁿ attempt to understand how ICT can be integrated in the context of particular regions and countries. ~~The example of and analysis could be the study in~~ South America, Sub-Sahara Africa and South/East Asia reported that these developing countries must implement the necessary structural factors in order to reap the positive externalities that ICTs are capable of achieving (Mamaghani, 2010).

The overreaching conclusion in the above reviews is that both developing and developed countries have invested great amount of expenditure in ICT integration in education and initiatives has been undertaken for better integration in both developed and developing countries. However, the outcome of ICT integration is still doubtful and not promising.

You need to distinguishly compare and contrast ICT in developed and developing countries.

ICT Integration in Teacher Education

Obviously, the supervisors of the participants performed the central role in the second aspect of the involvement of their academic communities in their SLA. This is indicated in the comments of Hai, Nada and Tram, and Hai's LR draft on which her supervisor provided his feedback:

82

I think that the feedback for the one (her literature review draft) is, first thing is, he (her supervisor) told me to look at the words he said that some words are not suitable, not English words I invented (laugh) so I changed that. (Hai, Jul 2, p. 2)

83

[My supervisor] would say it will be better word for this so it is more scientific, more academics, and now I'm thinking about certain words like, ok, I have written in one of the sentences it is all the populations in Maldives it is increasing like other small island in the UN. And she was saying don't write 'like' ok instead , 'in similar smaller islands' ... She wants me to use more general, academic language. (Nada, Sep 7, p. 5)

84

I : How about language feedback? Did she (her supervisor) give you language feedback correcting your grammar mistakes or...

T: Er, for example um yeah just a few, a few grammar mistakes. For example, she just say syntax problem... Oh I used one word that is not suitable and she just tried to change the word for example I use the word primary but she said oh primitive but she said no that is preliminary. (Tram, Aug 21, p. 10)

85: Written feedback from Hai's supervisor on her LR text

<p>teachers (in) Eastern and Western (contexts). For example, teachers in Australia and the U.S considered enthusiasm, rapport, and student-centered aspects to be the most essential but teachers in China and Hong Kong identified lesson planning, clear explanations, and teacher-led aspects to be the most important. In terms of language teachers, the research literature also suggests that there is no single, accepted definition of effective foreign language teaching and <u>the</u> effective foreign language teachers subscribed to by the teachers themselves (Bell, 2005). The secondary foreign language teachers in the United States in Bell's study agreed on some categories such as qualifications, the importance of small group work, selected strategies in foreign language learning and assessment but <u>disagreed</u> on learner differences. In Israel, the teachers' command of the target language, their ability to organize, explain and clarify, their <u>abilities</u> to sustain learners' interest and motivation were perceived to be important (Brosh, 1996). Clearly, given the fact that every teaching-learning situation is unique, and that subjects differ from one another, teaching behaviors that are considered effective in one setting may be considered less effective in another. ↵</p> <p>Despite the variety in the definitions of effective teaching and effective teachers expressed by the teachers who perform different component tasks in different contexts, there is at least an agreement <u>among different researchers</u> on the general qualities of effective teaching such as <u>the setting work at an appropriate level of difficulty</u> (Kyriacou, 1997; Murray, 1991), and an agreement on the fact that teachers' views of effective teaching and effective teachers affect their teaching behaviors, teaching styles, instructional pedagogy and learners' outcomes (Ghaith & Shaaban, 1999; Zhang, 2009) among different researchers. This present study will not focus on the agreement or disagreement of the teachers. More importantly, the teachers' views of effective teaching and effective teachers will contribute information for their cognitive processes <u>in relation to the development of self-efficacy beliefs</u>. ↵</p>	<p>메모 [cs8]: judging on whether they were from?.</p> <p>메모 [cs9]: Clarify this last sentence.</p>
--	---

Thus, the involvement of the academic communities of the participants contributed to their SLA in two ways: the spoken and written texts of their community members provided the rhetorical and linguistic sources for their SLA: some of these community members also checked, corrected and validated the participants' developing knowledge of academic English. In these two ways, the academic communities of the participants played an important role for the SLA (as well as the overall academic knowledge development) of the participants.

However, despite these contributions of their academic communities to the SLA of the participants, as the findings in Section 5.2 suggest, in essence, the SLA of the participants appeared to be driven centrally by their own intensive cognitive

striving and processing. This interpretation of their SLA as an outcome of their own cognitive processing seems to be supported by the accounts of the participants following, which evoked the question of whether other community members provided them with step-by-step guidance for their SLA:

86

I : Did you get any language feedback from anybody?

P: Language feedback...

I : For your final writing

P: For final, yeah, I, in fact today my supervisor pointed out three spelling mistakes.

I : Ok three spelling mistakes...you didn't receive any feedback from anybody

P: You mean proofreading

I: Proofreading

P: No, no, no. (Padma, Aug 10, p. 15)

87

I : Did you get any language feedback from your supervisors?

M: No, they said my writing was, I mean writing a scholar paper, academic paper is hard and it takes time to adjust my writing to academic argument or style. But my writing in general sense is alright.

I : You didn't go to the learning support centre

M: Nope, nope, nope. (Mubin, Jul 5, p. 4)

88

I remember that my chief supervisor telling me that, that was only one comment that I got. He said that, do you like to use adjectives? For instance, “enormous”, you know. He said, you don't need to use a lot of “enormous”...He said that, try to minimise adjective...I like to make it, you know, I wanna make it rich, but he said, you don't have to continue writing (Kusum, Nov 30, p. 8)

89

I only have two [people] with regard to literature review. One is my supervisor, one is K (a person in the learning support centre), Both of, um, K has given me, idea, I think, how to form this voice, your voice into your literature, but still I find it difficult to deal. When I, when I talk about my literature with my supervisor, she has given me an idea...I think still difficult, for, in my case, it's difficult, I don't know how, I don't know, because I had never, from any students, because they don't talk much about their literature [review]. So ideas about how to form literature is still, really needs to be explored about, and to conduct workshops, I think it's important to conduct workshops or so for us, PhD students form their literature. (Fadila, Apr 13, pp. 8-9)

As seen in Extracts # 78 to 85, the participants were certainly helped by other people in relation to improving their academic writing. However, considering the data immediately preceding, this help still might be distant from regular, careful guidance. In fact, the feedback that Fadila received from her friends (i.e., some other people besides supervisors) that I reported with Extract # 80 was a quite exceptional case, which were not found in the data from the other participants. Besides, even the help that Fadila's friends offered was not a consistent, carefully planned assistance, but a series of occasional events initiated by Fadila's own request. The important point here is, although not regularly taught or guided by others, the data of the study indicated that the participants were developing their knowledge of academic English. This, again, made me consider that the SLA of the participants was emerging from their own cognitive processing and effort, rather than from interpersonal processes with other people. This issue will be discussed carefully in Chapter 6, Section 6.3.1 that clarifies the mechanisms of the SLA of the participants.

Summary and implications of Section 5.3

Section 5.3 reported the findings indicating the extent to which the involvement of the academic communities of the participants was facilitative of their SLA. People in the communities intentionally or incidentally shared their own rhetorical and linguistic knowledge with the participants as the sources for their SLA. They also checked, corrected and validated the linguistic and procedural knowledge of the participants to a certain extent. Nevertheless, the findings suggested that the involvement of their academic communities might not be what centrally drove the occurrence of their SLA.

5.4 Extra-linguistic elements of academic English competence: The use of genre knowledge

This section reports the findings from an analysis of the LR sections of the final proposal drafts of five participants, Hai, Nada, Mubin, Fadila and Tram. From the interview data, it emerged that thought and language elements of academic knowledge seemed to be two separate entities that appeared to operate hierarchically, and that the SLA of the participants appeared to occur through such a hierarchical thought-language operation (Section 5.2.2). In addition, it was

also found that the participants were aware of the importance of knowing how to organise and structure their thought appropriately for creating academic text (see Sections 5.1.3 & 5.2.2).

Reflecting on these findings, I came to think that clarifying elements of extra-linguistic knowledge and ability which were involved in their learning and use of academic English would be important to understand the nature and scope of their SLA. Thus, for the analysis, I incorporated into the analysis frame Bruce's (2008a) constructs of social genre (SG) and cognitive genre (CG) (see Chapter 3, Section 3.2.3), which he suggests as essential elements required to composing prototypical English academic texts. Then I sought to clarify in what ways genre knowledge is a critical element of competence in composing academic prose by examining both developed and weak areas of the LR texts of the participants in the light of the framework (see Chapter 4, Section 4.4.3 for the analysis of the final LR texts of the five participants). Each of Sections 5.4.1, 5.4.2 and 5.4.3 therefore reports aspects that suggest the importance of thought structuring genre knowledge.

The subsidiary research question that this section addresses is:

4. *In what ways is the use of prototypical thought-structuring patterns important and (thus) is indicated as part of academic English competence?*

5.4.1 Achieving textual coherence

Overall, the LR texts showed that having awareness of an LR text as a SG, and having the knowledge of and ability to use English academic CGs are essential for creating an LR text considered as appropriate and coherent in an English-medium academic context (Bruce, 2008a). Table 5.1 presents the numbers of sections headings, instances of metatext in the final LR texts, and CGs of the participants, which indicate the extent to which the participants implemented the elements of the LR text as a SG and those of CGs.

Table 5.1: The numbers of CGs, section headings and instances of metatext

Participants	Number of words	Number of paragraphs	Number of headings	Number of instances of metatext	Number of CGs
Hai	6039	37	10	x	2 (1 Explanation & 1 Discussion)
Nada	6258	42	4	4	3 (2 Reports & 1 Discussion)
Tram	4696	29	9	3	13 (3 Reports, 7 Explanations & 3 Discussions)
Mubin	4193	46	18	2	3 (2 Reports & 1 Discussion)
Fadila	2604	22	5	3	2 (1 Report & 1 Discussion)

*Tables and figures were excluded from the word count.

Firstly, the use of section headings appeared in the LR texts of all the five participants, and metatext was found from the LR texts of Mubin, Fadila, Tram and Nada. Extracts # 90 and 91 present the titles of the section headings of Mubin’s LR section in the content table of his research proposal and a segment of metatext from Nada’s LR text respectively.

90: Section headings of the LR text of Mubin

2. Literature Review	7
2.1 Supply Chain Security	7
2.1.1 The Security threat	8
2.1.2 Reactions to the threat	8
2.2 Summary of the broader areas covered by Supply Chain Security	14
2.3 Routing and Simulation modelling	15
2.3.1 Relevant existing literature summarised.....	16
2.4 The Research gap.....	16
2.4.1 Research gap on Supply Chain Security.....	16
2.4.2 Research gap on routing.....	17
3. The Research Model	18

91

The research questions (see section ‘statement of research questions’ of this proposal) of this study arose from an interest in understanding the existing practice of ICT use in teacher education programme. This section provides a review of the literature relevant to this perspective along with an understanding of ICT, ICT integration in teacher education, factors affecting ICT integration in teacher education, teacher education for effective pedagogical practice with ICT, and finally the technological pedagogical and content knowledge (TPACK) framework. (A meta-text from Fadila’s final LR section, p. 9)

The use of section headings and metatext seemed to indicate that the participants’ knowledge of their LR text as a social genre (a section of a research proposal), which appeared to help them to incorporate necessary content and organise it appropriately. That is, their use of section headings and metatext seemed to allow their LR texts to meet the expectations of readers in academic contexts about what a LR section would cover to a certain extent, aiding them to comprehend the intentions and purposes of their LRs. For instance, the section headings informed me as a reader of the areas that the participants were planning to investigate, and concepts and theories that they sought to use as the conceptual frameworks of their research studies. Then the segments of metatext provided me with more specific ideas about the information that I noticed from the titles of the section headings.

In addition, Extracts # 92 to 96 following present the writing of the five participants in which the participants achieved CG elements– prototypical cognitive or rhetorical patterns that commonly appear in academic texts (Bruce, 2008a).

92: A Discussion CG from the final LR text of Hai

Discussion (not prototype)	
<p>Many researchers support Bandura's point of view that self-efficacy is best enhanced by the combination of four sources of efficacy information but it is most directly influenced by mastery experiences. <u>However</u>, some researchers disagree with Bandura (1997) that mastery experiences are the most powerful predictors and all four sources contribute to the construction of self-efficacy.</p>	<p>Concess Contra</p> <hr/> <p>Concess/ Contra</p>

y ?	
<p>Zeldin and Pajares (2000) used a narrative approach to <u>explore</u> the sources of self-efficacy of women who worked in careers traditionally dominated by men. Although this study did not explore teacher self-efficacy, it is one of the first research studies which was carefully designed to <u>challenge</u> the four sources of efficacy information suggested by Bandura. The study reported <u>that</u> the sample women relied most extensively on the encouragement and modeling provided by people around them. The verbal persuasion and vicarious experiences provided by the people who played critical roles in their <u>lives strengthened</u> these women's self-efficacy in selecting and continuing their careers. The women in the study provided evidence <u>that</u> mastery experiences were not always the most influential sources of self-efficacy. <u>Although</u> Zeldin & Pajares (2000) did not provide an explanation for this conclusion which differed from that of Bandura (1997), maybe the cultural contexts where these women were living in (they worked in careers traditionally dominated by men) and/or the ways they interpreted the efficacy information in those contexts (they relied largely on the encouragement and modeling) had led to this difference.</p>	<p>M/P</p> <p>Concession Contraexp</p> <p>A</p> <p>M/R</p> <p>A</p> <p>Concess Contra</p> <p>R/R</p>

*A= Amplification, B=Bonding, Concess/Contra= Concession-Contra-expectation interpositional relations, M/R=Means-Result, M/P=Means-Purpose, R/R= Reason-Result and GC=Grounds-Conclusion interpositional relations

93: A Report CG from the final LR text of Nada

<p style="text-align: center;"><i>Report (fairly prototypical)</i></p> <p>In the Asia Pacific region, most of the countries have shown advanced demographic transition and associated population ageing. Indeed some countries have reached below-replacement fertility levels, coupled with increased life expectancy, leading to very rapid demographic ageing. Countries of the Asia Pacific region are varied demographically and some of the countries with the highest percentage of older population 65+ are in this region, including Japan, Australia and New Zealand (United Nations, 2002a). In countries such as China and India the concern is not the increasing percentages of ageing population, but their absolute numbers given the huge population base in these countries. Among the SIDS of the region, structural</p>	<p style="text-align: right;">B B Simple Contrast</p>
<p style="text-align: center;">.</p>	
<p>population ageing is also accelerating, with population over 60 years reaching 15 percent in Papua New Guinea, 17 percent in Fiji and 25 percent in Palau by 2050 (United Nations Population Fund & University of South Pacific, 2009).</p>	
<p>The population growth rate of Maldives declined significantly from 3.43 percent in 1985–1990 to 1.69 percent in 2000–2006 (Ministry of Planning and National Development, 2008). At the same time from 1980 to 2005, the life expectancy at birth for men increased by over 20 years, from 51 to 72 years, and for women by just under 24 years, from 49 to 73 years. This is coupled with the rapid decline of fertility rate (birth per woman) from 6.4 in 1990 to 2.2 in 2006 (Ministry of Planning and National Development, 2008). These changes in fertility and life expectancy are leading to an increase in the older people in the country. In Maldives, the older population 65+ years grew from 2.5 percent in 1985 to 5.3 percent in 2006 (Ministry of Planning and National Development, 2008). Analysis of Census 2006 data showed that older men 65+ outnumbered women with a male to female sex ratio of 1.3:1.0 in 2006 and is projected to decline to 0.9:1.0 in 2046, as women come to have longer life expectancies than men. The current ratios at older ages reflect the health situation in the life history of 65+ year olds which saw men more likely to survive to older ages than women, with their high death rates associated with child birth.</p>	<p style="text-align: right;">Simple Compar B R/R Statement Exemplified B e/a B</p>
<p>It is estimated that the share of the older population 65+ years in the total population in Maldives will grow even further with the accelerated declines in fertility and mortality occurring in recent years. The population ageing process is estimated to accelerate by 2050 reaching 15 to 20 percent in 2055 (Ministry of Planning and National Development, 2008) which is similar to the situation other SIDS. Population projections data (Department of National Planning, 2010) indicates that in the year 2046, older population 65+ years will form 13.3 percent of the population and children 0-14 years of age will form 19.3 percent. Although the older population 65+ years has started to increase, the proportion of the oldest of the old, beyond 80 years, is estimated to be quite small in the next 15 years. This is because life expectancy at 65 year is still quite low in Maldives, with 14.9 years for a person of 65 years in 2008 (World Health Organization, 2011).</p>	<p style="text-align: right;">M/R Simple Comp B Concession Contrast R/R.</p>

*B=Bonding and R/R=Reason-Result interpositional relations

Information and Communication Technology (ICT) Report (not prototype)

The definition of ICT is commonly described in relation to its different functions and types. UNESCO (1999) described ICTs as diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information. ICT tools can be considered as a range of hardware (desktop and portable computers, projection technology, calculator, data-logging and digital-recording equipment, software application (generic software, multimedia resources) and information system (intranet, internet) (Hennessy et al., 2005). ICT also includes technologies such as radio, television, video, DVD, telephone (both fixed line and mobile phones), satellite systems, and computer and network hardware and software, as well as the equipment. And services associated with the technologies, such as videoconferencing, e-mail and blogs. UNESCO (2007), reworded the term based on more functions that ICT enables 'ICTs' as forms of technology that are used to transmit, process, store, create, display, share or exchange information by electronic means. Thus, ICT can be assumed as an umbrella term that includes any communication device or application known to date.

*A= Amplification and B=Bonding interpropositional relations

95: An Explanation CG from the final LR text of Mubin

<p>enables assessment of linkages between the different layers and impacts that flow from one to the other.</p>	<p>Explanation</p>	
<p>The linkages between the different layers may be examined as illustrated in the following example: (for the purpose of discussion, Country A could be Singapore and Country B could be the U.S, as represented in the network diagrams Figure 4. and Figure 5.).</p>		
<p>At Layer 1, the decision makers could be the government of a country A, making a decision to sign a bi-lateral agreement with another country B, that might bring tighter border control processes for cargo from A to B.</p>		
<p>At Layer 3, the changes in the Customs procedures to tighten the borders may be met with extra resource requirements, and decrease in the throughput value of the port. This may further lead to congestion at the port, and cargo from the warehouse to customs port may get delayed.</p>		
<p>At Layer 4, the implications could be country A losing its port efficiency and throughput. Furthermore, if country A is a land scarce country, the extra space needed for inspection and other compliant requirements may cause congestions leading to additional delays, making country A an unattractive hub to ship cargo to country B. This might open up new opportunities to the neighbouring countries, which have abundant land. Hence the network can be reconfigured from Figure 4 to Figure 5.</p>		
<p>At Layer 6, due to the new Customs regulations enforced by country B and enforced by A's some of the firms might not qualify to send the cargo to country B. Shippers might refuse to load their cargo and Customs might delay the clearance.</p>		
<p>As can be observed from the presented scenario, each additional factor complicates the situation at each level and makes it hard to arrive at a decision. The geographical characteristics of a node such as the land scarcity of Singapore is an added burden, whereas Malaysia could handle any volume of container storage, but lacks the infrastructure compared to Singapore to operate at high throughput. These are typical factors that will be considered while modelling the network. The challenge is that no two nodes are alike, the players at each level of the supply chain operate within their own limitations and capabilities. These data have to be considered and aggregated to generate available options.</p>		

*B=Bonding, R/R=Reason-Result and S/C=Simple Contrast interpositional relations

96: A Discussion CG from the final LR text of Tram

<p>4.2.1 Second Language Acquisition paradigms <i>Discussion</i></p> <p>SLA is defined as the study of how a second language beyond the native language is learned (Gass & Selinker, 2008). Historically, SLA gained legitimacy as a scholarly discipline <u>by drawing on psychological and linguistic theory</u> that followed the mental models of Noam Chomsky. <u>Thus traditional SLA research and theorizing have concentrated on decontextualized mental processing, often in experimental situations.</u> As noted by Ellis (2008), traditional SLA has relied heavily on Eysenck's (2001) processes of cognitive</p>	
<p>psychology including "attention, perception, learning and memory, language, problem solving, reasoning and thinking" (p. 1) to examine and inform second language acquisition. <u>In addition</u>, second language learners have been conceptualized as "stable, internally homogeneous, fixed entities" (Hall, 2002, p. 31), whose internally motivated states are believed to drive their actions (Swain & Deters, 2007). <u>Hence</u>, any of their language-related activities, speaking for instance, are viewed as cognitively and emotionally driven and independent of the context.</p>	
<p>In 1997, <u>however</u>, Firth and Wagner called for a significantly enhanced awareness among SLA researchers of the contextual and social dimensions of language use. They argued for the reconceptualization of SLA in terms of language use in relation to social interaction (Firth & Wagner, 1997). Their <u>proposal</u> received wide support from many researchers such as Block (2003), Lafford (2007), Norton (2000), Sfar (1998), and Swain and Deters (2007). In a subsequent elaboration, Firth and Wagner (2007) emphasized the role of language use in second language acquisition. They argued that "language acquisition is built on language use" and that "acquisition cannot and will not occur without use" (Firth & Wagner, 2007, p. 806).</p>	

*A= Amplification, B=Bonding, M/R=Means-Result, M/P=Means-Purpose and GC=Grounds-Conclusion interpositional relations

As shown in Table 5.1, regarding the extent of incorporation of CG elements, Tram appeared to be most advanced, while in the cases of the other four participants the ability to use CG elements was emerging. Comparisons both within and across individual participants suggest that their writing appears to be

much more coherent and appropriate as academic text when elements of CGs were found. The ways of organising propositional thoughts in the passages of the participants in Extracts # 92 to 96 signalled their intentions to explain, report or discuss certain concepts or research findings in relation to their research projects, permitting the content of their writing to be communicated quite clearly.

The significance of employing CG elements for the organisational ideas seemed to be more clearly identified by considering some instances in which the cluster of interpropositional relation was not built up in the form of CGs. When the features of CGs did not emerge, ideas and propositions expressed in sentences were only loosely, or even hardly interrelated with each other, so that without the aid of section headings, it was often not easy to comprehend the content or main points. In such a case, their writing is read as just an enumeration of pieces of information either irrelevant to, or only very loosely associated with each other. Therefore, such pieces of information do not converge into a certain issue or topic, for which a rhetorical purpose can be assigned, and around which coherent prose with CG elements can be constructed. This is exemplified in an extract from the LR text of Nada (see Extract # 97).

97: An extract from the final LR text of Nada

<p>Analysis of the data from the 2006 Census in Maldives shows that 45 percent of older population 65+ years is not economically active (Ministry of Planning and National Development, 2007) and the proportion of women not economically active is higher (69 percent) than men (44 percent). About 50 percent of these had indicated health conditions as reason for not working. Other most common reasons for not working include income recipient through pension or rent, household work and caring for children, objection to work by family and relatives, and needing special care.</p> <p>The demographic transition in the countries is also accompanied by an epidemiological transition which involves a shift in the causes of diseases and death (Omran, 1971). The epidemiological transition generally involves a shift from communicable diseases to non communicable, chronic diseases. Such transition is occurring globally, both in developed and in developing countries. According to World Health Organization, 80 percent of chronic non communicable diseases occur in the low and middle income countries (World Health Organization, 2005). Over half of the global burden of cardio vascular diseases occurs in the Asia Pacific Region and the prevalence of diabetes is expected to double in the region over the next 15 years (World Health Organization, 2011, p. 288, 522). These chronic diseases are prevalent in all age groups, especially among older population groups. The chronic non communicable diseases affecting older populations include hypertension, diabetes, heart diseases and stroke causes a huge burden on health services (World Health Organization, 2008). Although there are variations by country, the leading causes of death among older population across countries include ischemic heart disease, chronic obstructive pulmonary disease, cerebrovascular disease, and lower respiratory infections. Women bear more disabling chronic illnesses, as they generally live longer than men (World Health Organization, 2005).</p>	<p>These two paragraphs are under a section the heading of which is "Implications of population aging for Maldives". But she just numerates pieces of information by chaining propositions, from which any particular theme (and rhetorical purpose) is not identified and thus CG elements do not emerge.</p> <p>Recursive Bonding continues</p> <p>Concess/Contra</p> <p>R/R</p>
--	--

*B=Bonding, R/R=Reason-Result interpropositional relation and Concess/Contra=Concession-Contra-expectation interpropositional relations

In the extract above, Nada covered a certain area of her research topic in the literature, but it is not evident how the coverage or review is meaningfully related to her research topic. That is, she chained a number of sentences with the Bonding interpropositional relation, but without the framework of a CG with a clear rhetorical purpose or intention for this part being apparent, the messages that she might try to communicate with her reader in relation to her own research purpose were not clearly known.

Sometimes, the participants managed to communicate the messages that they intended, typically by stating explicitly their intentions for presenting certain information from the literature although CG elements were not successfully incorporated. In such cases, however, by not following prototypical rhetorical patterns operationalised here as CGs, their text did not appear to be a well-written

piece of writing. This is exemplified by a paragraph from a section of the LR text of Hai in Extract # 98, which she titled as “EFL/ESL teachers and self-efficacy”.

98: An extract from the final LR text of Hai

<p>Lee (2009) studied Korean elementary teachers' self-efficacy in teaching English. One main aim of her study was to understand the factors affecting the study teachers' English teaching self-efficacy, including attitudes towards English, English proficiency, and teacher characteristics. A questionnaire consisting of 6 parts was sent to participants, which was then followed by interviews and classroom discussions. The modified 12 items of the <i>Teachers' Sense of Efficacy Scale</i> (Tschannen-Moran and Woolfolk Hoy, 2001) was part I of the questionnaire. Part V of the questionnaire asked the teachers to rate their current level of English proficiency and the necessary level to teach English effectively in four skills: listening, writing, speaking, reading. From her quantitative and qualitative data, the author reported that the current level of English proficiency and their views toward English as an International Language and Native Speakers of English were two significant predictors of teacher self-efficacy. What the study tells me is that when exploring how teachers construct their self-efficacy, beside teachers' English proficiency, a combination of other factors, such as their attitudes, personal and professional profiles should be put into consideration.</p>	
--	--

*B=Bonding, M/R=Means-Result, T/S=Temporal-Sequence, G/C=Ground Conclusion and C/C=Contrastive Coupling interpositional relations

In the section from which the passage is from, she presented several paragraphs similar to the one presented above, each of which introduced a research study on the self-efficacy of English teachers in a certain context, and stated the implications of the study meaningful to her own research. As seen from the extract, she was able to demonstrate the purpose of the section and the paragraph. Nevertheless, little CG development was found from the paragraph above as well as the rest part of the section, and the whole section did appear to be a prototypical text in English-medium academic contexts.

5.4.2 Expressing criticality

Thus far, I reported the overall importance of the SG and CG knowledge in creating coherent, appropriate text in an English-medium context, which emerged from the LR texts of the participants. In addition to this, it was also found that the participants appeared to fulfil a central function of a LR text – critically evaluating the extant literature – through the use of particular devices (Bruce, 2014). Two of these devices that the participants employed to express criticality were the use of the *Concession- Contraexpectation* interpropositional relation (Crombie, 1985) and *attitude markers* (Hyland, 2005). Thus, as Bruce (2014) suggests, the use of these two devices seemed be elements of genre knowledge used to critique or evaluate.

Firstly, to express the evaluative judgements that they made about the target literature, the participants used attitude markers, such as “attitude verbs (e.g. agree, prefer), sentence adverbs (unfortunately, hopefully) and adjectives (appropriate, logical, remarkable)” (Hyland, 2005, p. 53). Table 5.2 presents the attitude markers used in the final LR texts of the five participants.

Table 5.2: Evaluative attitude markers in the LR texts of the five participants

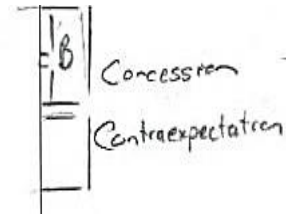
Participants	Attitude verbs	Sentence Adverbs	Adjectives
Hai	overlook, emphasize, argue, assert, believe, expect, be concerned about, consider, regard, confirm, expect, claim, value, over-simplify, would like, am aware, assume	ultimately, basically, still, largely, successfully, privately, independently, specifically, effectively, unquestionably, indirectly, solely, recently, closely, nearly, positively,	simple, complex, reciprocal, important, general, context-specific, weak, low, necessary, independent, difficult, competent, dynamic, convincing, powerful, best, self-efficacious, negative, clear, vicarious, academic, widespread, influential, individualistic, detailed, specific, classical, managerial, quite similar, practical, valuable, effective, therapeutic, useful
Nada	believe, assume	typically, indeed, universally, widely, specifically,	absolute, accessible, particular, prevalent, obstructive, adequate, affordable, communicable, beneficial, vulnerable, advanced, isolated, strong, comprehensive, essential, basic, clear, complex, acceptable, subjective, objective, appropriate, insufficient, good
Mubin	reveals, promote, claim, recommended, help, refuse	essentially, effectively, reasonably, especially	catastrophic, overwhelming, flurry, ambiguous, appropriate, right, significant, robust, resilient, competitive, advantageous, preventive, inevitable, normal, uncommon, evident, inaccessible, obvious
Fadila	believe, emphasise	poorly, adequately, still, successfully, early	disappointing, successful, significant, positive, effective, attracting, complex
Tram	assume, consider, regard, believe, ignore, reveal, highlight, support, seek, rely on, be restricted, attempt	specifically, readily, particularly, potentially, culturally, directly, still, indirectly, minimally, seriously, passively, entirely, negatively, generally, typically, reluctantly, narrowly, predominantly, simultaneously, historically, heavily, internally, significantly, thoroughly, originally, gradually, merely, traditionally, largely,	dominant, strong, subjective, non-scientific, inferior, popular, central, negative, influential, measurable, emotional, cognitive, individualistic, social, cultural, indirect, self-perceived, general, overt, anxious, interpersonal, vicious, silent, unwilling, advanced, low, significant, debilitating, facilitative, motivating, internal, individual, unpleasant, productive, particular, positive, decontextualized, experimental, homogeneous, integrative, constructed, legitimate, peripheral, desirable, reticent, inactive,

When reading these attitude markers in their LR texts, the evaluative judgements that they convey were sometimes those of the authors of the literature that they were reviewing and sometimes those of the participants themselves. In both cases, by using attitude markers, the participants were able to convey values that the participants intended to attach to certain issues or states of affairs.

Secondly, I present examples of the enactment of criticality through the use of Concession-Contraexpectation interpositional relations found in the LR texts of the participants.

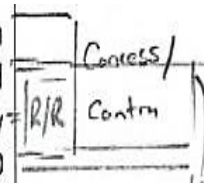
99: A Concession-Contraexpectation interpositional relation from the final LR text of Mubin

The literature in Supply Chain Security (SCS) is more focused on preventive themes and discusses management of supply chains through partnerships, collaborations and being compliant by participation in security initiatives to prevent any disruptions. However, the literature purports that future disruptions due to terrorist attacks are inevitable.



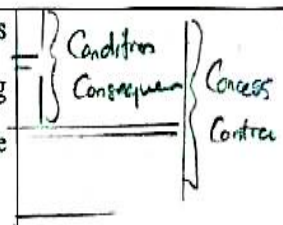
100: A Concession-Contraexpectation interpositional relation from the final LR text of Nada

Literature shows that even though countries have different forms of social protection benefits and provision mechanisms, those beneficiaries in the rural areas often tend to be left out mainly because they not aware of the schemes due to the low literacy levels. For example, the 2002 Survey of Elderly in Thailand revealed that only 50



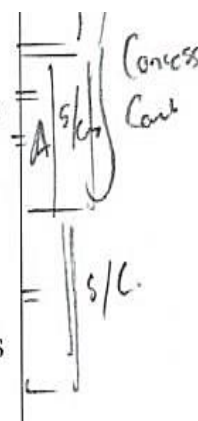
101: A Concession-Contraexpectation interpositional relation from the final LR text of Tram

(Bown & White, 2010, p. 441). The study showed that the students' emotions emerged and changed according to particular settings and learning opportunities. However, their findings were still limited to a focus on the negative influences of unpleasant emotions.



102: A Concession-Contraexpectation interpropositional relation from the final LR text of Hai

self-efficacy and their English language proficiency. However, unlike what they stated, their finding proved a different important thing, that is, the positive relationship between teacher knowledge of the language and language learning and teaching and teacher self-efficacy. This conclusion adds to my understanding that not only teachers' English competence but also teachers' knowledge of language and language learning and teaching might have impacts on Vietnamese EFL teachers' self-efficacy.



The use of the Concession-Contraexpectation interpropositional relation appeared to allow the participants to express their critical evaluations of certain notions or issues, particularly which they sought to argue against. Often an argument using this proposition led to identifying gaps in the literature that their research sought to occupy.

Thus far, the findings in Sections 5.4.1 and 5.4.2 indicated that, the knowledge of and ability to use SG and CG elements seemed to be essential for using English in academic contexts, particularly creating extended text (including the enactment of critical thinking in the LR) coherently.

5.4.3 Expressing logicity

Finally, the analysis of the participants' LR texts also reveals that logical ideas can be expressed and communicated effectively when they flow through prototypical CG structures. In Section 5.2.3 it was briefly mentioned that the participants applied logic for evaluating the literature that they were reviewing. Such logicity or application of logic was also identified in the LR texts of the five participants. An issue arose at times in these texts was that even though ideas expressed in prose were logical, when the prose was not rhetorically structured, such as in the way proposed by the CG model, it still appeared somewhat incoherent, and thus the writer's underlying logicity was not successfully communicated. An extract from Hai's literature review text seems to instantiate this case:

103: An extract from the final LR text of Hai

<p>The influences of social and cultural contexts on people's perceptual process have also been stated by other researchers (Burke et al., 2009; Nisbett & Miyamoto, 2005). According to Nisbett and Miyamoto (2005), people's participation in social practices may cause "chronic as well as temporary shifts" (p. 467) in their perception. In Vietnam, EFL teachers' perceptions of their role in class might be changed significantly due to a major change in societal expectation of active English learners. A modern Vietnamese job-seeker is expected to be competent in oral English communication instead of only in English grammar. Vietnamese culture considers teachers as models in terms of both knowledge and morality. This is also encoded in The Education Law (MoET, 2005). EFL teachers in my faculty, like other teachers in Vietnam, are expected to give students moral education and demonstrate morality in their everyday lives. These EFL teachers might take this requirement for granted and practice it every day.</p> <p>The above literature and examples inform my study that the social cultural factors in Vietnam and the faculty context may have an influential role in affecting how the EFL teachers construct their self-efficacy beliefs. These social cultural factors might determine the sources of self-efficacy information and influence the way these sources are interpreted. In other words, teachers' self-efficacy beliefs might be affected, changed and shaped by the social</p>	
<p>cultural factors. Self-efficacy belief is a type of "self"-belief (Schunk, Pintrich & Meece, 2008). As a function of culture, the selves of EFL teachers in Vietnam might be different from the selves of other teachers in Western countries where the widely used self-efficacy construct was developed. It is plausible that the self-efficacy beliefs of EFL teachers might operate differently from teachers of other subjects in Vietnam because they are embedded in two different cultures, Vietnamese culture and a filtered, media-based version of English culture with different value systems.</p>	

B=Bonding, R/R=Reason Result, S/C=Simple Contrast and G/C=Ground Conclusion interpositional relations

In Extract 103, above, the steps of her argument in the first section of her passage can be outlined into two statements as follows:

- (a) Some researchers suggest that S influences P and also that C influences P.
- (b) X and Y are researchers who claim that a change in S causes a change in P

Here she uses Statement (a) as the condition for Statement (b). That is, she claims since S influences P, it is reasonable to say that a change in S can cause a change in P. This development of her argument seems to be straightforward and

reasonable. Then the middle section also seems fairly logical. That is, although not clearly articulated, it is her implicit point that Vietnamese teachers traditionally teach grammar but not oral fluency. Then she argues that students as job seekers expect to speak English fluently, but the traditional emphasis on teaching morality and focusing on grammar does not meet this need of students. This is therefore likely to put pressure on teachers to reconsider their role. Finally in the last section of Extract 103, she again presents logically acceptable ideas. The emphasis on 'self' in the first sentence is used for making a distinction between non-EFL teachers in Vietnam who are not exposed to western concepts of the self, and EFL teachers who are. If this produces difference conceptions of self and self-efficacy as self-belief, there are then possibly differences between the two groups of teachers in terms of their belief in their self-efficacy. If this is the case it may be relevant to how they respond to the role challenges identified earlier.

Therefore, the overall argument of Hai's in the extract can be considered to be logical. However, despite this, her writing was still not clear and it was not easy to follow her line of thinking. In the first and last parts of her extract, she was not able to assign proper interpropositional relations for expressing the interrelation of her thoughts, the meaning of which, as I reported immediately above, was in fact logical. Then overall, she was not able to organise her argument in the form of a prototype Discussion CG, and therefore her passage gave impression that it seems incoherent. A similar issue was identified in Nada's LR text:

104: An extract from the final LR text of Nada

<p>Wellbeing of the ageing populations - research findings</p> <p>Recent studies on wellbeing have shown that satisfaction with life or subjective wellbeing in adults is higher among older population segments (Argyle, 1999; Cummins, et al., 2003; Diener, et al., 1999). This has been attributed to the lower aspirations in older people and habituation to the situations of life (Campbell, Converse, & Rodgers, 1976). Literature shows that most of the domains of wellbeing proposed in the research models show positive correlation with wellbeing of the older populations as well (Baltes & Mayor, 1999; Koopman-Boyden & Waldegrave, 2009; Netuveli, Wiggins, Hildon, Montgomery, & Blane, 2006; Woo, et al., 2002). However, some aspects such as health, living arrangements and social connectedness show strong positive correlations with the wellbeing of older populations in several studies. The empirical evidence from literature shows that these dimensions and correlation with wellbeing have stood the test across different cultures.</p> <p>Perceptions of good health show positive correlation with subjective wellbeing (Pool, Amey, Cameron, & van der Pas, 2009), despite the frailty and chronic disease conditions of older populations. Subjective wellbeing is lower only when objective health status is linked to a reduction in functionality and mobility (Bowling, Farquhar, Grundy, & Formby, 1993; Larson, 1978; Netuveli, et al., 2006). In a study on health of older people (50-90 years) in Maldives, 45percent of the people indicated their health did not affect their normal activities (Jameel, 2003)p.66, indicating implications of their health on their wellbeing. Nutrition is one aspect of health that has received less attention in the study of wellbeing. However, nutrition can make a substantial impact on the health and functionality of the older people, thereby improving their quality of life (Miquel, 2001; Tucker & Buranapin, 2001). Poor nutrition status of older people leads to prolonged length of stay in hospitals and nursing home (van Nes, Herrmann, Gold, Michel, & Rizzoli, 2001) affecting their functionality and wellbeing. Some researchers note that even though measurement of health related quality of life indirectly measures nutrition status, it is insufficient and more emphasis needs to be given on the effect on nutrition on quality of life and wellbeing (Amarantos, Martinez, & Dwyer, 2001).</p>	<p>No clear C/Cr in this section</p> <p>A } B R/A } ? } ? } meaning unclear in the rest of this para X ? } ? } ? } Concess/Contra. Condition/Conseq A } G/C ? } R/R } R/R Concess/Contra (implied)</p>
---	--

A=Amplification, B=Bonding, Concess Contra=Concession-Contra-expectation R/R=Reason Result, S/C=Simple Contrast and G/C=Ground Conclusion interpropositional relations

Firstly, the series of her thoughts expressed in the first paragraph can be stated as follows:

- (a) In general, senior people (in the Maldives) are satisfied with the quality of their life
- (b) Such satisfaction about their wellbeing seems to be possible because of the low aspiration about their life among senior people
- (c) This statement is true in the most domains of wellbeing
- (d) The statement is particularly true in the domains of health, living arrangements and social connectedness.
- (e) Empirical research supports (c) and (d).

Then mainly three ideas seem to be interrelated in the second paragraph, which are:

- (a) Senior people are satisfied with their state of wellbeing although they have frailty and chronic diseases, unless they cannot function well or their mobility is restricted.
- (b) This tolerance among old people to their health conditions is indicated in the data that 45 percent of senior people (high percentage of senior people) responded that their health does not affect their daily activities.
- (c) Their little concern about their health is found in their attitude to the quality of their diet, although it is one of important factors for their actual wellbeing.

Therefore, the flow and relation of the propositional thoughts that she seemed to intend in Extract # 104 is quite reasonable and logical. Nevertheless, in the same way that was apparent in Hai's writing in Extra # 103, Nada was not able to use appropriate rhetorical organisation, such as CG genre patterns, for expressing her ideas. Consequently her writing appears unclear and the logicity in her thinking is not easily communicated.

The analysis of Hai's and Nada's writing extracts in which conventional thought-structuring patterns were not sufficiently incorporated seems to indicate again the importance of having competence in using such conventional patterns. That is, although the actual content of thought encoded in text is admittedly reasonable and logical, such logical thinking may not be properly recognised or understood, when they are not expressed in the form of prototypical text structure.

Summary and implications of Section 5.4

Section 5.4 reported document analysis exploring in what ways the use of prototypical genre knowledge conventions is important and thus it may need to be considered as an extra-linguistic element of academic English competence. This question that the analysis sought to address initially emerged from the interview data. It seemed that the successful use of SG and CG knowledge elements, when both structuring and establishing stance in academic texts (in an English-medium academic context), contributes to the overall coherence and communicability of the text. The importance of having knowledge of and ability to use genre knowledge became evident in the cases where criticality and logicity was

present in the content of texts, but was not communicated successfully when competence in using academic CG patterns was not underdeveloped. The findings of this section are discussed in Chapter 6, Section 6.3.3 for considering the scope and areas of their SLA.

5.5 Conclusion

This chapter examined the nature of the SLA of the participants that appeared to occur while they were undertaking the LR for planning their PhD research projects.

Firstly, Section 5.1 sought to understand the cognitive and epistemological dispositions and processes of the participants manifested in their approaches to knowledge sources embedded in texts (mainly written but spoken as well). Then in Section 5.2, I examined the accounts of the participants and other supplementary data that seemed to exhibit their SLA in relation to their cognitive processing while comprehending and composing academic texts, which was reported in Section 5.1. In the following Section 5.3, I examined the involvement of the communities of the participants in their SLA. Finally, Section 5.4 presented the analysis of the final LR texts of five participants that seemed to reveal in what ways procedural genre knowledge is a critical element of competence in using academic English.

In Chapter 6 following, I will summarise the findings of the study presented in this chapter and discuss them drawing on the conceptual framework established in Chapter 3.

6 DISCUSSION OF THE FINDINGS

6.0 Overview

This chapter discusses the findings presented in Chapter 5 in relation to the conceptual framework established in Chapter 3. As articulated throughout the previous chapters, this present study has aimed to understand the nature of SLA in an English-medium academic context from a phenomenological realist perspective. Phenomenological realism as a philosophical school of thought is not new, but it appears to be new to the field of SLA. This has required me to clarify the reasons why I decided to go beyond the existing philosophical beliefs practised in the field (Chapter 2), and to explicate concepts and issues critical to theorising SLA from a realist perspective (Chapter 3). The discussion of the findings here is an expansion and integration of what has been presented in the previous chapters. That is, the findings are highlighted and explained in conjunction with the concepts and issues already reconsidered once, to which I also relate the previously discussed limitations of the existing SLA paradigms, particularly those of the social, cultural stream.

Firstly, in Section 6.1, I briefly review the intentions behind the research questions, and summarise the findings sections that address the four subsidiary research questions. Although the structure of this chapter roughly corresponds to the order of the subsidiary research questions, I do not exactly organise the discussion according to these questions. Thus, this section seeks to provide a coherent account in order to ensure the integral continuity and relationship between the research questions and findings and the discussion of them that occupies the rest of this chapter.

Next, Section 6.2 discusses the implications of the findings as they relate to the nature of the cognition of the participants, the thought-language relation and its operation in relation to their knowledge, and finally the ontology of their academic knowledge and their epistemology. The discussion seeks to reconceptualise these mental faculties and properties resisting the social constructivist conceptualisations used to theorise SLA.

In the following Section 6.3, I discuss the nature of the SLA of the participants in terms of the realist concepts of the mind and cognition, thought-language relation, and knowledge that I identify in Section 6.2. The clarification is carried out specifically in relation to the thought-language operation in the mind and Husserl's (1970) three conditions for knowledge – the transcending quality of the mind, applying logic to thinking and intersubjectivity in epistemological communities – that I reviewed in Chapter 3, Section 3.1.4.

Finally, Section 6.4 concludes this chapter and previews the final chapter.

6.1 The research questions and a summary of the findings

The findings of the study converge on the overarching research question, which is:

What is the nature of the second language acquisition (SLA) of eight PhD students while undertaking the literature review (LR) in English, their second language, during the period of preparing the research proposal in a New Zealand university?

Centrally, this main question has been posed in order to understand SLA in an academic context as well as concepts and issues about the mental faculties and properties of second language speakers fundamental to explain SLA.

Section 5.1 explored the first subsidiary question:

- 1. What are the central cognitive dispositions and processes that characterise the participants' approaches to developing academic knowledge while undertaking the LR?*

The research question was designed with the realisation that understanding the mental faculties and properties and cognitive processes of the participants is essential to investigate their SLA.

Section 5.1.1 firstly suggested that for the participants undertaking the LR meant more than just writing an LR text. It was an overall process of developing knowledge and competence required to prepare the research project. Sections 5.1.2 to 5.1.4 then examined their cognitive dispositions and processes displayed in the process of developing such knowledge and competence.

The findings reported in Section 5.1.2 revealed that the intentionality seemed to be the fundamental condition for the participants to be able to develop knowledge of the target literature. It enabled them to uptake sources of their knowledge in selective, focused ways while engaging in spoken and written social processes. Next, the findings in Section 5.1.3 suggested that thought and language in the minds of the participants were interrelated and cooperated with each other, but ontologically they appeared to be two separate entities. Lastly, Section 5.1.4 reported that the participants considered that they understood the content of spoken and written texts as intended by the literature authors or other scholars in academic conversations despite the influence of their own cultural, linguistic backgrounds.

In Section 5.2, I examined the SLA of the participants in relation to their cognitive dispositions and processes identified in Section 5.1, in which they engaged in while undertaking the LR. The research question that this section addressed is:

2. *To what extent is the SLA of the participants understood in terms of their cognitive dispositions and processes characterised in reviewing the target literature and research planning?*

The findings in Section 5.2.1 revealed that the cognitive striving and processing to understand the meanings that other scholars intend to impart seemed to be conducive to the development of the SLA of the participants. Significantly, the SLA that occurred through this processing centrally involved iterative perceiving the target meaning and drawing on real events relating to the meaning. Next, Section 5.2.2 reported that the participants appeared to acquire thought-structuring procedural knowledge as well as linguistic knowledge through hierarchical thought-language processing in composing texts. Finally, Section 5.2.3 reported that the criticality of the participants seemed to be what they already had had, rather than they had to acquire while learning English language. Nevertheless, the need for critiquing the target literature after understanding it precisely and enacting their critical ideas academically seemed to drive them to develop their academic English competence.

Section 5.3 then addressed the third subsidiary research question:

3. *To what extent is the involvement of the participants' academic communities facilitative of their SLA?*

The intention for this research question was to identify the extent to which the academic communities of the participants played a role in the process of their SLA. The findings of the section indicated that the academic communities of the participants were involved in, and contributed to the SLA of the participants in two ways. Firstly, the sources of the rhetorical and linguistic knowledge of the participants were provided by people in their academic communities, mainly by the authors of the literature. Secondly, the linguistic and procedural knowledge of the participants was checked, revised and validated by their academic community members, and the ones who centrally took this role were obviously their doctoral supervisors. However, it emerged from the accounts of the participants that the support and feedback from the communities of the participants (i.e., social scaffolding) was not central to the SLA that occurred.

Finally, Section 5.4 explored the fourth subsidiary research question, which is:

4. *In what ways is the use of prototypical thought-structuring patterns important and (thus) is indicated as part of academic English competence?*

The last subsidiary research question aimed to understand the participants' competence in writing the LR in terms of their use of genre knowledge (Bruce, 2008a) by analysing the final LR texts of five participants. The importance of developing procedural knowledge to structure extended academic text emerged from the interview data, calling for a need to identify specific knowledge areas involved in that ability. The findings from the analysis of the LR texts indicated that genre knowledge involving social genre (SG) and cognitive genre (CG) elements was essential to create extended prose coherently and appropriately in an English-medium context. This knowledge appeared to be important for expressing both criticality and logicity.

In the following sections of this chapter, I discuss the implications of the findings in relation to the conceptualisation of SLA.

6.2 Reconsidering the ontology and epistemology of second language speakers

This section seeks to conceptualise the nature of the mind and cognition (Section 6.2.1), the thought-language relation and its operation (Section 6.2.2) and the knowledge of the participants (Section 6.3.3) by discussing relevant findings from a realist perspective.

Chapter 2 reviewed and problematized the conceptualisations of such areas employed by the three SLA schools of thought – behaviourism, cognitivism and the social, cultural stream. The review was particularly concerned with the social constructivist perspective of the social cultural stream. This is for the reason that, while the limitations of the other two have been extensively discussed in the literature of SLA theory and research, systematic examination of those of the social constructivist conceptualisation of the human mentalities, particularly from a realist perspective, seems to be scarce. In the discussion presented in this section, I again mostly interact with the social constructivist notions relating to clarifying the principal concepts of human mental faculties and properties in SLA drawing on the findings from the present study.

6.2.1 The mind and cognition

In Chapter 2, I argued against the extant conceptions of the mind and cognition in the study of SLA. I contended that we should not presume that the mind and cognition do not exist (behaviourism), oversimplify them by using the computer/information processing metaphor (cognitivism), or reduce them to a social product and internalised social process, or even simply an extension of a social process (social, cultural perspective).

This section discusses the ontological features of the participants and their cognition – the operational processing of their minds – drawing on the conceptual framework established in Chapter 3. The most relevant section to the discussion is Section 5.1.2 that presented the findings about the intentionality of the participants. However, since the nature of their minds and cognitions illustrated in the section permeates every aspect of their SLA, I also draw on the findings presented in other sections.

The clarification of the ontological state of the participants' minds can begin by considering the findings that indicate their intentionality. Woodruff Smith and McIntyre (1982) define intentionality, the concept coined by Husserl, as “the property of a thought or experience that consists in its being a consciousness “of” or “about” something” (p. xiii). It is a quality or property of the mind being directed at things perceived or thought, irrespective of their being physical/mental or real/unreal. The accounts of the participants in Section 5.1.2 exhibited such intentionality. That is, they initiated engagement in social processes and selectively directed their attention to information that they intended to know (Extracts # 5, 6, 7, 8 & 9 in Section 5.1.2). In particular, the narrative of Padma in Extract # 15 in Section 5.1.2 suggests that the intentional directedness of her mind towards the literature relating to her study is constant and on-going even when she was physically attending to some other activities. Then her focused mind eventually allowed her to synthesise and bind a number of pieces of information into a body of knowledge of her research project.

Such intentionality of the participants seems to affirm the ontological order of the mind and social processes that I argued for in Chapters 2 and 3. That is, their minds did not emerge from social processes but existed *prior* to social processes, enabling them to engage in such social processes. Given that the participants of this study are adults, clarifying the fundamental genesis of the mind and social processes is beyond the scope of this study. Nevertheless, it can still be reasoned that, to initiate or engage voluntarily with social interactions including written textual engagement with the literature, and to be constantly directed at what they intended to know, the mind should already exist. The view of the mind as an inherent, integral human faculty of a person rather than a social product has been proposed by a number of scholars including Husserlian realist philosophers (e.g., Chalmers, 2010; Davis, 1983; Eccles, 1982, 1994; Eccles & Robinson, 1984; Husserl, 1970; Kelly et al., 2007; Lewin, 1992; Nagel, 2012; Plantinga, 2011; Stapp, 2007; Trefil, 1996; Willard, 2007; Woodruff Smith & McIntyre, 1982). This ontology of the mind is in fact the axiom of these scholars, based on which they explain all human attitudes and behaviours.

The ontology of the minds and cognition of the participants that I suggest here is clearly distinct from that of the social constructivist SLA approaches that claim

that the mind and cognition are produced through interpersonal social processes. For example, according to the approach of sociocultural theory (SCT), cognitive processing “appears twice, first between people...and then within the individual” (Lantolf & Thorne, 2006, p. 153). The emergentism approach merely places the mind and cognition at the extended end of social, cultural processes (Atkinson, 2010). Even more radically, the conversation-analytic (CA) approach conjectures that cognition occurs and exists not in the mind but at social, public sites (Kasper 2009; Kasper & Wagner 2011).

Certainly, social, cultural influences on individuals’ minds should not be overlooked. This study in fact found that the participants obtained their knowledge sources from different social groups of people, some of whom also verified and corrected their knowledge and language (see Section 5.3). However, it appears to be logically fallacious to say that because A (e.g., the mind) is influenced by B (e.g., social processes), A must originate from or be produced by B. There are accounts of the participants that revealed the functions and states of their minds, which are hardly explained by presuming that their minds and cognitions emerged from social, cultural processes. I state and restate such functions and states of their minds as follows:

- being focused or being directed at knowledge sources that they intend to know (Extracts # 5, 6, 7, 8, 9, 13, 14 & 15 in Section 5.1.2);
- taking initiatives when engaging with social processes (Extracts # 5, 6, 7, 8 & 9 in Section 5.1.2);
- being selective in appropriating knowledge sources, such as theories or concepts from the literature or comments from supervisors (Extracts # 5, 6, 7, 8, 9, 13, 14 & 21 in Section 5.1.2);
- interrelating a number of pieces of knowledge and formulating an integrated, coherent body of knowledge for the research project (Extract # 15 in Section 5.1.2, Sections 5.2.2 & 5.4);
- seeking clear, accurate understandings of messages as intended by the writers or speakers beyond cultural, linguistic backgrounds (Extracts # 22, 23 & 25 in Section 5.1.3 & Extracts # 39, 40 & 41 in Section 5.1.4); and,

- making critical, evaluative judgements on the target literature, based on developed knowledge (Extracts # 72, 76 & 87 in Section 5.2.3).

The intrinsic dilemma of a materialistic, social constructivist understanding of the mind and cognition was already revealed early in Vygotsky (1986). To stress the developmental process of human cognition and mind from social, cultural activities to language to individuals that he hypothesises, he alters the Bible verse “In the beginning was the Word” as “In the *beginning* was the deed” (p. 255). However, this approach precludes the necessity that there should be a conscious, intentional mind first for the “deed” to occur. A statement of Willard (2007) addresses the reason why the view that finds the origin of the mind from social processes is inadequate to conceptualise the mental processes and states of the participants:

[O]ne has to be sure to hold to the mental acts themselves, and to how they go together to form the larger wholes of mental life, [even] up to the level of the whole person or self... Certainly these mental acts have a physical and a social context. But how the [mental] acts relate to each other ... as a memory, a purpose, or a logical inference cannot... be captured by features of those contexts... Especially, one can never understand the unity of the experiences [and knowledge]... if he or she only takes into consideration the objects of mental acts. (Para 5)

According to Willard, the realist concept of the mind emerges from understanding the human being as an integrated self. In relation to the present study, I consider that the participants (their minds) were able to develop a body of knowledge by integrating a number of pieces of information, because they are human agents with unified, integrated self-identities (as opposed to multiple, fragmented identities). Social, cultural SLA researchers have acknowledged one’s first person perspective of his/her own identity (Norton & McKinny, 2011) and “some degree of agency” (Duff & Talmy, 2011, p. 97). Relating to SLA, Dunn and Lantolf (1998) argue that “L2 learning is about gaining the freedom to create” meanings (p. 427). However, because of the limitation of their own paradigm, they are obliged to propose that the sense of identity and agency is essentially a social product. Thus, one’s identity is multiple and fragmented as it is differently constructed in different social situations (Norton, 2000; Kasper & Wagner, 2011),

and the person's sense of agency is not actual power to exert his/her freewill.

Lantolf and Thorne (2006) put it:

We wish to emphasize that agency does not equate with free will or ultimate control of one's actions or destiny. This is an unrealistic conception of agency – an impossibility and a misreading of the term... in socioculturally oriented research. (p. 237)

Thus, the approach to human agency without freewill that those social, cultural researchers advocate would appear to be contradictory because the term of agency itself refers to one's power to organise and operate his/her own actions. Freewill does not necessarily denote limitless freedom, but still allows for the capacity to make choices on one's own within historical, cultural contexts. Moreland and Rae (2000) refer to the concept of freewill as *categorical ability*:

[Categorical ability] expresses the type of ability possessed by a first-mover that can exercise active power...[and it] is a dual ability: if one has the ability to exert his power to do (or will to do) *a*, then one also has the ability to refrain from exerting his power to do (or to will to do) *a*. (p. 125)

In summary, I suggest that the functions (cognitions) and dispositions of the minds of the participants did not merely originate from social, cultural processes. Instead, they are inherent faculties that enabled the participants to attend to necessary knowledge sources by engaging selectively in social, cultural processes and together constitute a united body of knowledge. This accords with a view of the participants as agents with integrity and freewill. It will emerge throughout this chapter that understanding the minds and cognitions of the participants (and their personhood) from a realist viewpoint has considerable implications for theorising their SLA and discussing wider issues in relation to their being second language speakers of English.

6.2.2 Thought-language relation

This section seeks to explain the relationship between thought and language in the knowledge development of the participants in terms of the conceptual framework presented in Chapter 3. I organise the discussion in accordance with three persistent issues emerging from the SCT notion of thought and language, issues that also appear to arise in each of the social, cultural approaches. At the beginning of this section, I emphasise that my argument for the ontological

separateness and order of thought and language throughout this section does not dismiss the mutual interaction and influence between thought and language (Woodruff Smith, 2002). In relation to this section the findings in Chapter 5, Section 5.1.3 are most relevant, but extracts are also drawn on from other sections of Chapter 5.

6.2.2.1 Issue 1: Ontological contingency of thought on a particular language and culture

Drawing on the work of Vygotsky, the SCT approach to SLA claims that thought is internalised from external speech (Lantolf & Thorne, 2006). However, there is discrepancy between SCT researchers and Vygotsky's own idea in relation to the definition of thought. Vygotsky (1986) proposes the concept of *verbal thought* as thought that has been generated by external speech, but is "still more inward than inner speech" that "still remains speech, i.e., thought connected with words" (p. 249). He further notes that verbal thought consists of pure meanings without words, and that "there is no rigid correspondence between the units of thought and speech" (p. 249). On the other hand, SCT researchers, such as Lantolf and Thorne (2006), do not include the concept of verbal thought in their theoretical system, but equate it with inner speech, which has lost its phonetic and syntactic properties in the process of internalisation, but maintains its semantic meanings. Another Vygotskian SLA researcher, Johnson (2004), acknowledges the existence of verbal thought, but she states that inner speech and verbal thought are identical. This subtle difference between the approaches of Vygotsky and those of SCT researchers to thought is a critical point that raises questions about the SCT approach to SLA. I will return to this issue later in this section.

Therefore, it seems that Vygotsky's description (not that of SCT researchers) of the apparent status of thought and the discontinuity between thought and speech is somewhat closer to the realist perspective. However, there is a major difference between Vygotsky's (and SCT researchers') materialist view and the realist position to how one arrives at such thought and what its content is. For Vygotsky, thought is generated from internalising external speech, which itself is created through socially, culturally organised activities. Thus, it is not possible for thought

to exist outside the frame of a particular language and culture (Johnson, 2004). As Vygotsky (1986) states:

We tried to establish the connection between world and object, word and reality. We attempted to study experimentally the dialectics of transition from perception to thinking, and to show that a generalized reflection of reality is the basic characteristic of words...If perceptive consciousness and intellectual consciousness reflect reality differently, then we have two different forms of consciousness. *Thought and speech turn out to be the key to the nature of human consciousness...*A word relates to consciousness as a living cell relates to a whole organism, as an atom relates to the universe. A word is a microcosm of human consciousness. (1986, pp. 255-256)

By contrast, the realist approach suggests that thought can be generated without language, and a direct association and correspondence between the content of thought and that of the object of the thought can be made (Willard, 1984) (see also Chapter 3, Section 3.1). Thus, although thought is influenced by language and culture, it can still transcend them because its existence is not contingent on them. From this realist perspective outlined in Chapter 2, Section 2.2.1, I argued that Vygotsky failed to provide a clear explanation for his claim that a person, while possessing a brain and the capacity for cognition, does not activate human consciousness and thought until language acquisition. I also doubted the idea that a *being* initially lacking human consciousness can then begin to learn human language, after which he/she eventually obtains human consciousness and human thinking.

The findings of the present study appear to contradict the SCT view, providing instead evidence for realist notions of thought and language. Firstly, the participants appeared to consider thought and language in their minds as two separate entities (Extracts # 22, 23, 25, 26, 27 & 28 in Section 5.1.3 & Extracts # 54, 55, 60, 61 & 63 in Section 5.2.2). In addition, they also noted that their thinking operations transcended language in the way that Husserl (1970) proposes, an issue that I will discuss again in the following section about knowledge. For example, their thought seemed to reach out to the reality, beyond linguistic descriptions or explanations of the reality (Extracts # 52 in Section 5.2.1 & Extracts # 68, 69, 71 & 72 in Section 5.2.3). Similarly, they also exhibited meta-cultural and meta-linguistic awareness (Extracts# 33, 34, 35, 36, 37, 38, 39 in Section 5.1.4 & Extract # 69 in Section 5.2.3), which suggest that they were able

to think *about* the frames of their own language and English, with this type of metacognitive thinking occurring *above* such frames.

Moreover, the SCT notion of thought always in language seems to be incapable of explaining the case of the most of the participants, who have developed their thought of their research topics in their first language contexts, and then undertaking their PhD projects in an English-medium context (see Table 4.3 in Chapter 4, Section 4.4.1). Based on their belief that a person's thought is completely contingent on language, particularly on his/her first language, SCT researchers consider the processes of expressing thoughts that originally formed in one linguistic context in another linguistic context to be language translation (Frawley, 1997; Lantolf & Thorne, 2006). Particularly, Frawley (1997) suggests that such translation is considerably difficult and often even not possible. If this idea is applied to the participants of the present study, they would have undergone a massive exercise translating their L1-encoded thought into local and specific English. In fact, the findings of the study indicated that some participants undertook translation between their first language and English sometimes when it was necessary to clarify the meaning of the target literature (Extracts # 40 in Section 5.1.4 & Extract 46 in Section 5.2.1). Some participants also noted that expressing their thought in English was challenging (e.g., Extract # 56 in Section 5.2.2). Nevertheless, no clear indication emerged from the data that the participants underwent constant thought-translation. Rather, the experience of the participants can be reasonably understood if one applies the realist idea that a thought can be expressed in different languages or even different expressions in the same language for the reason that thinking can occur independently of language (Husserl, 1970).

6.2.2.2 Issue 2: Language to regulate thought

As mentioned previously, SCT researchers suggest that language that consists of thought (inner speech, according to them) is without phonetic and syntactic properties (Johnson, 2004; Lantolf & Thorne, 2006). However, they also have attempted to prove that actual language (language with all its linguistic properties) regulates thought (e.g., Anton & DiCamilla, 1998; Appel & Lantolf, 1994;

Centeno-Cortés & Jiménez Jiménez, 2004; Frawley & Lantolf, 1985; Ohta, 2001; Swain, 2006b; Ushakova, 1994; Verity, 2000).

The findings of the study, however, do not support this idea. For example, the participant, Hai, explicitly stated that, in composing text, idea (thought) is important, and language is just a tool with which one expresses his/her thought (Extract # 28 in Section 5.1.3). Meanwhile, a narrative of Shu in Extract # 56 in Section 5.2.2 suggested that what made her struggle by having insufficient second language (English) sources was not being unable to think, but rather having difficulty in linguistically encoding her thought that she had. Shu (and some other participants) thus studied and appropriated language and rhetorical patterns of other scholars in order to use them for expressing their own thoughts (Extracts # 56, 59, 60 & 61 in Section 5.2.2). In addition, some participants replaced certain linguistic expressions with other ones without changing their intended thoughts (Extracts # 54, 55 & 56 in Section 5.2.2). These instances seemed to suggest that, in the minds of the participants, thought seemed to be more highly or centrally ordered than language, and their thought seemed to regulate language rather than language regulating thought. As reported in Chapters 2 and 3, a number of scholars argue for the hierarchical cooperation between thought and language that emerged from the accounts of the participants (e.g., Bruce, 2008a; Pinker, 1994; Husserl, 1970; Widdowson, 2007; Willard, 1984; Woodruff Smith, 2002).

However, the discussion of the regulating relation between thought and language needs to go further than just invalidating the idea that language regulates thought, because it involves a more complex and subtle point. While researchers from the SCT approach are largely concerned with how actual language (i.e., language with linguistic properties) regulates thought, Vygotsky (1986) himself seemed to consider the idea that language regulates thought in another dimension. As discussed previously in this section, in relation to the concept of verbal thought, Vygotsky proposes the existential separateness and discontinuity of thought and language and independency of thought from language in its operation, which is in fact very close to what was reported by the participants of this study (Extracts # 28 in Section 5.1.3 & Extract # 56 in Section 5.2.2), and the views of the realist scholars as well. Vygotsky (1986) states:

Every thought creates a connection, fulfils a function, solves a problem. The flow of thought is not accompanied by a simultaneous unfolding of speech. The two processes are not identical, and there is no rigid correspondence between the units of thought and speech. (p. 249)...Thought has its own structure and the transition from it to speech is no easy matter. (p. 250)...Because a direct transition from thought to word is impossible, there have always been laments about the inexpressibility of thought. (p. 251)...To understand another's speech, it is not sufficient to understand his words – we must understand his thought. (p. 253)

Therefore, Vygotsky's original notion of thought seems to be somewhat incongruent with the claim of the SCT approach that thought itself is (inner) speech, and that actual language (or external speech) regulates thought. In effect, much of the functional relation between thought and language that SCT researcher findings propose seems to diverge from Vygotsky's own expressed understanding of thought and its operation.

However, Vygotsky's initial perspective relating to the regulation of language on thought still requires the clarification of the first issue – whether or not human consciousness and thought begin to emerge from acquiring a language, and whether or not human thinking can transcend language afterwards. To this matter, I have already offered answers: the relevant accounts of the participants (Extracts # 33, 34, 35, 36, 37, 38 & 39 in Section 5.1.4, & Extracts # 68, 70, 71 & 72 in Section 5.2.3) and Husserlian realist description of thought and language previously in this section. In relation to this issue, there appears to be a further internal contradiction within Vygotsky's theory, such as his proposal that we sometimes do not have words to express the thoughts that we have formed (1986, pp. 249-250). Contradicting this, his theory of internalisation suggests that this phenomenon is not possible for the reason that he claims that any thought of a person anyhow must be the consequence of the words that he/she has acquired already. In relation to this apparent contradiction in the work of Vygotsky, the present study presents evidence that suggests that thought is not the consequence of language internalisation, and does not need to be completely regulated and constrained by language.

6.2.2.3 Issue 3: The unlikelihood of second language speakers being able to think in L2

Chapter 2, Section 2.2.3 reviewed the comments of Lantolf (2011) and Lantolf and Thorne (2006) on a series of experimental studies, in which SCT researchers have reported that second language speakers appear not to develop the ability to think in an L2 (see Centeno-Cortés & Jiménez-Jiménez, 2004; Frawley & Lantolf, 1985; Lantolf, 2011; Lantolf & Thorne, 2006; Ushakova, 1994). These researchers extend the Vygotskian premise that a person becomes able to think only after acquiring language, and assert that developing the mastery of an L2 up to the level of thinking in the language hardly ever happens, particularly in the case of adult second language learners.

In relation to this claim of the SCT researchers, I have expressed my concern that such a speculation may create a deficit view of L2 speakers of English, particularly in English-medium academic contexts (see Section 2.2.3). However, I also suggested that it is not so meaningful to examine whether or not one can think in his/her L2 as I contended that the notion of thinking only in language itself is fundamentally flawed. As mentioned previously in this section, even Vygotsky (1986) acknowledges that there is a discontinuity between non-linguistic thought and verbal speech, and people are often unable to express what they think exactly in language (which is, for Vygotsky, even L1). The accounts of the participants in the present study also suggest that being unable to think or form thoughts in English was not actually what they struggled with. Their principal concerns were that, by not having sufficient linguistic sources, they had difficulty in expressing their own thoughts properly (Extracts # 16, 17, 19 & 20 in Section 5.1.2, Extract # 43 in Section 5.2.1 & Extracts # 54, 55 & 56 in Section 5.2.2). Then the process that they underwent was not of improving their academic English to become able to think. Rather, they searched for language to encode their own thought appropriately for their academic tasks (Extracts # 59, 60, 61 & 62 in Section 5.2.2). Therefore, the problems attributed to the participants of the SCT studies mentioned above may have been the result of them having insufficient linguistic sources to verbalise properly their own thought, thought that could have been more substantial and even different from what they actually said. However, driven by their axiom that thinking always occurs in language, these

SCT researchers appear to have concluded that their participants were not able to think in their second language, a claim that I consider to be flawed.

To summarise, this section has discussed the relationship between thought and language in the minds of the participants, tackling three issues that I relate to the SCT notion of language and thought. The ways of understanding the relation and operation between the thought and language in developing academic knowledge is intrinsically related to how the nature of (academic) knowledge and that of SLA are conceptualised. These two matters, central as they are to the present study, will be discussed in the following Sections 6.2.3 and 6.3.1.

6.2.3 Knowledge developed through undertaking the LR

This section intends to explain the nature of the knowledge of the participants that they developed by undertaking the LR as having both spoken and written textual experiences (Cousin, 2010), by discussing the findings in Chapter 5, Section 5.1.4. As reported in the section, the epistemological features of the participants revealed in their accounts seemed to accord with the realist view of knowing, while diverging from the epistemology of the cultural, linguistic relativist (another title for the paradigm of the social, cultural approaches as introduced in Chapter 1, Section 1.1 and Chapter 2, Section 2.2.2). In setting out the intended discussion, it may be necessary to summarise first the two competing positions.

According to the cultural, linguistic relativist perspective that is broadly subscribed to by social, cultural SLA researchers, one's knowledge is culturally constructed and (thus) it is contingent on the person's own language and culture (e.g., Donato, 1994; Duranti, 1986; Jacoby & Ochs, 1995; M. Johnson, 1987; Kramsch, 2000, 2004; Lakeoff & M. Johnson, 1980/2003; Lantolf, 1996, 2011). When a person attempts to understand an extant concept used in different contexts, the person appropriates it into his/her own social, cultural context, which is in fact creating a new meaning for the concept again, which is framed by his/her language and culture (Lantolf, 2011; Lantolf & Thorne, 2006). Then, when the same person happens to be in a different context, he/she bestows another new meaning to the same concept because no contexts can ever be the same and meanings are always context-contingent, unfixed and changing (Kramsch, 2000, 2004). Similarly, a person's understanding of a text comprises temporal meanings

created or constructed in a particular social, cultural context (Kramersch, 2000). In this way, the likelihood of knowledge transmission from the writer (speaker) to the reader (hearer) is dismissed (e.g., Donato, 1994; Kramersch, 2000, 2004; Lantolf, 1996, 2000). For example, Lantolf (1996) refutes the possibility that “if authors are sufficiently careful in constructing their texts, the meaning will be there for the reader to unpack in precisely the way the author intended” (p. 715).

On the other hand, the realist position suggests that the human mind has potential to know the object of knowledge as it is, and that it exists independently of the mind and thus is not changed or modified by the person’s act of knowing (Husserl, 1970). This realist notion of knowledge that Husserl suggests includes the idea that the mind is capable of transcending linguistic, cultural frames towards the object of knowledge, regardless of whether the object of knowledge is a concrete thing or state of affairs, or an abstract concept or proposition. When the object of knowledge is an abstract concept, the meaning of the concept can be shared by many people across different cultures and times. This is because, although instances of a concept intuited by different individuals are non-repeatable and unique, they share essential properties that bestow a qualification to the concept to be not something else but itself (Willard, 1982). When applying this general notion of knowledge, a person’s knowledge or understanding of a text is to know the meaning of the text intended by the author accurately.

The data of the present study revealed that the majority of the participants appeared to undertake the realist approach to reviewing the target literature, seeking to understand the meanings intended by the authors of the literature as accurately as possible (Extracts # 22, 25, 26, 36, 39, 40 & 41 in Section 5.1.2). This phenomenon may be related to what Willard (1991) notes: one naturally takes the realist position in dealing with daily concerns (e.g., knowing when to fill the car with petrol), whatever epistemology the person holds in principle.

However, as Husserl (1970) observes, self-assurance that one knows something accurately does not automatically enable one to do so, and the knowledge of the object itself is obtained when the three conditions for knowledge are met (see Chapter 3, Section 3.1.4). Therefore, here I consider whether it is indicated in the

findings that the participants had met these three conditions in the process of developing their knowledge of the target literature.

The first condition for knowledge is the transcendence of the mind towards the object, which is to perceive the object as it is. The accounts of the participants seemed to indicate they experienced this first condition. The participants returned to the same texts repeatedly in order to understand the exact meanings intended by the writers or speakers (Extracts # 47, 48, 49, 50 & 51 in Section 5.2.1). By returning to the same meanings and concepts several times, they strove to achieve correct understandings of those meanings and concepts. While developing knowledge of abstract concepts, propositions and theories, the participants sought to understand them by comparing and matching them with actual state of affairs that instantiate them as the participant, Hai, did to understand the concept of self-efficacy (Extract # 52 in Section 5.2.1 & Extracts # 68, 69, 70, 71 & 72 in Section 5.2.3). This was the case of transcending to specific instances of an abstract concept or theory when the object of one's knowledge is the concept or theory as part of the process of comprehending such notions or propositions (Willard, 1995).

The same phenomenon would be explained differently when considered in terms of the linguistic relativist epistemology. If applying this perspective, the knowledge of the participants of the literature consists of temporal, cultural interpretations, and the stated goal of the participants of understanding the messages as intended by the literature authors would not be considered possible. Their intention to achieve clear, shared knowledge of concepts or theories in the literature as the basis for developing solid, robust academic knowledge would be regarded as unachievable. The data of this study, however, do not support the linguistic relativist notion of knowledge. For example, in Section 5.1.4, Nada (and probably her supervisor as well) was aware that the concept, "family" meant nuclear family in her supervisor's culture, but extended family in her own culture, which indicates that the two concepts of the word "family" that she and her supervisor had in their own minds were safely transmitted to each other's minds (Extract # 37). Besides such awareness was possible because her supervisor and she shared the general meaning of family – a group of people in kinship relationship. This example instead conforms to the realist notion that a concept

(message) that what one means can be properly understood by the other person when the two people share the same meaning of the concept.

The second condition for knowledge, applying logic to thinking, also appeared to be met by the participants to a certain extent in the process of developing their knowledge of the target literature, although not always successfully to do so (see Chapter 5, Section 5.4.2). For instance, Tram identified the fallacy of overgeneralisation from an article about Vietnamese English speakers (Extract # 68 in Section 5.2.3). Hai and Nada examined the truthfulness of the propositions in theories and method instruments (Extract # 52 in Section 5.2.1 & Extract # 69 in Section 5.2.3). Padma refused to incorporate a concept that her supervisor suggested for the reason that it was not consistent with her conceptual model (Extract # 21 in Section 5.1.2).

However, from the cultural relativist perspective, logic is part of the rhetoric of a certain language (e.g., Kaplan, 1972, 1987). From this position, the logic that the participants employed could be claimed as inherent in English rhetoric, which they appropriated by learning and using the language in the English medium academic contexts (e.g., Kaplan, 1972, 1987). This idea could appear to be plausible considering that the terms that the participants used to address issues relating to logic, such as “overgeneralisation”, are English words. However, the meanings of those English terms used by the participants to express their logical thinking above did not seem to emerge as a consequence of acquiring English language (see Section 5.3). In addition, the logical flaws that the participants identified in the ideas of others would remain erroneous even if they were translated into a different language. Considering these aspects, the logic that the participants applied to their thinking seemed to be much closer to the type of logic that Husserl (1970) conceptualises than to the logic that the cultural/linguistic relativist proposes as a rhetorical function of a particular language.

Lastly, intersubjectivity, the third condition for knowledge, was realised in the knowledge of the participants mainly in two ways. The first is that the knowledge of the target literature is, by its nature, intersubjectively shared, communal knowledge of concepts, theories or research findings. The second is the intersubjective checking and verification of knowledge by other community

members (Extracts # 19 & 20 in Section 5.1.2 & Extracts # 81 & 85 in Section 5.3). One evident phenomenon relating to this condition for knowledge is the audio-records and summaries of supervision meetings, which were also read by their supervisors (Section 5.2.2). These audio-records and written summaries helped participants and their supervisors to achieve meaning clarification. The participants were able to incorporate fully their supervisors' feedback and advice into their work and have their knowledge of the target literature checked by their supervisors more effectively. Moreover, although regular and consistent support and help came from supervisors, the participants also had conversations with other people, such as peer PhD students and other academics in their university, regarding to their research projects (Extracts # 5, 7, 8, 9 in Section 5.1.2). These people were often from different cultural or disciplinary backgrounds, and thus they possibly contributed to creating this third condition for the participants' knowledge by helping them to develop a clear, balanced understanding of the target literature.

To conclude, the content of the knowledge that the participants acquired appeared not to comprise merely culturally relative or context-bound temporal interpretations of the literature that they reviewed. Rather, it appeared to consist of gradually developing understandings of the meanings intended by the authors of the literature, which they were able to relate to specific aspects of their own research topics.

The nature of the developing knowledge of the participants discussed here will be related to explaining the nature of their SLA in Section 6.3.2.

Summary and implications of Section 6.2

Section 6.2 discussed the findings of the study in a way to clarify the ontological and epistemological nature of the mental faculties and properties of the participants.

In the study of SLA, the social, cultural approaches have emerged as an influential stream, and consequently their materialist concepts of the mental faculties and properties of second language speakers have become accepted in the field with few obstacles. The general direction of these approaches in their challenge to the

behaviourist and cognitivist notions of the mental world of second language speakers may have appealed to SLA researchers who were developing dissatisfaction with these two approaches (e.g., Flawley, 1997). However, as manifested in the discussion of this section, the social cultural perspective has also exposed issues that are no less serious than those relating to behaviourism and cognitivism.

Alternatively, this study has employed Husserlian realist philosophy as a basis for examining the nature of the mental properties of the participants. As a result, it became clear that the mental world of the participants were not reduced exclusively to the products of social processes. In addition, it could also be clarified that their thoughts, the products of their minds, although being influenced by language and culture, were not contingent on them. Moreover, the realist perspective enabled me to see that, the participants' knowledge of the target literature did not consist merely of subjective, cultural interpretations: it involved achieving accurate understandings of the meaning of the target literature as intended by the authors, which they participants were developing progressively.

6.3 Understanding the nature of SLA in an English medium academic context

This section discusses the nature of the SLA of the participants in relation to their epistemological processes including the thought-language relation and its operation in their knowledge development which was clarified previously in Section 6.2. Section 6.3.1 discusses the mechanisms of the SLA of the participants based on the findings presented in Chapter 5, Sections 5.2.1, 5.2.2 and 5.3. Section 6.3.2 then discusses the academic English competence and criticality of the participants in relation to their SLA. Lastly, Section 6.3.3 considers the importance of developing two extra-linguistic properties – genre knowledge (Bruce, 2008a) and logicity (Husserl, 1970) for using English in an academic context.

6.3.1 Mechanisms of SLA occurring with knowledge development

This section consists of three subsections. In the first two subsections, I discuss the mechanisms of SLA by the participants in relation to their cognitive

processing while undertaking the LR. The last subsection discusses the extent to which the participants' involvement with people contributed to their second language development in reference to Husserl's concept of intersubjectivity.

6.3.1.1 SLA and transcending cognitive acts in the process of negotiating the meaning

Previously in Section 6.2.3, it was discussed that the participants took a realist approach to understanding text, centrally the target literature, in the sense that they sought to understand accurately meaning embedded in text. This subsection seeks to explain the mechanism of the SLA of the participants that occurred through this epistemological processing for understanding the meaning of text, presented in Chapter 5, Section 5.2.2.

Primarily, it needs to be noted, in the extant literature, the type of SLA that this section discusses has been considered as *incidental learning*, indicating that language learning takes place where the primary focus is on meaning rather than language (Hulstijn, 2003). A potential issue is that, since incidental learning is often described also as *unintentional* learning (J.C. Richards & Schmidt, 2010), conceptualising the SLA of the participants as incidental learning could obscure the important role of the intentionality and cognitive effort of the participants of this study that resulted in this type of SLA (see Section 5.2.2). However, as Read (2000) notes, although the central intention is not language learning in incidental learning, the term *incidental* does not merely imply that language is acquired *unconsciously*. In fact, researchers argue that incidental SLA can occur when the person makes conscious, intentional mental effort to understand the forms and functions of language encoding meaning (e.g., Hulstijn, 1992, 2003; Ortega, 2009; Schmidt, 1990). Here thus a critical point can be made: although language learning was not their primary goal, the SLA of the participants was certainly driven by their intended cognitive effort to understand formal features of language as the means to understand meaning clearly.

In regard to this point, the SLA of the participants can be well represented by Widdowson's (1983, 1990) theory of language learning through the negotiation of meaning reviewed in Chapter 3, Section 3.2.2. Specifically, SLA by the participants identified in the findings can be related to his concept of the non-

reciprocal type of the negotiation of meaning, whereby no immediate feedback on the interpretation of meaning from the message producer is provided. Some central notions in this theory of Widdowson are outlined as follows:

- The person is in a situation where he/she intends to negotiate the meaning of text written or spoken in a second language, in the sense that he/she seeks to understand the meaning as intended by its producer.
- The negotiation of meaning centrally involves a perceptual cycle between the existing schema (mental representation) and the meaning.
- The person purposely chooses to use the second language encoding the target meaning as the means for decoding the meaning rather than drawing on the first language resources.
- When there are unknown features of the language encoding the target meaning, the person would seek to know these features for the purpose of the negotiation of meaning.
- Through the recurrent, progressive perceptual cycle of the negotiation of meaning, the person may actually learn (some of) these features.

In the rest of this section, I explain a mechanism contributing to the SLA of the participants drawing on this theory of Widdowson's. In doing so, I also clarify further *how* the participants were capable of undertaking this particular SLA mechanism and eventually developed their knowledge of academic English, in the light of Husserl's (1970) theory of knowledge, centrally the notion of the transcending quality of the mind (see Chapter 3, Section 3.1.4). What makes it possible to explain the SLA of the participants by drawing upon the work of the both scholars is the convergence between them. In particular, there is a considerable congruence between Widdowson's (1983) concept of the perceptual cycle during which "schematic knowledge is recurrently projected and modified" (p. 67) and Husserl's notion of the gradual attainment of knowledge passing through numerous mental representations (see Chapter 3, Section 3.2.2 for a related discussion).

Firstly, it is necessary to understand the participants' cognitive processing for understanding meaning expressed in relation to the framework of the negotiation of meaning. I present Figure 6.1 that diagrams the first round of the perceptual

cycle that the participants appeared to have during the negotiation of the target meaning, which involves transcending cognitive acts.

Figure 6.1: The first round of the perceptual cycle during the negotiation of meaning

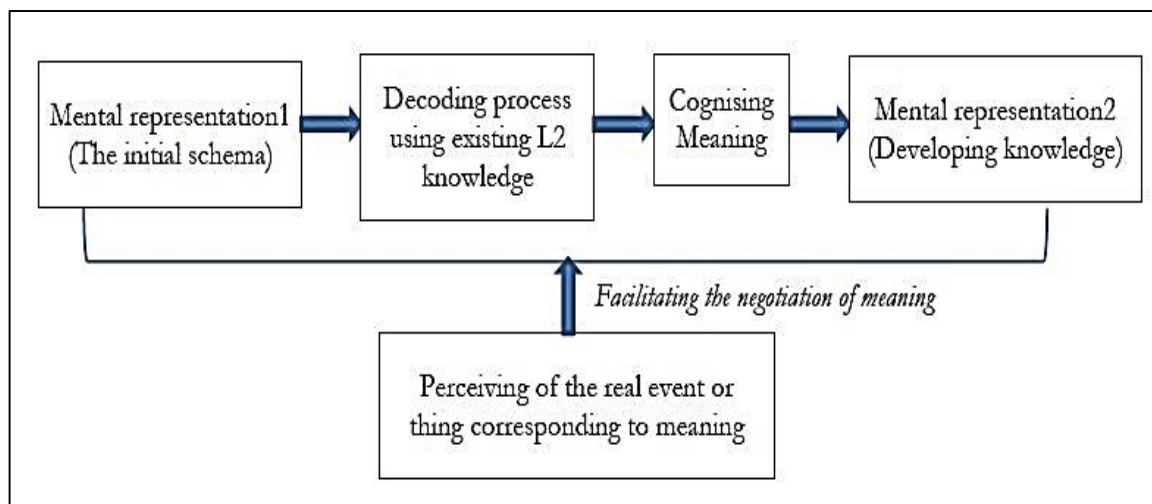
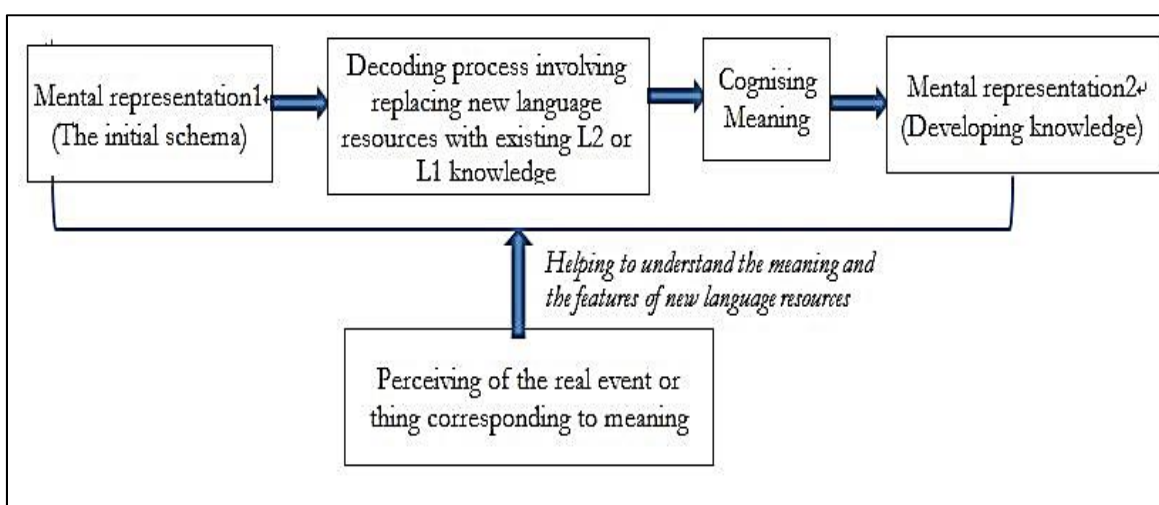


Figure 6.1 illustrates that the participants probably initiated the process of meaning negotiation with their own mental representations or the initial schemata related to the target meaning (Husserl, 1970; Widdowson, 1983, 1990). Through decoding and cognising the target meaning, they would have modified their initial schemata to new mental representations or developing knowledge. What emerged from the data (Chapter 5, Section 5.2.1) was that the participants appeared to undertake the perceptual cycle for the same meaning recurrently. Thus, in each of following rounds of the perceptual cycle after the first round (presented in Figure 6.1), they began a cycle from the mental representation amended from the previous round, and ended it with a further modified representation closer to the target meaning. Throughout this whole processing, it seemed to be necessary for them to engage in transcending cognitive acts centrally in three ways. Firstly, the use of their knowledge systems of English language (both procedural patterns and linguistic resources) for decoding meaning probably required them to move their minds outside of their first language frame (Chapter 5, Section 5.1.4). Developing new mental representations also would involve surmounting previous ones including the initial schemata (Widdowson, 1983; Husserl, 1970). In addition they also sometimes reached out their perceptions to real events or things corresponding to the target meaning to facilitate their understanding of the

meaning (Extracts # 52 in Section 5.2.1 & Extracts 68, 69, 70 & 71 in Section 5.2.3).

Then, when the participants encountered unknown or new language resources while undertaking the negotiation of meaning, the negotiating process appeared to become more complicated, acting as a facilitative force for their SLA. Figure 6.2 represents the early stage of the negotiation of meaning (i.e., perceptual cycling) facilitative for SLA by the participants.

Figure 6.2: The first round of the perceptual cycle with new language sources



As seen in Figure 6.2, where unknown or new language resources were used to encode the target meaning, the participants replaced them with alternative English or equivalent first language resources (e.g., Extract # 40 in Section 5.1.4 & Extract 46 in Section 5.2.1). This replacement seemed to allow them to comprehend the target meaning and newly projected their mental representations of the meaning. What is important here in terms of their SLA is that the replacement resources (both English and the first language), cognised meaning in terms of new mental representations, and perceived real events or things all seemed to help the participants to recognise and understand the forms and functions of the new language resources (e.g., Extract # 52 in Section 5.2.1). Afterwards, the participants seemed to undertake a recursive perceptual cycling of the negotiation of meaning conducive to their SLA, which is illustrated in Figure 6.3.

Figure 6.3: A round in the recurrent perceptual cycle involving language acquisitional processing

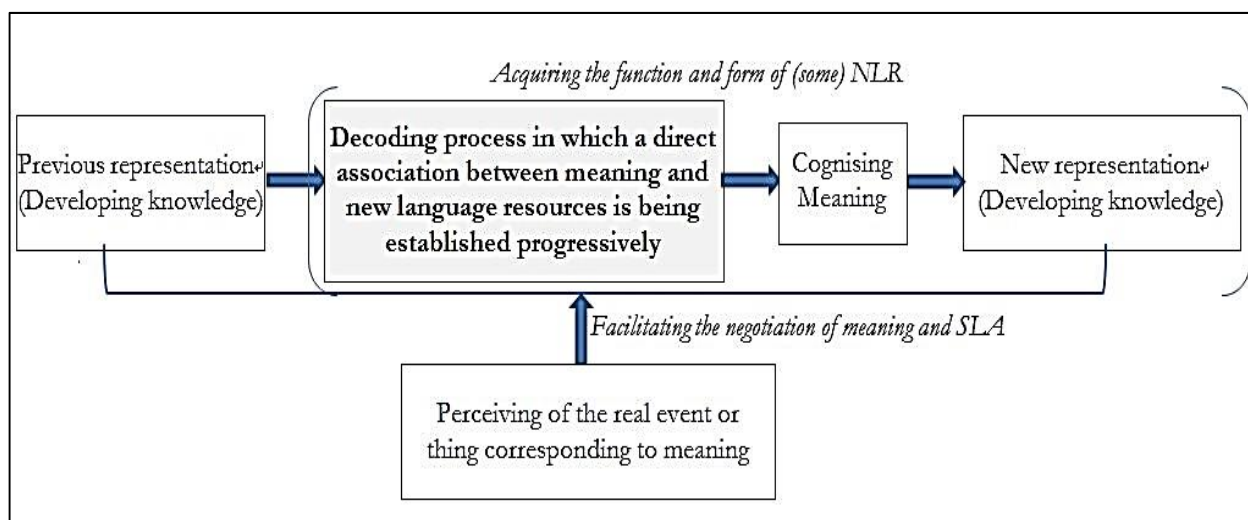


Figure 6.3 indicates that as the participants were gradually establishing a direct association between the new language resources and the target meaning, thereby they needed the L1 and L2 resources that replaced new language resources less and less for decoding meaning. Eventually, they may have reached the state where they did not need the replaced resources almost at all, being able to (re)comprehend the target meaning by means of the new language resources. This point of the participants' cognitive processing appeared to be where the acquisition of some of the new language resources was substantially occurring. In this process, besides the aforementioned transcending cognitive acts facilitative for SLA – moving beyond the first language frame and previous mental presentations and perceiving the reality, one more transcending act seemed to be exercised. This is the overlaying of new language knowledge on existing L1 and L2 knowledge, which they once utilised to replace new language resources, building up instead the direct association between these new resources and the meaning. This particular transcending act appeared to be a necessary step in the SLA that took place, leading the participants to remember and retain the forms and functions of new language resources that they newly understood.

Overall, this section explained the mechanism of the participants' SLA occurring during input based on Widdowson's (1983, 1990) theory of language learning through the negotiation of meaning and Husserl's theory of knowledge. As maintained throughout this thesis, the core of Husserl's exposition of the

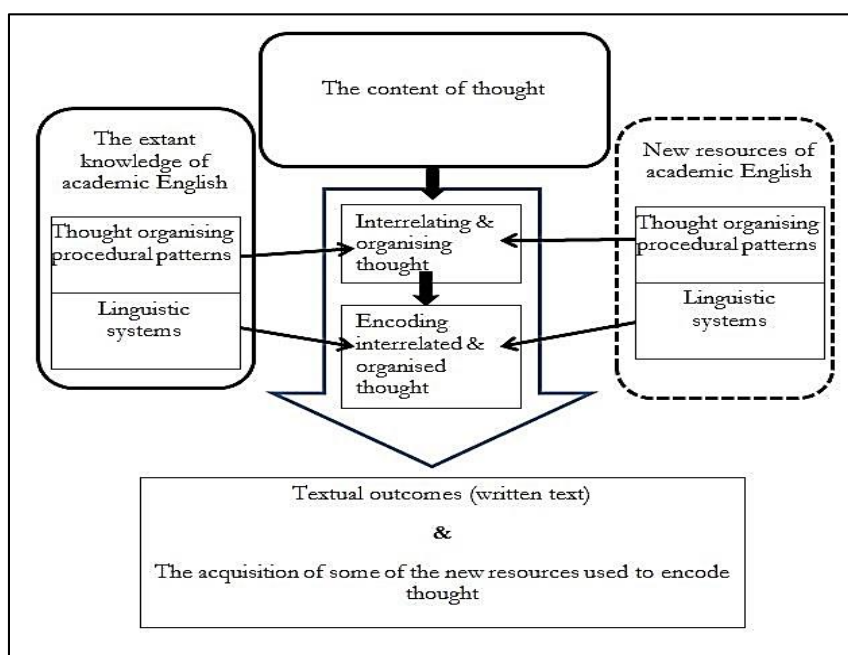
transcending cognitive act is that the person is capable of perceiving the object of knowledge directly without being mediated. This does not mean that the mind is not being mediated at all in the epistemological processes, but it means that, if necessary, the mind can be extended beyond any pre-existing mediating frames, such as cultural and linguistic frames of reference or mental representations, towards perceiving the object. Significantly, what enabled the participants to experience their SLA through the negotiation of meaning seems to be the capability for transcending cognitive acts: being able to extend thought towards the target meaning itself beyond the existing schema (representation) of it; towards the resources of academic English beyond their first language; towards the reality corresponding to the target meaning.

6.3.1.2 SLA and hierarchical thought-language operation

In Section 6.3.1.1, I clarified the SLA of the participants in relation to developing knowledge from input (reading and listening), here I seek to explain their SLA in terms of demonstrating knowledge as output (writing).

To begin with, I present Figure 6.4 diagramming the mechanism of the SLA of the participants occurring through the hierarchical thought-language operation that emerged from the findings in Chapter 5.2.2.

Figure 6.4: The SLA of the participants occurring with expressing thought in text



Section 6.2.2 proposed that the ontology and operation of the thought and language in the minds of the participants seemed to be two separate entities operating hierarchically in the process of creating their texts (e.g., Bruce, 2008a; Chenoweth & Hayes, 2001; Widdowson, 2007). As represented in Figure 6.4, this hierarchical operation of thought and language as two separate entities seems to account for how the participants were able to acquire new language resources of academic English while they were striving to compose LR texts in accordance with the necessary academic requirements. That is, in essence, their SLA appeared to be driven by their need to employ new resources for expressing the content of their thought that they formed in appropriate academic English text. Moreover, conforming to Bruce's (2008a) genre knowledge, the findings indicate that the knowledge of academic English that the participants required and thus acquired involved procedural knowledge and linguistic systems (Extracts # 4 in Section 5.1.1, Extracts # 29, 30 & 32 in Section 5.1.3 & Extracts # 61 & 62 in Section 5.2.2).

Most centrally, the participants appeared to develop new knowledge of academic English for their writing while using rhetorical and linguistic resources that they found from the literature materials (Extracts # 59, 60, 61, 62 & 63 in Section 5.2.2). This learning and using of the language used by the authors of the literature, however, was not necessarily plagiarising these authors' work, because what the participants drew on from others' texts is not the ideas of these authors but language forms to encode these ideas. In addition, the participants also appeared to learn new rhetorical patterns and academic vocabulary while revising and improving their texts by incorporating the feedback and input from other people, such as their supervisors (Section 5.3). This learning of academic English through the process of revising or improving their texts was, as the participants stated, not exactly transforming their ideas. Instead, it was more of reorganising the subject content knowledge that they had, or refining their writing while maintaining their original ideas (Extracts # 54, 55 & 56 in Section 5.2.2).

The significance of the findings of this study revealing the SLA of the participants in relation to the hierarchical thought-language operation during output becomes evident when they are compared and contrasted with Swain's work, which has investigated SLA extensively in that aspect (e.g., 1995, 2000, 2006a & b). As a

Vygotskian SLA researcher, Swain is opposed to the idea that thought is independent of language, and proposes Vygotskian conceptions of second language learning. Specifically, by reworking her own *output hypothesis*, Swain developed the concept of *linguaging* (Swain, 2006a & b & Swain et al., 2009), which she defines as “the process of making meaning and shaping knowledge and experience through language” (2006a, p. 89). According to her, L2 learning basically occurs through linguaging that the learner undertakes in the process of speaking and writing. There appear to be mainly two effects of linguaging. Firstly, it “plays critical roles in creating, transforming, and augmenting higher mental processes [i.e., thinking]” (2006b, p. 99). In relation to this effect, she also asserts that “verbalisation changes thought” (p. 110). Thus, applying this first effect of linguaging, SLA can be regarded as the process of “creating, transforming and augmenting” thought in L2 (p. 99). Then as the other effect of linguaging, Swain proposes that, through linguaging, thoughts “become available as an object about which questions can be raised and answers can be explored with others or with the self... linguaging is a process which creates a visible or audible product about which one can language further” (2006a, p. 97).

The second effect of linguaging, which Swain proposes, accords with the realist position, and is consistent with the findings of the study. That is, by being expressed in language (particularly in written language), a person’s thought becomes a fixed, sense-perceptible object (Moreland & Rae, 2002). Then this objectified or expressed thought of the person can be the object of his/her own or others’ knowledge. Such a phenomenon was in fact experienced by the participants of this present study (Extracts # 45, 49, 50, 51, 64 & 66 in Section 5.2.2), which appeared to facilitate their acquisition of new rhetorical and linguistic knowledge. Similarly, in the research studies that Swain conducted on her own or with other researchers (see Swain, 2006a & b; Swain et al., 2009), the participants certainly benefited from expressing their thought in spoken or written language in relation to thought becoming a perceivable object by means of language. Therefore, it seems that expressing thought in language facilitates one to develop both extra-linguistic and linguistic knowledge.

However, the findings of this present study as well as those of the studies that Swain herself reports appear to provide less support for the first effect of

linguaging that Swain claims – linguaging creates and changes thought. For example, a finding reported in Swain (2006a), which she presents as an example indicating the first effect of linguaging, rather seems to negate this effect:

Our participants [have written] a story... We then reformulate the stories the students [participants] have written. In reformulating the stories, the intent has been to *not* change the meaning of what the students wrote, but to change the form of their writing so that it would be acceptable to a fluent user of the target language. We then ask the students...to notice the differences between their story and the rewritten one...they later rewrite what they had originally written, incorporating the substance of what they had linguaged about. (p. 98)

As Swain herself states, the students in the studies were able to change the appropriateness of language of their writing while retaining the original meanings of their thought. This process, therefore, does not appear to exemplify linguaging as creating and transforming thought in the way that Swain argues, but rather one in which the content of intended thought is expressed in different language forms without its meaning being changed significantly. In effect, this appears to be what the participants of the present study experienced. What should be noted here is, as Moreland (2012) points out, the fact that the same thought can be encoded in different expressions or languages evidences that thought is not linguistic, and it is not created by the use of language (see Chapter 3, Section 3.1.6). In this regard, the SLA that the students in Swain's study and the participants of this study experienced seemed to be not creating and transforming their thought in their second language, but acquiring new resources to express their thought appropriately in their own contexts.

Again, I wish to emphasise that, for the participants of this study the very struggle to express their ideas in academically appropriate ways, while not changing the meanings that they intended, seemed to drive them to acquire new linguistic and rhetorical resources. This convinces me to argue that the SLA of the participants was not a process of becoming able to create their thought in a second language, but one of expanding their second language systemic/rhetorical knowledge that allowed them to express their (extra-linguistic) thought accurately and appropriately. The implication of this argument is critical in terms of understanding the cognitive competence and capability of second language users.

In particular, it provides a basis for resisting the claims of the SCT researchers: who, on one hand, suggest that SLA is gaining a new tool to create and regulate thought; and on the other argue that this goal of SLA is hardly attainable and (thus) second language speakers seem to be unable to think in their second language (see the third issue in Section 6.2.2). For the participants of the study, SLA appeared to relate to their becoming successful communicators of knowledge and thought in a second language context, which is not exactly the same as becoming able to think in the language

6.3.1.3 SLA and intersubjectivity with other community members

In this subsection, I discuss the involvement of the academic communities of the participants in their SLA, which was presented in Chapter 5, Section 5.3, in terms of Husserl's concept of intersubjectivity. This centrally involves clarifying the ontology of academic English (including its procedural patterns and linguistic systems) and whether the involvement of their communities indicates that their SLA was an outcome of social processes.

According to Husserl (1970), intersubjectivity refers to the state in which a number of people perceive or cognise the same object. Husserl proposes intersubjectivity as one of the three conditions for achieving objective knowledge for the reason that, by having intersubjectivity, people can check, correct and validate each other's knowledge of the object (Chapter 3, Section 3.1.4). As discussed in Section 6.2.3 previously, the participants appeared to achieve intersubjectivity with their community members in terms of developing their overall knowledge of the target literature. Then the findings reported in Chapter 5, Section 5.3 indicate the intersubjectivity in their knowledge development particularly in relation to developing their knowledge of academic English. That is, by acquiring the academic English used by their academic community members (Chapter 5, Section 5.2.1), the participants' knowledge of the language displayed in their draft writing was checked and corrected by some of these members to some extent (Section 5.3).

Husserl stresses that what fundamentally permits intersubjectivity is the ontology of objects of knowledge existing independently and (thus) being accessed and cognised by many people and, for him, language is also one type of object of

knowledge. Therefore, it seems to be possible to understand the systemic/procedural resources of the academic English that the participants acquired as an object or formal property in a collective term, cognised by people in English-medium academic contexts. In actuality, the approaches to academic English that the participants undertook in their effort to learn it show that they treated these resources as an object or a formal property, of which they developed their knowledge (Extracts # 59, 60, 61, 62 & 63 in Section 5.2.2).

Conceptualising language as a formal property of a particular culture also has been directly and indirectly suggested in the extant literature (e.g., Bachman, 1990; Bruce, 2008, 2011; DeKeyser, 2003; Doughty & Long, 2003; Gass & Selinker, 2001; Norris & Ortega, 2000; Read, 2000, 2007; van Patten, 2004; Widdowson, 1983, 1989, 1990; Wray, 2002). For example, Widdowson (1990) notes, “Creativity is only possible in reference to established convention... The ability to adjust linguistic behaviour contingently to meet particular communicative requirements presupposes a knowledge of a general rules and conventions” (pp. 153-154). Similarly, Bruce (2008a) suggests that exercising “an authorial voice by individuated and innovative use of the various aspects of discourse knowledge” requires “being able to understand and appropriately draw on various types of systemic knowledge” (p. 10).

An issue in considering language as a formal property is that, this conception has been challenged by the social, cultural SLA approaches (see Atkinson, 2011c). For example, Norton and McKinny (2011) argue that SLA is not “a gradual, individual process of internalizing a neutral set of rules, structures and vocabulary of a standard language” (p. 28). Similarly, Lantolf and Thorne (2006) contend that “grammar is not a pre-existing closed system of formal properties, but is emergent in dialogic activity” (p. 9). In fact, there is no decontextualized standard language, and linguistic systems including grammar rules and a language changes over time, to which people using the language contribute (Widdowson, 2003). However, this cannot be a justification for denying that systemic resources exist as a relatively stable structure or set of formal properties and (thus) they can be shared intersubjectively. Contradictory to the aforementioned claimed about linguistic rules, Lantolf (2011) stresses the importance of “explicit knowledge of the relevant features of the L2”, suggesting that they should be introduced to language

learners by external agents (e.g., teachers) (p. 38). In addition, Norton (2000) reported that her participants invested in the target language and gained confidence when they came to have knowledge of and ability to use it.

By acquiring the academic English communally-shared within their academic communities, the participants of the present study were able to receive feedback and comments on their drafts from their immediate academic community members. This was, in Husserl's conception, achieving another aspect of intersubjectivity in developing their knowledge of academic English. As the participants themselves acknowledged, the intersubjective feedback and comments provided by other community members helped them to amend, repair and further develop their rhetorical and linguistic knowledge to be closer to prototypical patterns and systems (Extracts # 4 in Section 5.1.1, Extracts # 79, 81, 83, 84 & 85 in Section 5.3 & Extract # 90 in Section 5.4.3). Thus, the help and support of other community members seemed to play an important role for the process of the SLA of the participants.

Nevertheless, this supportive role of the communities of the participants in their SLA may not be evidence indicating that the SLA of the participants is a product of social processes. Instead, aspects involved in the intersubjectivity with other community members here seem to suggest rather that their acquisition of academic English was the outcome of their own, individual cognitive processing and efforts. Firstly, the participants' knowledge of the language was able to be checked by others, because they *firstly* developed it by means of their own cognitive processes (Sections 5.2.2 & 5.2.3). This seems to explain the reason why most of the participants appeared to experience improvement in their academic English although others' support in relation to their language learning was irregular and even seemed to be insufficient to be considered as step by step guidance (Section 5.3). Secondly, certainly, sources for the knowledge of the participants (including the knowledge of academic English) were provided by others. However, for the most part, their actual knowledge acquisition appeared to occur through their own selective, intentional uptake of some of those sources, rather than merely by being in a situation where such sources were made explicitly available (Section 5.1.2). Similarly, what made an effect of amending the participants developing knowledge of academic English seemed to be not

merely that the feedback was given to them, but more crucially that they selectively accepted and used it to further develop their knowledge.

In summary, by developing knowledge of linguistic/procedural resources of academic English shared in their academic communities, the participants' were able to receive comments and feedback from other community members on their knowledge of the language. This support from their community members helped them to correct and further develop their knowledge of academic writing to a certain extent. However, the data of the present study seemed to suggest that their SLA was an outcome of their individual mental processing rather than that of inter-personal processes.

6.3.2 The scope and nature of SLA and competence in using academic English

From the discussions in Section 6.3.1 previously, it was suggested that the academic English that the participants acquired involved not only linguistic systems but also thought-structuring patterns used to organise extended text. Based on the analysis of five participants' LR texts in Chapter 5, Section 5.4., this section discusses further expanding the scope of SLA, by including elements and areas that constitute academic English. In so doing, I seek to understand the participants' competence in using academic English as second language speakers of the language. In addition, I discuss the implication of the expanded scope of SLA by the participants in relation to thought and language in their minds being operated as two separate entities.

To identify extra-linguistic areas involved in the participants' academic texts as a trace of their use of academic English, I drew on Bruce's (2008a & b) concepts of social genre (SG) – conventionalised classification of texts – and cognitive genre (CG) – prototypical, thought-organising patterns usually applied to segments of texts (see Chapter 3, Section 3.2.3). These SG and CG concepts provide a framework for identifying the nature and features of extra-linguistic knowledge required for using language in English-medium academic contexts.

The findings presented in Chapter 5, Section 5.4 indicated that the knowledge of and ability to use SG and CG elements is critical for achieving textual coherence, and thus for expressing and communicating thoughts including critical and logical ideas effectively. These findings appeared to confirm the central notion of Bruce's (2008a) theory of genre knowledge that one can bestow overall coherence to his/her English academic prose by incorporating academic SC and CG genre elements. For example, the participants used metatext and section headings, which are some elements of a LR text as a social genre (Extracts # 90 & 91 in Section 5.4.1). By means of this, they were able to achieve the coherence of the whole text to a certain extent. In addition, the LR texts of the participants appeared to achieve a local, internal coherence when they were written in accordance with academic cognitive genres (CGs) to achieve more general types of rhetorical purpose, such as to argue, explain or discuss (Extracts # 92 to 98 in Section 5.4.1). For example, the LR text of Tram who used more prototypical CG elements appeared to be more coherent and better structured than the LR texts of the other four participants. Within the LR texts of the five participants, the parts that were organised in terms of CGs were found to be much more coherent than the rest of the text. In addition, their use of the two types of rhetorical device, the Concession-Contraexpectation interpropositional relation and attitude markers, helped the participants effectively communicate their critical thinking (Bruce, 2014), to a certain extent (Extracts # 99 to 102 in Section 5.4.2). Moreover, when CG patterns are not incorporated, the content of texts (i.e. the participants' thoughts) that can be accepted as logical was still not understood clearly (Extracts # 103 & 104 in Section 5.4.3). This again suggests the importance of thought-structuring genre knowledge in the context of using academic English.

Based on this analysis, this study suggests that, in the concept of academic English as a language, extra-linguistic thought-organising conventions (i.e., SG and CG knowledge) need to be embraced along with linguistic systems. This suggestion is not new and aligns itself with genre approaches in the fields of *English for Specific Purposes* (ESP) and *English for Academic Purposes* (EAP) (e.g., Flowerdew & Peacock, 2001; Hyland, 2004, 2006, 2009; Swales, 2004). These genre approaches have promoted the importance of second language speakers of English having knowledge and awareness of academic genres. In fact,

the perspectives of Widdowson (1983, 1990) and Bruce (2008) that this study has drawn upon to understand the participants' SLA are broadly part of genre approaches to language learning and use in the areas of ESP and EAP. Here what I seek to suggest is incorporating genre knowledge elements in the concept of academic English, and subsequently in the scope of second language acquisition. Firstly, academic English as the language that the participants of the study acquired can be understood as the concept that encompasses both extra-linguistic SG and CG elements and linguistic systems. Then it can be derivative to consider the participants' acquisition of academic English or their SLA in their academic context as developing competence (knowledge and ability) in using both extra-linguistic and linguistic elements of the language.

The identification of SLA by the participants as developing such competence may require clarifying further the features of this competence. As reported in Sections 5.2.1 and 5.2.2, the participants were engaged in the acquisition of new extra-linguistic and linguistic resources of academic English by using it, and their central use of the language was the comprehension and composition of extended academic text (both written and spoken). More specifically, they used the language in the process of understanding the meaning embedded in text. The negotiation of meaning centrally involved intentional cognitive processing of developing existing schemata into actual knowledge of the target meaning, through which they appeared to develop their knowledge of new resources of the language. In addition, they also used the language in the course of expressing their ideas in the form of academic text through a hierarchical thought-language operation, which, again, seemed to conducive to their SLA. Considering these patterns of their use and learning of academic English, the central feature of the participants' academic English competence, therefore, may be understood firstly by means of the concept of discourse competence – being able to process and create extended text – which Bruce (2008a) identifies as the central element of communicative competence. Use of discourse competence could also be explained by Widdowson's (1983) concept of capacity – being able to use a language, and further acquire new resources of the language through its use (see Chapter 3, Section 3.2.4).

In addition, I seek to clarify this expanded concept of SLA as developing competence in using both extra-linguistic and linguistic resources in relation to the philosophical basis of this present study, particularly to the notion of the thought and language in the minds that function as two separate systems. In reference with the findings that thought and language in the participants' minds are two separate entities, I sought to explain some mechanisms of their SLA. One central suggestion regarding these SLA mechanisms is that the content of the participants' thought was not the products or the outcomes of their SLA. Instead, I argued that the content of their thought seemed to be extra-linguistic, and their SLA seemed to occur in response to their need to encode this extra-linguistic thought using language resources that are academically appropriate. This principle being that underpinned the clarification of the participants' SLA mechanisms needs to be sustained and emphasised here in considering the acquisition of thought-structuring genre knowledge in the scope of SLA. That is, the content of the participants' thought may not what was created, transformed or augmented as the consequence of attaining genre knowledge as part of the acquisition of academic English.

The literature review in Chapter 2, the social, cultural approaches to SLA (based on Vygotskian theory of thought and language) suggest that SLA involves creating and regulating thought in second language. Thus, for example, Atkinson (1987) argues that non-Western second language speakers of English may develop critical thinking by learning English language because criticality or critical thought is what is embedded in the language (see Chapter 3, Section 3.2.5). In a similar vein, some cultural relativist genre researchers promote the notion that developing genre knowledge of English would attaining new ways of thinking, accommodating to certain logic exclusively pertaining to English language (e.g., Crismore, Markkanen, & Steffensen, 1993; Gumperz & Levinson, 1996; Hill & Mannheim, 1992; Hyland, 2005, 2009; M. Johnson, 1987; Kaplan, 1972, 1987; Kramersch, 2004).

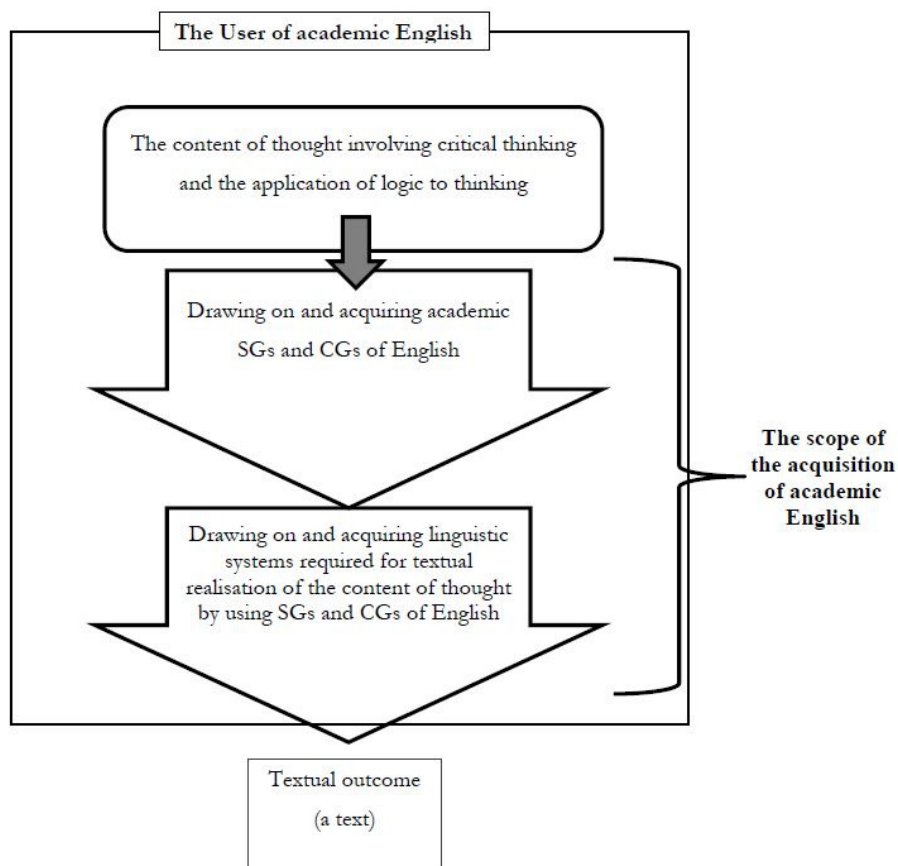
However, the findings of the present study seem to refute these Vygotskian or cultural relativistic notions of thought and language in relation to acquiring second language including second language genre knowledge. Overall, the

content of the participants' thought did not appear to be created or shaped by acquiring academic English, as already explicated in the previous sections in this chapter. In addition, the findings in Chapter 5, Sections 5.2.3 and 5.4 appear to indicate that the criticality and logicity of the participants seemed to be autonomous from their academic English competence.

In relation to their criticality, the participants acknowledged that they should develop subject content knowledge of their own disciplinary field to be able to be critical (e.g., Extracts # 76 & 77 Section 5.2.3). Then the analysis presented in Section 5.4.2 suggests that expressing critical thinking appropriately requires SG and CG knowledge. Nevertheless, their critical thinking ability itself as being able to make evaluative judgements against certain criteria appeared to be what they possessed as part of their human nature. In addition, the data presented in Extracts # 68 to 71 in Section 5.2.3 and Extracts # 102 and 103 in Section 5.4.3 seemed to reveal that their application of logic to their thinking also appeared not to be the outcome of the acquisition of the rhetorical thought-organising conventions of academic English. Particularly, as seen in Extracts # 102 and 103, the content of thought (text) can be accepted as logical even when the competence in using English genre knowledge was underdeveloped, and thus the thought was not so effectively communicated. This implies again that the independence of thoughts including those to which logic is properly applied from academic English rhetoric.

These findings conform to the realist conception of this present study that thought, in general, is not completely contingent on language, and also to the suggestion that universal logic is what one can apply to his/her thought before encoding it in any language (Husserl, 1970; Willard, 2003). When referring to this Husserlian notion of thought and language, and logic, the SLA of the participants in terms of the relation of thought and language in their minds and the scope of such SLA can be portrayed as the diagram in Figure 6.5.

Figure 6.5: SLA by the participants in terms of its scope and thought and language in their minds



Therefore, overall, the case of the participants seemed to suggest that the acquisition of academic English is developing competence in using both extra-linguistic and linguistic elements of the language through cognitive processing and endeavour to encode thought appropriately in their academic context. This suggestion involves opposing the notion of the SCT approach to SLA and that of the cultural relativist genre studies that define the acquisition of a language and its rhetorical convention as creating and shaping the content of the second language user's thought.

Summary and implications of Section 6.3

Section 6.3 sought to understand the nature of the SLA of the participants by discussing mechanisms of their SLA, their academic English competence and criticality in relation to their SLA, and the necessity of considering developing genre knowledge as part of SLA in academic contexts.

Section 6.3.1 discussed the mechanisms of the SLA of the participants that emerged from the findings in terms of three aspects. Firstly, as Widdowson (1983, 1990) proposes, the participants appeared to learn new linguistic/procedural resources through negotiating the target meaning embedded in text. Crucially, their focused, meaning-uncovering intentionality during the process of the negotiation of meaning appeared to be considerably facilitative of the process and their acquisition of new academic English. Secondly, the SLA of the participants also appeared to be driven by their need to develop new text-creating resources that arose from the hierarchical thought-language processing for expressing their ideas academically appropriately. Thirdly, by acquiring the academic English that is a formal property of their academic communities, the participants were able to receive comments and feedback on their language from other community members, with which they modified and improved their developing knowledge of the language. This intersubjective support from their academic communities appeared to play an important role for the SLA of the participants, but this did not seem to mean necessarily that their SLA was a product of inter-personal social processes.

Then lastly, Section 6.3.2 discussed genre knowledge (Bruce, 2008a) as a central element of competence in using language in an academic context, based on the analysis of five participants' LR texts. In this section I challenged the cultural relativist idea that logic is part of the rhetoric of a particular culture and thus SLA in English-medium academic contexts involves developing ways of thinking in, and logic of English language. I instead proposed that thought is not created by means of language and SLA seemed to occur in cognitive processing and effort to express thought including critical and logical thinking by using appropriate language resources in the contexts.

The most significant point of the discussion of this section is that SLA in an academic context appears to occur through personal commitment and endeavour to develop knowledge and language, which centrally involves intentional cognitive processing. This intensive, intentional nature of SLA seems not to be adequately captured by the social, cultural conceptions, such as SLA as an end product of inter-personal processes, socialisation, or biological or ecological adaptation to social, cultural environments.

6.4 Conclusion

Chapter 6 discussed the findings of the present study through the lens of the conceptual framework established in Chapter 3. It also extensively argued against the postmodern social constructivist paradigm of the social, cultural approaches based on the discussions of the findings. Overall, the discussion was undertaken in two areas. In Section 6.1, I considered the ontology and epistemology of the participants – their minds and cognitions, thought-language relation in their knowledge and their knowledge from a realist perspective. In the following Section 6.2, I sought to explain the nature of the SLA of the participants in terms of some of its mechanisms, scope and the language user's competence in English-medium academic contexts. The section also suggested that developing genre knowledge may need to be included within the scope of SLA in an academic context.

In the following conclusion chapter, Chapter 7, I will summarise the key arguments of the discussion chapter, address the limitations of the study, and suggest the methodological, theoretical and pedagogical implications of the study.

7 CONCLUSION

7.0 Overview

This final chapter concludes the study. Firstly, Section 7.1 presents the key arguments of the discussion of the findings. Then Section 7.2 discusses the limitations of the study. Section 7.3 following discusses the theoretical, methodological and pedagogical implications of the study. Lastly Section 7.4 concludes with some suggestions for future research.

7.1 Key arguments in the discussion of the findings

The discussion of the findings of the study in Chapter 6 was based on the realist theoretical framework established in Chapter 3. In the following points, I summarise key arguments presented in the discussion chapter:

- ontological and epistemological features of the participants displayed in their undertaking the LR (Section 6.2);
- some of underlying mechanisms of their SLA, particularly in relation to processing the target literature and creating their own LR texts (Section 6.3.1); and,
- genre knowledge as an area in the scope of SLA in academic contexts (Section 6.3.3).

Firstly, drawing on Husserl's (1970) theory of knowledge, I argued that the personal intentionality of the participants led them to engage in social processes, selectively focus on knowledge sources, and develop their academic knowledge and language. This argument involved the reasoning that, since intentionality is the core quality of their minds, their cognition (the function of the mind) cannot be viewed solely as a product of their social interactions. In addition, the participants' thought, the outcome of their cognitive processes, although expressed in language, appeared not to be completely contingent on any particular language and culture. Rather, it appeared to regulate language use and extend beyond both linguistic and cultural frames. Thus, it seemed that their knowledge of the target literature did not merely consist of subjective interpretations based on their own cultural frames, but involved more centrally accurate understandings of

the reported knowledge and views of authors under review. The realist conceptions of the ontology and epistemology of the participants that this study employs diverges from those of the social, cultural approaches, which has been already extensively discussed.

Then, I sought to clarify some of the underlying mechanisms of the SLA of the participants that occurred through comprehending the target meaning embedded in text (input), and through producing text (output). Overall, the SLA of the participants seemed to occur as the outcome of their own intentional cognitive processing and endeavours, which they constantly undertook no matter whether participating in social interactions or not. Firstly, I suggested that the SLA of the participants in relation to input seemed to confirm Widdowson's (1983, 1990) notion of language learning through the negotiation of meaning. I further argued that their SLA, through the negotiation of meaning, centrally involved the transcending quality of their minds (Husserl, 1970) – iteratively perceiving the meaning embedded in text and subsequently revisiting and revising initial schemata until they correspond to the meaning of the texts under review. In addition, the mechanism behind the SLA of the participants occurring in relation to output was explained. In essence, the hierarchical operation between the content of their thought and their knowledge of academic English (Bruce, 2008a), which seemed to be two separate entities (Willard, 1984), appeared to be the key factor that facilitated their SLA. That is, in this thought-language operation, the participants needed to draw on new procedural and systemic resources of the language in order to express their ideas in accord with academic conventions, and thereby they seemed to acquire some of these new resources.

Moreover, I discussed the importance of developing extra-linguistic elements of academic English competence based on the analysis of five participants' LR texts. As Bruce (2008a, 2011) clarifies, genre knowledge – social genre (SG) and cognitive genre (CG) knowledge – seems to be critical for achieving overall coherence and communicability of a text as English academic prose. The importance of genre knowledge was revealed more clearly with the finding that even though the content of thought may be frame an underlying and logic and sense of criticality, it still could not be communicated successfully when genre knowledge is underdeveloped. Based on this significant role of competence in

using genre knowledge, it was suggested that acquisition of genre knowledge needs to be considered within the scope of SLA along with acquiring linguistic resources.

Section 7.2 following discusses the limitations of the study, and in Section 7.3, I discuss theoretical and pedagogical implications of the study based on these key arguments in the discussion of the findings presented in this section.

7.2 Limitations of the study

This section discusses the limitations of the present study.

Firstly, a limitation arose from the open-ended nature of this study as qualitative research, which could be advantageous and disadvantageous simultaneously in seeking a robust investigation of second language acquisition (Dörnyei, 2007). The theoretical framework of the study was developed along with data collection and analysis, and themes emerged from what participants disclosed or revealed somewhat spontaneously during unstructured interviews, rather than from responses to structured interview schedules generated in accordance with the theoretical framework established prior to the field research. This inductive approach to data collection and analysis was intended and can be considered as a positive aspect of the study using a qualitative methodology. However, undertaking this open-ended, bottom-up approach did not allow me to engage in a more in-depth examination of some important findings that emerged at a very late stage of the investigation. For example, the conceptualisation of the participants' communities from the perspective of their SLA occurred towards the completion of this thesis. As a result, I could make preliminary *ad hoc* claims based on a small sample of data, not being able to undertake further a corroborating examination of this issue.

Investigating SLA using a qualitative methodology has created another condition that could be considered potentially as a limitation of the study. From the accounts of the participants, it emerged that the academic English that the participants appeared to acquire consisted not only of linguistic systems but also thought-structuring rhetorical patterns. Based on this finding, I identified the two extra-linguistic elements of academic English competence, the development of which

may be considered within the scope of SLA. However, examining the nature of SLA in an inductive way did not involve tracing changes in the participants' knowledge of particular features, such as through the use of pre-and post-test of the participants. That would, of necessity be the object of a subsequent study perhaps using a somewhat different methodological framework.

In addition, a further limitation relates to the newness of the research paradigm of the present study within the field of SLA. As stated elsewhere in this thesis, phenomenological realism is an established philosophical school of thought. Thus, the application of this philosophical orientation as an alternative research paradigm that this study has undertaken could potentially be a positive addition to the field. However, due to the fact that little previous SLA research was conducted based on phenomenological realism, the present study presented some particular challenges. Most centrally, in explaining the nature of the SLA of the participants, it involved a process of applying general ontological and epistemological principles suggested by philosophers to the particular phenomenon of the second language learning and use of the participants. Given this exploratory nature of the work, the conduct of the present study should be considered as initiating a research space that requires further investigations and attestations.

Furthermore, given that the findings of the study emerged from a case study of only eight participants, the research outcomes of the study can be considered indicative rather than conclusive.

The limitations of the study discussed in this section are considered when suggesting future research in Section 7.4.

7.3 Implications of the study

7.3.1 Theoretical implications

This section discusses the theoretical implications of the present study.

A theoretical value of the present study may be the explicitness of its resistance to the existing SLA paradigms, centrally to the social, cultural SLA stream, clarifying the nature of SLA from a particular philosophical orientation, phenomenological realism. In the extant literature, SLA researchers are concerned

that there is “a great deal of debate and disagreement...over questions [about] the nature of language use, language learning and their interrelationship” (Batstone, 2010, p. v). They seem to perceive this discrepancy among different approaches as a problem driven by a particular emphasis on either the cognitive or the social aspects in researching and theorising SLA (e.g., Batstone, 2010; Hulstijn et al., 2014; Kramsch, 2002b). Then, some of them propose, as resolution of this problem, to take a balanced view between the cognitive and the social, or to blur or cancel the distinction between the cognitive and the social, instead conceptualising them as integral to a holistic system (e.g. Atkinson, 2011b; Batstone, 2010; Kramsch, 2002a & b; Lantolf & Thorne, 2006; Larsen-Freeman, 2011). This study, while acknowledging the importance of examining both the cognitive and the social, began with the suggestion that taking an imbalanced approach to these two dimensions of SLA may not be what fundamentally gives rise to disagreement among the different SLA approaches. It may have been created by the fact that, based on their own axiomatic beliefs, the different approaches provide different definitions and conceptions of the actual agents and mental and social events involved in language learning. Then the issue of divergence among the different SLA approaches, rather than being a problem, may be a natural manifestation of a plurality of epistemologies in the field (Ortega, 2011, 2012). Thus, instead of seeking a balance between the cognitive and the social, this study has undertaken the approach of explicating central concepts fundamental to SLA, such as the mind, cognition and social processes based on its philosophical principles.

In addition, a potential contribution of the present study to the field of SLA seems to be that its realist perspective offers a way of achieving commensurability and knowledge communication across different approaches within the field. While SLA researchers welcome diversity in epistemologies (Lantolf, 1996; Ortega, 2011, 2012), they are also concerned about incommensurability among different SLA paradigms and theories (e.g., Dunn & Lantolf, 1998; Hulstijn et al., 2014). In this regard, this study firstly aligns itself with Ortega’s (2011, 2012) argument that commensurability in the field of SLA is achievable. She states:

My own preference (Ortega, 2011) is to affirm commensurability as an attainable and valued goal ... by arguing that ‘different perspectives can yield different forms of rational access to the independent truth’ (Kukla, 2006, p. 87) and that perspectival difference is necessary and of scientific value. (2012, p. 211)

Thus, in her argument it is implied that a fundamental condition for commensurability in the study of SLA is the existence of the independent truth (reality), which different approaches can equally access to and investigate. In addition to Ortega’s argument, based on the realist perspective of the study, it can be suggested that the goal of the commensurability among the different SLA approaches can be further achieved when they are assessed and evaluated against this independent truth and reality. Kukla (2006) states:

[E]pistemic practices, in order to count as epistemic, are necessarily bound by *two* sets of norms: the norms of justification and the norms of truth, or fidelity to the objects of inquiry. What makes the former norms epistemic in the first places is that they are held to the tribunal of the second. But this will be so only if our doxastic judgements are open to correction and confirmation from the independent world they seek to capture (p. 81).

The authority of this evaluating task is not necessarily limited to theorists or researchers: anybody can, and should be able to exercise it as long as the person has a sufficient understanding of those approaches and actual experience relating to second language acquisition. In this way, commensurability and communicability across different epistemologies and approaches in the field can be established upon the verified and validated elements of their work, avoiding the two extremes – uncritical acceptance of conflicting notions or concepts and indifferent disregard of other approaches’ study outcomes.

Moreover, phenomenological realism as a particular research paradigm, and the present study as SLA research based on that paradigm, may be considered by people whose worldviews and life philosophies do not accord with any paradigms currently available in the field of SLA. In fact, despite the apparent epistemological plurality, when looking at their fundamental ontological and epistemological axioms, the different SLA approaches seem to belong to one of three schools of thought, namely behaviourism (empiricism), cognitivism (rationalism) and social, cultural orientation (postmodernism or social constructivism) (see Chapter 2). Thus, it would be still possible for one not to find

satisfaction with any of the extant philosophical orientations in the field. I propose that the realist paradigm of the study as a further alternative. Phenomenological realism, although it may be little known to the field of SLA, is an established philosophical school of thought, that may equip the researcher who has a realist worldview with a philosophical foundation for his/her research (see Chapter 3, Section 3.1). In addition, the clarification of the ontology and epistemology of second language speakers and the nature of their SLA in an academic context that this study presents may help to inform the investigation of SLA when considering the realist paradigm.

7.3.2 Methodological implications

The methodological implications of the present study are threefold.

Firstly, from the outset of this thesis, I have expressed a concern about the impression given by some research methodology resource books in applied linguistics, which appear to assume that any researcher performing qualitative research would employ the social constructivist paradigm (e.g., Croker, 2009). Here, based on the methodological practice of this study, I again argue that the real issue in the relationship between a research paradigm and methodological decision lies, not in making a choice between quantitative and qualitative types of data, but in how data are to be treated and analysed. In regard to this point, Richards (2009b) states, “The challenge lies more in deciding what counts as a core TRADITION, STRATEGY OF INQUIRY, ANALYTIC FRAMEWORK, or APPROACH, all terms that are used to label the different territories within QR [i.e., qualitative research]” (p. 150). In addition, recently, it is also noted that SLA researchers with different paradigmatic orientations actually learn methodological insights from one another (Hulstijn et al., 2014). Therefore, I suggest that researchers should be able to make their methodological choices beyond the somewhat imposing notion that qualitative research in applied linguistics would naturally involve elements of social constructivism.

This point can be related to another potential methodological value of this study. Specifically, this study has questioned the explanations of the nature of qualitative data provided by some qualitative researchers in applied linguistics. For example, Talmy (2010) argues that the participants’ experiences are co-constructed by the

researcher and participants during the process of data collection (in his article, specifically during interviewing). Thus, according to him, qualitative interview data are not “reports which reveal truths and facts, and/or the attitudes, beliefs, and interior, mental states of self-disclosing respondents” but “accounts” of those “coconstructed between interviewer and interviewee” (p. 132). Although clearly aware of the possibility that data could be misinterpreted and that participants could be manipulated by the researcher, the present study does not view the data gathered as co-constructed. Talmy’s notion represents the social constructivist researchers’ view, which can be respected as one of the qualitative research traditions. However, it should not be considered as the only option that any researcher who considers qualitative research feels obliged to follow. This study suggests that treating data as what informs of truths, facts and participants’ mental states is also a legitimate approach in applied linguistics (e.g., Dörnyei, 2007; Mackey & Gass, 2005).

Moreover, a further methodological contribution of this study may be the use of interpretative phenomenological analysis (IPA). As stated in Chapter 4, IPA emerged in the mid-1990s in medical psychology. Since then, it has been used by researchers from diverse subject fields (e.g., Wagstaff et al., 2014), but seems to be fairly new to applied linguistics. Based on the experience of the present study, IPA seems to be recommendable to those SLA researchers whose paradigmatic orientation is broadly realism (Reid et al., 2005). In addition, it could provide a useful methodological insight to the researcher who finds his/her interests in the mental processes and experiences of individual language learners rather than sociocultural or anthropological aspects of SLA. A potential disadvantage of IPA is that its heavy reliance on interview as the principal data collection method could cause validity issues. To overcome this issue, two approaches employed in this study can be suggested. First, as the founders of IPA also recommend (Smith et al., 2009), interview data can be contextualised and triangulated by means of supplementary document data relevant to the themes that emerged from the interview data. In addition, using other data collection and analysis methods outside of the conventional IPA frame, such as text analysis or survey analysis, could be also considered.

7.3.3 Pedagogical implications

This section discusses some pedagogical implications that arise from the study. Given the context of the study, here I may restrict my discussion to language learning in the context of English for academic purposes (EAP), mostly in relation to written textual engagement (reading and writing).

Primarily, the explication of the nature of the intentionality or intentional mind of the language learner can be reflected in establishing principles and rationales for pedagogical practices. For example, the importance of clearly informing students of learning objectives can be emphasised in reference to the notion of intentionality as a fundamental condition for their learning. However, given that intentionality is an inherent property of a person that cannot be incited or eliminated by any social influence, the rationale behind this instructional action should be not attempting to *cause* students' intentions for learning, but seeking to help them to *channel* their intentionality towards learning objectives. In addition, the concept of intentionality suggests that SLA seems to be the outcome of cognitive processing, the function of the intentional mind, which takes place not only parallel with interpersonal processes during which new language sources become available, but also after these processes are over. This conceptualisation of the nature of SLA centrally involving intentional cognitive processing can be considered as a possible principle in relation to the design of textbooks, lesson plans, class activities and assignments. Moreover, clarification of the intentionality as the tendency to integrate pieces of knowledge into a united knowledge structure can give rise to rationalising the application of discourse-based approaches to language teaching and learning. That is, introducing different features of a language as integral parts of extended discourse seems to accord with the natural processing of the learner's mind and its tendency to organise knowledge of language in integrative ways.

In addition, some instructional ideas can be suggested in reference to the mechanisms of the SLA of the participants occurring while engaging with reading and writing. Firstly, SLA during input was understood by means of Widdowson's (1983, 1990) concept of language learning through the negotiation of meaning. This process of SLA centrally involved the gradual amending of the knowledge of the target meaning by perceiving the meaning iteratively, and also matching the

meaning with real events or things, which facilitates the person to realise and acquire the functions and forms of new language resources encoding the meaning. In relation to this, the teacher can introduce classroom activities that help students to raise their awareness of this mechanism of SLA, which they already have experienced naturally, so that they could apply it more purposefully to their language learning. For example, students can be given a text in which a new concept is described in language that included resources new to the students. The students may then be given opportunities for recursive readings of the text. Whenever they read the text, the teacher may provide materials with which students can observe changes in their knowledge of the concept and also those in their understanding of the functions of new language resources. While engaging in the same activity, the students may also be encouraged to relate real events or things to understanding the concept observe how this instantiation of the concept helps them with developing knowledge of the concept as well as the language in which the concept is described.

Secondly, the findings that indicate the hierarchical operation between thought and language in the process of writing (Bruce, 2008ab, 2011) as the central driving force for language development can also be considered in relation to instructional settings. When referring to these findings, it would be important to help students to develop the content of their writing sufficiently before beginning to write. This step would involve encouraging them to form critical opinions about the issues that they want to discuss, for which they can relate or transfer their experience of exercising critical thinking in day-to-day living to their academic writing. Then when the students engage in the actual writing process as a next step, they may be provided with language resources for their writing by the teacher or textbooks. In undertaking this step, the student would be further developing their ideas by observing and evaluating their own thought having been written down and (thus) become more perceptible to themselves (Moreland & Rae, 2002). Afterwards, the teacher may help them to revise their texts as a way of making them more prototypical academic texts.

Finally, the findings of the study also suggests that, in English-medium academic contexts, the concepts of “language resources” or “features of language” can be extended to include both extra-linguistic procedural knowledge and linguistic

(systemic) resources of academic English. Genre knowledge (Bruce, 2008a) is identified here as the essential procedural knowledge of the language, which is hierarchically related to, and operated with linguistic systems. Thus, I put forward applying Bruce's genre knowledge theory to teaching academic writing, which introduces and models procedural knowledge with the concept of cognitive genres (CG).

7.4 Closing remarks with suggestions for future research

The present study has investigated the nature of the SLA of eight PhD students while reviewing the target literature during the conditional enrolment period in a New Zealand university. The extant paradigms in researching SLA were critically reviewed and a theoretical framework was established based on the phenomenological realist paradigm. For data collection and analysis, the qualitative approach, IPA, was used. The findings were discussed in the light of the theoretical framework.

Willig (2008) notes, "Case studies facilitate theory generation. The detailed exploration of a particular case can generate insights into social or psychological processes, which in turn can give rise to theoretical formulation and hypothesis" (p. 75). In closing the whole thesis, I wish to make some suggestions for future research by reflecting this insight of Willig's, and the key arguments, limitations and implications of the study. Firstly, further qualitative research based the phenomenological realist paradigm can be undertaken to refine and corroborate the work of the present study, or to examine different issues and topics relating to second language learning and use in diverse social, cultural settings. In addition, future research can be suggested, in which the clarification of the nature of SLA in an academic context that the present study has presented could be utilised for establishing hypotheses. For example, potential research that operationalises the two key concepts of this study – SLA by meaning-uncovering intentionality and SLA through hierarchical thought-language operations – as theoretical constructs for measuring and assessing second language knowledge in the studies of SLA and second language assessment can be recommended.

REFERENCES

- Alvesson, M. (2002). *Postmodernism and social research*. Buckingham, England: Open University Press.
- Anderson, B. (1983/1991). *Imagined communities: Reflections on the origine and spread of nationalism*. London, England: Verso.
- Anton, M., & DiCamilla, F. (1998). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. *Canadian Modern Language Review*, 54(3), 314-342.
- Appel, G., & Lantolf, J. P. (1994). Speaking as mediation: A study of L1 and L2 text recall tasks. *The Modern Language Journal*, 78(4), 437-452. doi: 10.2307/328583
- Atkinson, D. (1997). A critical approach to critical thinking in TESOL. *TESOL Quarterly*, 31(1), 71-94. doi: 10.2307/3587975
- Atkinson, D. (1998). Comments on Dwight Atkinson's "A critical approach to critical thinking in TESOL": A case for critical thinking in the English language classroom. The author responds. *TESOL Quarterly*, 32(1), 133-137. doi: 10.2307/3587909
- Atkinson, D. (2010). Extended, embodied cognition and second language acquisition. *Applied Linguistics*, 31(5), 599-622. doi: 10.1093/applin/amq009
- Atkinson, D. (2011a). Introduction: Cognitivism and second language acquisition In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 1-23). London, England: Routledge
- Atkinson, D. (2011b). A sociocognitive approach to second language acquisition: How mind, body, and world work together in learning additional language. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 143-166). London, England: Routledge.
- Atkinson, D. (Ed.). (2011c). *Alternative approaches to second language acquisition*. London, England: Routledge.
- Atkinson, D., Churchill, E., Nishino, T., & Okada, H. (2007). Alignment and interaction in a sociocognitive approach to second language acquisition. *Modern Language Journal*, 91(2), 169-188. doi: 10.1111/j.1540-4781.2007.00539.x
- Bachman, L. F. (1990). *Fundamental consideration in language testing*. Oxford, England: Oxford University Press.
- Batstone, R. (Ed.). (2010). *Sociocognitive perspectives on language use and language learning*. Oxford, England: Oxford University Press.
- Bell, J. (2005). *Doing your research project: A guide for first-time researchers in education, health and social science* (4th ed.). Buckingham, England: Open University Press.
- Benesch, S. (1999). Thinking critically, thinking dialogically. *TESOL Quarterly*, 33(3), 573-580. doi: 10.2307/3587682
- Block, D. (2003). *The social turn in second language acquisition*. Washington, D.C.: Georgetown University Press.
- Bloomfield, L. (1933). *Language*. Chicago, IL: University of Chicago Press.
- Breakwell, G. M. (2006). *Research methods in psychology*. London, England: Sage.

- Bronson, M. C., & Watson-Gegeo, K. A. (2008). The critical moment: Language socialization and the (re)visioning of first and second language learning. In P. A. Duff & N. H. Hornberger (Eds.), *Language socialization* (2nd ed., pp. 43-56). New York, NY: Springer.
- Brouwer, C. E. (2003). Word searches in NNS–NS Interaction: opportunities for language learning? *Modern Language Journal*, 87(4), 534-545. doi: 10.1111/1540-4781.00206
- Brown, D. E. (1991). *Human universals*. New York: NY: McGraw-Hill
- Brown, H. D. (2007). *Principles of Language Learning And Teaching*. White Plains, NY: Pearson Longman.
- Bruce, C. (1994). Research students' early experiences of the dissertation literature review. *Studies in Higher Education*, 19(2), 217-229. doi: 10.1080/03075079412331382057
- Bruce, I. (2008a). *Academic writing and genre: A systematic analysis*. London, England: Continuum.
- Bruce, I. (2008b). Cognitive genre structures in Methods sections of research articles: A corpus study. *Journal of English for Academic Purposes*, 7(1), 38-54. doi: <http://dx.doi.org/10.1016/j.jeap.2007.12.001>
- Bruce, I. (2011). *Theory and concepts of English for academic purposes*. Hampshire, England: Palgrave Macmillan.
- Bruce, I. (2014). Expressing criticality in the literature review in research article introductions in applied linguistics and psychology. *English for Specific Purposes*, 36(0), 85-96. doi: <http://dx.doi.org/10.1016/j.esp.2014.06.004>
- Burkhardt, A. (Ed.). (1990). *Speech acts, meaning and intentions: Critical approaches to the philosophy of John R. Searle*. Berlin, German: Gruyter.
- Burr, V. (2003). *Social constructionism*. London, England: Routledge.
- Cameron, L., & Deignan, A. (2006). The emergence of metaphor in discourse. *Applied Linguistics*, 27(4), 671-690. doi: 10.1093/applin/aml032
- Canale, M. (1983). On some dimensions of language proficiency. In J.W. Oller (Ed.), *Issues in language testing research* (pp. 333-342). Rowley, MA: Newbury House.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47. doi: 10.1093/applin/I.1.1
- Candlin, C. N., & Mercer, N. (Eds.). (2001). *English language teaching in its social context: A reader*. London, England: Routledge.
- Cederblom, J., & Paulsen, D. (2001). *Critical reasoning: Understanding and criticizing arguments and theories* (5th ed.). Belmont, CA: Wadsworth.
- Celce-Murcia, M., Dörnyei, Z., & Thurrell, S. (1995). Communicative competence: A pedagogically motivated model with content specifications. *Issues in Applied Linguistics*, 6(2), 5-35.
- Centeno-Cortés, B., & Jiménez Jiménez, A. F. (2004). Problem-solving tasks in a foreign language: the importance of the L1 in private verbal thinking. *International Journal of Applied Linguistics*, 14(1), 7-35. doi: 10.1111/j.1473-4192.2004.00052.x
- Chalmers, A. F. (1999). *What is this thing called science?* (3rd ed.). Queensland, Australia: University of Queensland Press.
- Chalmers, D. J. (2010). *The character of consciousness*. Oxford, England: Oxford University Press.

- Chenoweth, N. A., & Hayes, J. R. (2001). Fluency in writing: generating text in L1 and L2. *Written Communication, 18*(1), 80-98. doi: 10.1177/0741088301018001004
- Chomsky, N. (1959). Verbal behavior by B. F. Skinner. *Language, 35*(1), 26-58. doi: 10.2307/411334
- Clark, R., & Gieve, S. N. (2006). On the discursive construction of 'the Chinese learner'. *Language, Culture and Curriculum, 19*(1), 54-73. doi: 10.1080/07908310608668754
- Cohen, L., Manion, L., & Morrison, K. R. B. (2000). *Research methods in education* (5th ed.). London, England: Routledge.
- Cousin, G. (2010). Positioning positionality: The reflexive turn. In M. Savin-Baden & C. H. Major (Eds.), *New approaches to qualitative research: Wisdom and uncertainty* (pp. 9 - 19). Oxen, England: Routledge.
- Craib, I. (1997). Social constructionism as a social psychosis. *Sociology, 31*(1), 1-15. doi: 10.1177/0038038597031001002
- Creswell, J. W. (2012). *Educational resaerch: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.
- Crismore, A., Markkanen, R., & Steffensen, M. S. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication, 10*(1), 39-71. doi: 10.1177/0741088393010001002
- Croker, R. A. (2009). An introduction to qualitative research. In J. Heigham & R. A. Croker (Eds.), *Qualitative research in applied linguistics: A practical introduction* (pp. 3-24). Hamshire, England: Palgrave Macmillan.
- Crombie, W. H. (1985). *Process and relation in discourse and language learning*. Oxford, England: Oxford University Press.
- Crombie, W. H. (1987). *Free verse and prose style: An operational definition and description*. London, England: Routledge.
- Cromby, J., & Nightingale, D. J. (1999). What's wrong with social constructionism? In D. J. Nightingale & J. Cromby (Eds.), *Social constructionist psychology: A critical analysis of theory and practice* (pp. 1-20). Buckingham, England: Open University Press.
- Crotty, M. (1998). *The foundations of social research*. NSW, Australia: Allen & Unwin.
- Custance, A. C. (1980). *The mysterious matter of mind*. Grand Rapids, MI: Zondervan.
- Davidson, B. W. (1998). Comments on Dwight Atkinson's "A critical approach to critical thinking in TESOL": A case for critical thinking in the English language classroom. *TESOL Quarterly, 32*(1), 119-123. doi: 10.2307/3587906
- Davis, P. (1983). *God and the new physics*. New York, NY: Simon & Schuster.
- Day, E. M. (2002). *Identity and the young English language learner*. Clevedon, England: Multilingual Matters.
- de Bot, K. (2002). Cognitive processing in bilinguals: Language choice and code-switching. In R. B. Kaplan (Ed.), *The Oxford handbook of applied linguistics* (pp. 287-300). Oxford, England: Oxford University Press.
- de Bot, K., Lowie, W., & Verspoor, M. (2005). *Second language acquisition: An advanced resourse book*. London, England: Routledge.

- de Guerrero, M. C. M., & Villamil, O. S. (2000). Activating the ZPD: Mutual scaffolding in L2 peer revision. *The Modern Language Journal*, 84(1), 51-68. doi: 10.1111/0026-7902.00052
- DeKeyser, R. (2003). Implicit and explicit learning. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition*. Malden, MA: Blackwell.
- DiCamilla, F. J., & Anton, M. (1997). Repetition in the collaborative discourse of L2 learners: A Vygotskian perspective. *Canadian Modern Language Review*, 53(4), 609-633.
- Donato, R. (1994). Collective scaffolding in second language learning. In J. P. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 33-56). Norwood, NJ: Ablex.
- Doria, V., Beckmann, C. F., Arichi, T., Merchant, N., Groppo, M., Turkheimer, F. E., . . . Edwards, A. D. (2010). Emergence of resting state networks in the preterm human brain. *Proceedings of the National Academy of Sciences*, 107(46), 20015-20020. doi: 10.1073/pnas.1007921107
- Doughty, C. J., & Long, M. H. (2003). The scope of inquiry and goals of SLA. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 3-16). Malden, MA: Blackwell.
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford, England: Oxford University Press.
- Duff, P. A. (2002). The discursive co-construction of knowledge, identity, and difference: An ethnography of communication in the high school mainstream. *Applied Linguistics*, 23(3), 289-322. doi: 10.1093/applin/23.3.289
- Duff, P. A. (2008a). *Case study research in applied linguistics*. New York, NY: Lawrence Erlbaum
- Duff, P. A. (2008b). Language socialization, participation and identity: Ethnographic approaches. In M. Martin-Jones (Ed.), *Encyclopedia of language and education* (2nd ed., Vol. 3, pp. 107-119). New York, NY: Springer.
- Duff, P. A., & Talmy, S. (2011). Language socialization approaches to second language acquisition: Social, cultural and linguistic development in additional languages. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 95-116). London, England: Routledge.
- Dunn, W. E., & Lantolf, J. P. (1998). Vygotsky's zone of proximal development and Krashen's i+1: Incommensurable constructs; incommensurable theories. *Language Learning*, 48(3), 411-442. doi: 10.1111/0023-8333.00048
- Duranti, A. (1986). The audience as co-author: An introduction. *Text - Interdisciplinary Journal for the Study of Discourse*, 6(3), 239-248. doi: 10.1515/text.1.1986.6.3.239
- Eatough, V., & Smith, J. A. (2008). Interpretative phenomenological analysis. In C. Willig & W. Stainton-Rogers (Eds.), *The Sage handbook of qualitative research in psychology* (pp. 165-178). London, England: Sage.
- Eccles, J. C. (1982). *Mind and Brain: The many faceted problems*. Washington, D.C. : Paragon House.
- Eccles, J. C. (1994). *How the self controls its brain*. New York, NY: Springer-Verlag.

- Eccles, J. C., & Robinson, D. N. (1984). *The wonder of being human: Our brain and our mind*. New York, NY: The free press.
- Edwards, D. (1997). *Discourse and cognition*. London, England: Sage.
- Edwards, D., & Potter, J. (2005). Discursive psychology, mental states and descriptions. In H. Te Molder & J. Potter (Eds.), *Conversation and cognition* (pp. 241-259). Cambridge, England: Cambridge University Press.
- Ellis, N. C., & Larsen-Freeman, D. (2006). Language emergence: Implications for applied linguistics—introduction to the special issue. *Applied Linguistics*, 27(4), 558-589. doi: 10.1093/applin/aml028
- Ellis, R. (2008). *The study of second language acquisition*. Oxford, England: Oxford University Press.
- Ellis, R., Loewen, S., Elder, C., Erlam, R., Philip, J., & Reinders, H. (2009). *Implicit and explicit knowledge in second language learning, testing and teaching*. Bristol, England: Multilingual Matters.
- Ellis, R., & Barkhuizen, G. (2005). *Analysing learner language*. Oxford, England: Oxford University Press.
- Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström, R. Miettinen & R.-L. Punamäki (Eds.), *Perspectives on activity theory* (pp. 19-38). Cambridge, England: Cambridge University Press.
- Fauconnier, G. (1997). *Mappings in thought and language*. Cambridge, England: Cambridge University Press.
- Feak, C. B., & Swales, J. M. (2009). *Telling a research story: Writing a literature review*. Ann Arbor, MI: The University of Michigan Press.
- Fisette, D. (Ed.). (2003). *Husserl's Logical Investigations reconsidered*. Dordrecht, The Netherlands: Kluwer Academic.
- Firth, A. (1996). The discursive accomplishment of normality: On 'lingua franca' English and conversation analysis. *Journal of Pragmatics*, 26(2), 237-259. doi: 10.1016/0378-2166(96)00014-8
- Firth, A., & Wagner, J. (1997/2007). On discourse, communication, and (some) fundamental concepts in SLA research. *Modern Language Journal*, 81(3), 757-772. doi: DOI: 10.1111/j.1540-4781.2007.00667.x
- Flowerdew, J., & Peacock, M. (Eds.). (2001). *Research perspectives on English for academic purposes*. Cambridge, England: Cambridge University Press.
- Frawley, W. (1997). *Vygotsky and cognitive science: Language and the unification of the social and computational mind*. Cambridge, England: Harvard University Press.
- Frawley, W., & Lantolf, J. P. (1985). Second language discourse: A Vygotskian perspective. *Applied Linguistics*, 6(1), 19-44. doi: 10.1093/applin/6.1.19
- Gass, S. (1998). Apples and oranges: or, why apples are not orange and don't need to be a response to Firth and Wagner. *The Modern Language Journal*, 82(1), 83-90. doi: 10.1111/j.1540-4781.1998.tb02597.x
- Gass, S. M., & Selinker, L. (2001). *Second language acquisition: An introductory course*. Mahwah, NJ: Lawrence Erlbaum.
- Geeraerts, D., & Cuyckens, H. (Eds.). (2007). *The oxford handbook of cognitive linguistics*. Oxford, England: Oxford University Press.
- Geisler, N. L., & Brooks, R. M. (1990). *Come, let us reason: An introduction to logical thinking*. Grand Rapids, MI: Baker Books.

- Gerritsten, J. (2010, February 21). NZ: Fee policy attracts foreign PhD students, *University World News*. Retrieved from <http://www.universityworldnews.com/article.php?story=20100219130536770>
- Gieve, S. (1998). A reader reacts... *TESOL Quarterly*, 32(1), 123-129. doi: 10.2307/3587907
- Giorgi, A., & Giorgi, B. (2003). Phenomenology. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods*. London, England: Sage.
- Grosjean, F. (2008). *Studying bilinguals*. Oxford, England: Oxford University Press.
- Guba, E. G., & Lincoln, Y. S. (1998). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of Qualitative research* (3rd ed., pp. 191-216). Thousand Oaks, CA: Sage.
- Gumperz, J. J., & Levinson, S. C. (1996). *Rethinking linguistic relativity* (Vol. 17). Cambridge, England: Cambridge University Press.
- Halliday, M. A. K. (1973). *Explorations in the functions of language*. London, England: Edward Arnold.
- Halliday, M. A. K. (1989). *Spoken and written language*. Oxford, England: Oxford University Press.
- Halliday, M. A. K., & Hasan, R. (1989). *Language, context, and text: aspects of language in a social-semiotic perspective*. Oxford, England: Oxford University Press.
- Hart, C. (1998). *Doing a literature review*. London, England: Sage.
- Heidegger, M. (1962). *Being and time* (J. Macquarrie & E. Robinson, Trans.). Oxford, England: Basil Blackwell.
- Heigham, J., & Croker, R. A. (2009). *Qualitative research in applied linguistics: A practical introduction*. Hampshire, England: Palgrave Macmillan.
- Heller, M. (2006). *Linguistic minorities and modernity: A sociolinguistic ethnography*. London, England: Continuum.
- Higgins, C. (2009). *English as a local language: Post-colonial identities and multilingual practices*. Bristol, England: Multilingual Matters.
- Hill, J. H., & Mannheim, B. (1992). Language and world view. *Annual Review of Anthropology*, 21(1), 381-404. doi: 10.1146/annurev.an.21.100192.002121
- Hinkel, E. (Ed.). (2005). *Handbook of research in second language teaching and learning*. Mahwah, NJ: Lawrence Erlbaum.
- Hoey, M. (2001). *Textual interaction: An introduction to written discourse analysis*. London, England: Routledge.
- Holbrook, A. (2007). 'Level' of success in the use of the literature in a doctorate *South African Journal of Higher Education*, 21(8), 1020-1041. doi: 10.4314/sajhe.v21i8.25757
- Hood, M. (2009). Case study. In J. Heigham & R. A. Croker (Eds.), *Qualitative research in applied linguistics: A practical introduction* (pp. 66-90). Hampshire, England: Palgrave Macmillan.
- Hulstijn, J. H. (1992). Retention of inferred and given word meanings: Experiments in incidental vocabulary learning. In P. J. L. Arnaud & H. Béjoint (Eds.), *Vocabulary and applied linguistics* (pp. 113-125). London, England: Macmillan.

- Hulstijn, J. H. (2003). Incidental and intentional learning. In C. J. Doughty & M. H. Long (Eds.), *Handbook of second language acquisition* (pp. 349-381). Malden, MA: Blackwell.
- Hulstijn, J. H., Young, R. F., Ortega, L., Bigelow, M., DeKeyser, R., Ellis, N. C., . . . Talmy, S. (2014). Bridging the gap: Cognitive and social approaches to research in second language learning and teaching. *Studies in Second Language Acquisition*, 36(03), 361-421. doi: doi:10.1017/S0272263114000035
- Husserl, E. (1931). *Ideas: General introduction to pure phenomenology* (W. R. B. Gibson, Trans.). London, England: George Allen & Unwin.
- Husserl, E. (1964). *The idea of phenomenology* (W. P. Alston & G. Nakhnikian, Trans.). Den Haag, The Netherlands: Martinus Nijhoff.
- Husserl, E. (1969). *Formal and transcendental logic* (D. Cairns, Trans.). Den Haag, The Netherlands: Martinus Nijhoff.
- Husserl, E. (1970). *Logical investigation* (J. N. Findlay, Trans.). New York, NY: Humanities Press.
- Husserl, E. (1989). *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy* (R. Rojcewicz & A. Schuwer, Trans.). Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Husserl, E. (1994). Early writings in the philosophy of logic and mathematics (D. Willard, Trans.). Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Hyland, K. (2004). *Genre and second language writing*. Ann Arbor, MI: The University of Michigan Press.
- Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing*. London, England: Continuum.
- Hyland, K. (2006). *English for academic purposes: An advanced resource book*. Oxon, England: Routledge.
- Hyland, K. (2009). *Academic discourse*. London, England: Continuum.
- Hymes, D. H. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.), *Sociolinguistics* (pp. 269-293). Middlesex, England: Penguin Books.
- Inwood, M. J. (1999). Husserl. In T. Honderich (Ed.), *The philosophers: Introducing great western thinkers* (pp. 211-217). Oxford, England: Oxford University Press.
- Jacoby, S., & Ochs, E. (1995). Co-construction: An introduction. *Research on Language and Social Interaction*, 28(3), 171-183. doi: 10.1207/s15327973rlsi2803_1
- Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago, IL: The University of Chicago Press.
- Johnson, M. (2004). *A philosophy of second language acquisition*. Binghamton, NY: Yale University Press.
- Johnson, R. H. (1992). The problem of defining critical thinking. In S. P. Norris (Ed.), *The generalizability of critical thinking: Multiple perspectives on an educational ideal* (pp. 38-53). New York, NY: Teacher College Press.
- Jonassen, D., & Rohrer-Murphy, L. (1999). Activity theory as a framework for designing constructivist learning environments. *Educational Technology Research and Development*, 47(1), 61-79. doi: 10.1007/bf02299477

- Jones, A. (2005). Culture and context: critical thinking and student learning in introductory macroeconomics. *Studies in Higher Education*, 30(3), 339-354. doi: 10.1080/03075070500095788
- Jordan, G. (2004). *Theory construction in second language acquisition*. Amsterdam, The Netherlands: John Benjamins.
- Kaplan, R. B. (1972). *The anatomy of rhetoric: Prolegomena to a functional theory of rhetoric*. Philadelphia, PA: : Center for Curriculum Development.
- Kaplan, R. B. (1987). Cultural thought patterns revisited. In U. Connor & R. B. Kaplan (Eds.), *Writing across languages: Analysis of L2 text* (pp. 9-22). Reading, MA: Addison-Wesley.
- Karpov, Y. V., & Haywood, C. H. (1998). Two ways to elaborate Vygotsky's concept of mediation. *American Psychologist*, 53(1), 27-36. doi: 10.1037/0003-066X.53.1.27
- Kasper, G. (2009). Locating cognition in second language interaction and learning: Inside the skull or in public view? *IRAL: International Review of Applied Linguistics in Language Teaching*, 47(1), 11-36. doi: 10.1515/iral.2009.002
- Kasper, G., & Wagner, J. (2011). A conversational-analytic approaches to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 117-142). London, England: Routledge.
- Ke, J., & Holland, J. H. (2006). Language origin from an emergentist perspective. *Applied Linguistics*, 27(4), 691-716. doi: 10.1093/applin/aml033
- Kelly, E. F., Kelly, E. W., Grabtree, A., Gauld, A., Grosso, M., & Greyson, B. (2007). *Irreducible mind: Toward a psychology for the 21st century*. Lanham, MD: Rowman & Littlefield.
- Kramsch, C. (1993). *Context and culture in language teaching*. Oxford, England: Oxford University Press.
- Kramsch, C. (2000). Social discursive construction of self in L2 learning. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 133-154). Oxford, England: Oxford University Press.
- Kramsch, C. (2002a). How can you tell the dancer from the dance? In C. Kramsch (Ed.), *Language acquisition and language socialization: Ecological perspectives* (pp. 1-30). London, England: Continuum.
- Kramsch, C. (Ed.). (2002b). *Language acquisition and language socialization: Ecological perspectives*. London, England: Continuum.
- Kramsch, C. (2004). Language, thought, and culture. In A. Davis & C. Elder (Eds.), *The handbook of applied linguistics* (pp. 235-261). Oxford, England: Blackwell.
- Kramsch, C., & Whiteside, A. (2007). Three fundamental concepts in second language acquisition and their relevance in multilingual contexts. *The Modern Language Journal*, 91(1), 907-922. doi: 10.1111/j.1540-4781.2007.00677.x
- Kramsch, C., & Whiteside, A. (2008). Language ecology in multilingual settings: Towards a theory of symbolic competence. *Applied Linguistics*, 29(4), 645-671. doi: 10.1093/applin/amn022
- Krashen, S. (1981). *Second language acquisition and second language learning*. Oxford, England: Pergamon.
- Kroll, J. F., & Dijkstra, T. (2002). The bilingual lexicon. In R. B. Kaplan (Ed.), *The Oxford handbook of applied linguistics* (pp. 301-321). Oxford, England: Oxford University Press.

- Kukla, R. (2006). Objectivity and perspective in empirical knowledge. *Episteme: A Journal of Social Epistemology*, 3(1-2), 80-95. doi: 10.1353/epi.0.0005
- Kumaravadivelu, B. (2003). Problematizing cultural stereotypes in TESOL. *TESOL Quarterly*, 37(4), 709-719. doi: 10.2307/3588219
- Kwan, B. S. C. (2005). *A genre analysis of literature reviews in doctoral theses*. (Ph.D.), City University of Hong Kong, Hong Kong, China.
- Lado, R. (1957). *Linguistics across cultures: applied linguistics for language teachers*. Ann Arbor, MI: The University of Michigan Press.
- Lakoff, G., & Johnson, M. (1980/2003). *Metaphors we live by*. Chicago, IL: The University of Chicago Press.
- Langacker, R. W. (2008). *Cognitive grammar: A basic introduction*. Oxford, England: Oxford University Press.
- Lantolf, J. P. (1996). SLA theory building: "Letting all the flowers bloom!". *Language Learning*, 46(4), 713-749. doi: 10.1111/j.1467-1770.1996.tb01357.x
- Lantolf, J. P. (2000a). Introducing sociocultural theory. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 1-26). Oxford, England: Oxford University Press.
- Lantolf, J. P. (Ed.). (2000b). *Sociocultural theory and second language learning*. Oxford, England: Oxford University Press.
- Lantolf, J. P. (2011). The sociocultural approach to second language acquisition: Sociocultural theory, second language acquisition, and artificial L2 development. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 24-47). London, England: Routledge.
- Lantolf, J. P., & Beckett, T. G. (2009). Sociocultural theory and second language acquisition. *Language Teaching*, 42(04), 459-475. doi: 10.1017/S0261444809990048
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language acquisition*. Oxford, England: Oxford University Press.
- Larkin, M., Watts, S., & Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological analysis. *Qualitative Research in Psychology*, 3(2), 102-120. doi: 10.1191/1478088706qp062oa
- Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18(2), 141-165. doi: 10.1093/applin/18.2.141
- Larsen-Freeman, D. (2000). *Techniques and principles in language teaching* (2nd ed.). Oxford, England: Oxford University Press.
- Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied Linguistics*, 27(4), 590-619. doi: 10.1093/applin/aml029
- Larsen-Freeman, D. (2007). Reflecting on the cognitive-social debate in second language acquisition. *Modern Language Journal*, 91(5), 773-787. doi: 10.1111/j.1540-4781.2007.00668.x
- Larsen-Freeman, D. (2011). A complexity theory approach to second language development/acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 48-72). London, England: Routledge.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, England: Cambridge University Press.
- Leather, J. (2002). Modeling the acquisition of speech in a "multilingual" society: An ecological approach. In C. Kramsch (Ed.), *Language acquisition and*

- language socialization: Ecological perspectives* (pp. 47-67). London, England: Continuum.
- Lee, J. S., & Anderson, K. T. (2009). Negotiating linguistic and cultural identities: Theorizing and constructing opportunities and risks in education. *Review of Research in Education*, 33(1), 181-211. doi: 10.3102/0091732X08327090
- Lee, Y.-A. (2006). Towards respecification of communicative competence: Condition of L2 instruction or its objective? *Applied Linguistics*, 27(3), 349-376. doi: 10.1093/applin/aml011
- Lewin, R. (1992). *Complexity: Life at the edge of chaos*. New York, NY: Macmillan.
- Lightbown, P. M., & Spada, N. (2006). *How languages are learned*. Oxford, England: Oxford University Press.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park ,CA: Sage
- Littleton, K., & Whitelock, D. (2005). The negotiation and co-construction of meaning and understanding within a postgraduate online learning community. *Learning, Media and Technology*, 30(2), 147-164.
- Long, M. H. (1980). Inside the "black box": Methodological issues in classroom resaerch on language learning. *Language Learning*, 30(1), 1-42. doi: 10.1111/j.1467-1770.1980.tb00149.x
- Long, M. H., & Sato, C. J. (1984). Methodological issues in interlanguage studies: an interactionist perspective. In A. Davies, C. Criper & A. Howatt (Eds.), *Interlanguage* (pp. 253-279). Edinburgh, England: Edinburgh University Press.
- Mackey, A. (Ed.). (2007). *Conversational interaction in second language acquisition: A collection of empirical studies*. Oxford, England: Oxford University Press.
- Mackey, A., & Gass, S. M. (2005). *Second language research: Methodology and design*. Mahwah, NJ: Lawrence Erlbaum.
- Mackey, A., & Gass, S. M. (Eds.). (2012). *Resesrch methods in second language acquisition: A practical guide*. Malden, MA: Blackwell.
- Mackey, A., & Goo, J. (2007). Interaction research in SLA: A meta-analysis and research synthesis. In A. Mackey (Ed.), *Conversational interaction in second language acquisition: A collection of empirical studies* (pp. 407-453). Oxford, England: Oxford University Press.
- Mackey, A., & Polio, C. (2009). Introduction. In A. Mackey & C. Polio (Eds.), *Multiple perspectives on interaction* (pp. 1-10). New York, NY: Routledge.
- Markee, N. (2005). Conversation anlysis for second language acquisition. In E. Hinkel (Ed.), *Handbok of research in second language teaching and learning* (pp. 355-374). Mahwah, NJ: Lawrence Erlbaum.
- Mead, G. H. (1934). *Mind, self, and society : From the standpoint of a social behaviorist*. Chicago, IL: The University of Chicago Press.
- Mellow, J. D. (2006). The emergence of second language syntax: A case study of the acquisition of relative clauses. *Applied Linguistics*, 27(4), 645-670. doi: 10.1093/applin/aml031
- Menard-Warwick, J. (2009). Co-constructing representations of culture in ESL and EFL classrooms: Discursive faultlines in Chile and California. *The Modern Language Journal*, 93(1), 30-45. doi: 10.2307/40264127

- Merriam, S. B. (1998). *Qualitative research and case study application in education*. San Francisco, CA: Jossey-Bass.
- Mitchell, R., & Myles, F. (2004). *Second language learning theories* (2nd ed.). London, England: Hodder Arnold.
- Moore, T. J. (2011). *Critical thinking and language: The challenge of generic skills and disciplinary discourses*. London, England: Continuum.
- Moreland, J. P. (1989). Was Husserl a nominalist? *Philosophy and Phenomenological Research*, 49(4), 661-674. doi: 10.2307/2107853
- Moreland, J. P. (2012). Four degrees of postmodernism. In P. Copan & W. L. Craig (Eds.), *Come let us reason: New essays in Christian apologetics* (pp. 17-34). Nashville, TN: B&H Publishing Group.
- Moreland, J. P., & Rae, S. B. (2000). *Body and soul: Human nature and the crisis in ethics*. Downers Grove, IL: InterVarsity Press.
- Mori, J., & Hasegawa, A. (2009). Doing being a foreign language learner in a classroom: Embodiment of cognitive states as social events. *International Review of Applied Linguistics in Language Teaching*, 47(1), 65-94. doi: 10.1515/iral.2009.004
- Morita, N. (2004). Negotiating participation and identity in second language academic communities. *TESOL Quarterly*, 38(4), 573-603. doi: 10.2307/3588281
- Morita, N. (2009). Language, culture, gender, and academic socialization. *Language and Education*, 23(5), 443-460. doi: 10.1080/09500780902752081
- Nagel, T. (2012). *Mind and cosmos: Why the materialist neo-Darwinian conception of nature is almost certainly false*. Oxford, England: Oxford University Press.
- Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50(3), 417-528. doi: 10.1111/0023-8333.00136
- Norton, B. (2000). *Identity and language learning: Gender, ethnicity and educational change*. Harlow, England: Longman.
- Norton, B. (2001). Non-participation, imagined communities and the language classroom. In M. Breen (Ed.), *Learner contributions to language learning: New directions in research* (pp. 159-171). Harlow, England: Longman.
- Norton, B., & Mckinny, C. (2011). An identity approach to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 73-94). London, England: Routledge.
- Norton, B., & Toohey, K. (2001). Changing perspectives on good language learners. *TESOL Quarterly*, 35(2), 307-322. doi: 10.2307/3587650
- Norton Peirce, B. (1995a). Social identity, investment, and language learning. *TESOL Quarterly*, 29(1), 9-31. doi: 10.2307/3587803
- Norton Peirce, B. (1995b). The theory of methodology in qualitative research. *TESOL Quarterly*, 29(3), 569-576. doi: 10.2307/3588075
- Nunan, D. (1992). *Research methods in language learning*. Cambridge, England: Cambridge University Press.
- Ochs, E., & Schieffelin, B. B. (1984). Language acquisition and socialization: Three developmental stories and their implications. In R. A. Shweder & R. A. LeVine (Eds.), *Culture theory: Essays on mind, self and emotion*. Cambridge, England: Cambridge University Press.

- Ochs, E., & Schieffelin, B.B. (2008). Language socialization: An historical overview. In P. Duff & N. H. Hornberger (Eds.), *Language socialization* (pp. 3-15). New York, NY: Springer.
- Ohta, A. S. (2001). *Second language acquisition processes in the classroom setting: Learning Japanese*. Mahwah, NJ: Lawrence Erlbaum.
- Ortega, L. (2009). *Understanding second language acquisition*. London, England: Hodder Education.
- Ortega, L. (2011). SLA after the social turn: Where cognitivism and its alternative stand. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 167-180). London, England: Routledge.
- Ortega, L. (2012). Epistemological diversity and moral ends of research in instructed SLA. *Language Teaching Research*, 16(2), 206-226. doi: 10.1177/0267658311431373
- Paltridge, B., & Starfield, S. (2007). *Thesis and dissertation writing in a second language: A handbook for supervisors*. London, England: Routledge.
- Park, J.-E. (2007). Co-construction of nonnative speaker identity in cross-cultural interaction. *Applied Linguistics*, 28(3), 339-360. doi: 10.1093/applin/amm001
- Parker, I. (1998). Against postmodernism: Psychology in cultural context. *Theory & Psychology*, 8(5), 601-627. doi: 10.1177/0959354398085002
- Paton, M. (2005). Is critical analysis foreign to Chinese students? . In E. Manalo & G. Wong-Toi (Eds.), *Communication skills in university education: The international dimension* (pp. 1-11). Auckland, New Zealand: Pearson Education.
- Pavlenko, A., & Blackledge, A. (2004). *Negotiation of identities in multilingual contexts*. Clevedon, England: Multilingual Matters.
- Pennycook, A. (2001). *Critical applied linguistics: A critical introduction*. Mahwah, NJ: L. Erlbaum.
- Philp, J., & Mackey, A. (2010). Interactional research: What can socially informed approaches offer to cognitivists (and vice versa?). In R. Batstone (Ed.), *Sociocognitive perspective on language use and language learning* (pp. 210-228). Oxford, England: Oxford University Press.
- Pinker, S. (1994). *The language instinct: The new science of language and mind*. New York, NY: Penguin Books.
- Plantinga, A. (2011). Content and natural selection. *Philosophy and Phenomenological Research*, 83(2), 435-458. doi: 10.1111/j.1933-1592.2010.00444.x
- Poehner, M. E. (2007). Beyond the test: L2 dynamic assessment and the transcendence of mediated learning. *Modern Language Journal*, 91(3), 323-340. doi: 10.1111/j.1540-4781.2007.00583.x
- Potter, J. (2003). Discursive psychology: Between method and paradigm. *Discourse & Society*, 14(6), 783-794. doi: 10.1177/09579265030146005
- Potter, M. C., So, K.-F., Eckardt, B. V., & Feldman, L. B. (1984). Lexicon and conceptual representation in beginning and proficient bilinguals. *Journal of verbal learning and verbal behavior*, 23(1), 23-38. doi: 10.1016/S0022-5371
- Price, S. (1999). Critical discourse analysis: Discourse acquisition and discourse practices. *TESOL Quarterly*, 33(3), 581-595. doi: 10.2307/3587683
- Prior, P. A. (1998). *Writing/disciplinarity: A sociohistoric account of literate activity in the academy*. Routledge.

- Rampton, B. (1995). Politics and change in research in applied linguistics. *Applied Linguistics*, 16(2), 233-256. doi: 10.1093/applin/16.2.233
- Rampton, B. (1997). Second language research in late modernity: A response to Firth and Wagner. *The Modern Language Journal*, 81(3), 329-333. doi: 10.1111/j.1540-4781.1997.tb05491.x
- Read, J. (2000). *Assessing vocabulary*. Cambridge, England: Cambridge University Press.
- Read, J. (2007). Towards a new collaboration: Research in SLA and language testing. *New Zealand Studies in Applied Linguistics*, 13(1), 22-35.
- Reid, K., Flowers, P., & Larkin, M. (2005, Jan 2005). Exploring lived experience. *Psychologist*, 18, 20-23.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching* (2nd ed.). Cambridge, England: Cambridge University Press.
- Richards, J. C., & Schmidt, R. (2010). *Longman dictionary of language teaching and applied linguistics* (4th ed.). Harlow, England: Longman.
- Richards, K. (2003). *Qualitative inquiry in TESOL*. Hampshire, England: Palgrave Macmillan.
- Richards, K. (2009a). Interviews. In J. Heigham & R. A. Croker (Eds.), *Qualitative research in applied linguistics: A practical introduction* (pp. 182-199). Hampshire, England: Palgrave Macmillan.
- Richards, K. (2009b). Trends in qualitative research in language teaching since 2000. *Language Teaching*, 42(2), 147-180. doi: 10.1017/S0261444808005612
- Ridley, D. (2008). *The literature review: A step by step guide for students*. London, England: Sage.
- Rosen, H. (1998). *Speaking from memory: The study of autobiographical discourse*. Stoke-on-Trent, England: Trentham.
- Rudestam, K. E., & Newton, R. R. (2001). *Surviving your dissertation: A comprehensive guide to content and process* (2nd ed.). Thousand Oaks, CA: Sage.
- Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. *Language*, 50(4), 696-735. doi: 10.2307/412243
- Schegloff, E. A., Jefferson, G., & Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language*, 53(2), 361-382. doi: 10.2307/413107
- Schegloff, E. A., Koshik, I., Jacoby, S., & Olsher, D. (2002). Conversation analysis and applied linguistics. *Annual Review of Applied Linguistics*, 22, 3-31. doi: 10.1017/S0267190502000016
- Schieffelin, B. B., & Ochs, E. (1986). Language socialization. *Annual Review of Anthropology*, 15(1), 163-191. doi: 10.1146/annurev.an.15.100186.001115
- Schleiermacher, F. (1998). *Hermeneutics and criticism and other writings* (A. Bowie, Trans.). Cambridge, England: CUP.
- Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11(2), 129-158. doi: 10.1093/applin/11.2.129
- Searle, J. R. (1969). *Speech acts*. Cambridge, England: Cambridge University Press.
- Searle, J. R. (1992). *The Rediscovery of mind*. Cambridge, England: MIT Press.

- Searle, J. R. (2002). *Consciousness and language*. Cambridge, England: Cambridge University Press.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics*, 10(3), 209-231.
- Simons, P. (1995). Meaning and language. In B. Smith & D. W. Smith (Eds.), *The Cambridge companion to Husserl* (pp. 106-137). Cambridge, England: Cambridge University Press.
- Skehan, P. (1998). *A cognitive approach to language learning*. Oxford, England: Oxford University Press.
- Skinner, B. F. (1957). *Verbal behavior*. New York, NY: Appleton-Century-Crofts.
- Smith, B. (1990). Towards a history of speech act theory. In A. Burkhardt (Ed.), *Speech acts, meaning and intention: Critical approaches to the Philosophy of John R. Searle* (pp. 29-61). Berlin, Germany: Walter de Gruyter.
- Smith, B., & Woodruff Smith, D. (1995). Introduction. In B. Smith & D. Woodruff Smith (Eds.), *Cambridge companion to Husserl* (pp. 1-44). Cambridge, England: Cambridge University Press.
- Smith, H. J. (2007). The social and private worlds of speech: Speech for inter- and intramental activity. *Modern Language Journal*, 91(3), 341-356. doi: 10.1111/j.1540-4781.2007.00584.x
- Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology & Health*, 11(2), 261-271. doi: 10.1080/08870449608400256
- Smith, J. A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology*, 1(1), 39-54. doi: 10.1191/1478088704qp004oa
- Smith, J. A. (2007). Hermeneutics, human sciences and health: Linking theory and practice. *International Journal of Qualitative Studies on Health and Well-Being*, 2(1), 3-11.
- Smith, J. A. (2010). Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review*, 5(1), 9-27. doi: 10.1080/17437199.2010.510659
- Smith, J. A. (2011a). Evaluating the contribution of interpretative phenomenological analysis: a reply to the commentaries and further development of criteria. *Health Psychology Review*, 5(1), 55-61. doi: 10.1080/17437199.2010.541743
- Smith, J. A. (2011b). 'We could be diving for pearls': The value of the gem in experiential qualitative psychology. *Qualitative Method in Psychology Bulletin*, 12, 6-15.
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. London, England: Sage.
- Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to methods* (pp. 53-80). London, England: Sage.
- Stapp, H. P. (2007). *Mindful universe: Quantum mechanics and the participating observer*. New York, NY: Springer.
- Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principle and practice in applied linguistics: Studies in honour of H. G. Widdowson* (pp. 125-144). Oxford, England: Oxford University Press.

- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-114). Oxford, England: Oxford University Press.
- Swain, M. (2006a). Languaging, agency and collaboration in advanced second language proficiency. In H. Byrnes (Ed.), *Advanced language learning: The contribution of Halliday and Vygotsky* (pp. 95-198). London, England: Continuum.
- Swain, M. (2006b). Verbal protocols: What does it mean for research to use speaking as a data collection tool? In M. Chaloub-Deville, C. A. Chapelle & P. Duff (Eds.), *Inference and generalizability in applied linguistics: Multiple research perspectives* (pp. 97-113). Amsterdam, The Netherlands: John Benjamins.
- Swain, M., & Deters, P. (2007). "New" mainstream SLA theory: Expanded and enriched. *The Modern Language Journal*, 91(5), 820-836. doi: 10.1111/j.1540-4781.2007.00671.x
- Swain, M., Lapkin, S., Knouzi, I., Suzuki, W., & Brooks, L. (2009). Languaging: University students learn the grammatical concept of voice in French. *Modern Language Journal*, 93(1), 5-29. doi: 10.1111/j.1540-4781.2009.00825.x
- Swales, J. M. (1990). *Genre Analysis: English in academic and research settings*. Cambridge, England: Cambridge University Press.
- Swales, J. M. (2004). *Research genres: Exploration and application*. Cambridge, England: Cambridge University Press.
- Talmy, S. (2010). Qualitative interviews in applied linguistics: From research instrument to social practice. *Annual Review of Applied Linguistics*, 30, 128-148. doi: 10.1017/S0267190510000085
- Thorne, S. L., Black, R. W., & Sykes, J. M. (2009). Second language use, socialization, and learning in internet interest communities and online gaming. *The Modern Language Journal*, 93, 802-821. doi: 10.1111/j.1540-4781.2009.00974.x
- Tian, J., & Low, G. D. (2011). Critical thinking and Chinese university students: a review of the evidence. *Language, Culture and Curriculum*, 24(1), 61-76. doi: 10.1080/07908318.2010.546400
- Trefil, J. (1996). *101 things you don't know about science and no one else does either*. Boston, MA: Houghton Mifflin.
- Twaddell, W. F. (1935). On defining the phoneme. *Language*, 11(1), 5-62. doi: 10.2307/522070
- Ushakova, T. N. (1994). Inner speech and second language acquisition: An experimental-theoretical approach. In J. P. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 135-156). Norwood, NJ: Ablex.
- van Dijk, T. A. (2003). The discourse-knowledge interface. In G. Weiss & R. Wodak (Eds.), *Critical discourse analysis: Theory and interdisciplinarity* (pp. 85-109). Houndsmills, England: Palgrave-MacMillan.
- van Lier, L. (2000). From input to affordance: Socio-interactive learning from an ecological perspective. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245-260). Oxford, England: Oxford University Press.

- van Patten, B. (2004). Input and output in establishing form-meaning connections. In B. v. Patten, J. Williams, S. Rott & M. Overstreet (Eds.), *Form-meaning connections in second language acquisition* (pp. 29-47). Mahwah, NJ: Lawrence Erlbaum.
- Verity, D. P. (2000). The strategic development of professional satisfaction. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 179-198). Oxford, England: Oxford University Press.
- Virtanen, T. (1992). Issues of text typology: Narrative — a ‘basic’ type of text? *Text - Interdisciplinary Journal for the Study of Discourse*, 12(2), 293-310. doi: 10.1515/text.1.1992.12.2.293
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and language* (A. Kozulin, Trans.). Cambridge, MA: The MIT Press.
- Wagner, J. (1996). Foreign language acquisition through interaction: A critical review of research on conversational adjustments. *Journal of Pragmatics*, 26(2), 215-235. doi: 10.1016/0378-2166(96)00013-6
- Wagstaff, C., Jeong, H., Nolan, M., Wilson, T., Tweedie, J., Phillips, E., . . . Holland, F. (2014). The accordion and the deep bowl of spaghetti: Eight researchers' experiences of using IPA as a methodology. *The qualitative report*, 19(47), 1-15.
- Warnock, M. (1987). *Memory*. London, England: Faber.
- Watson-Gegeo, K. A. (2004). Mind, language, and epistemology: Toward a language socialization paradigm for SLA. *The Modern Language Journal*, 88(3), 331-350. doi: 10.1111/j.0026-7902.2004.00233.x
- Weedon, C. (1997). *Feminist practice and poststructuralist theory* (2nd ed.). London, England: Blackwell.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, England: Cambridge University Press.
- Westberry, N. C. (2009). *An activity theory analysis of social epistemologies within tertiary-level eLearning environments*. (PhD), University of Waikato, Hamilton, New Zealand. Retrieved from <http://hdl.handle.net/10289/4184>
- Widdowson, H. G. (1983). *Learning purpose and language use*. Oxford, England: Oxford University Press.
- Widdowson, H. G. (1989). Knowledge of language and ability for use. *Applied Linguistics*, 10(2), 128-137. doi: 10.1093/applin/10.2.128
- Widdowson, H. G. (1990). *Aspects of language teaching*. Oxford, England: Oxford University Press.
- Widdowson, H. G. (2007). *Discourse analysis*. Oxford, England: Oxford University Press.
- Willard, D. (1973). The absurdity of thinking in language. *Southwestern Journal of Philosophy*, 4(1), 125-132. doi: 10.5840/swjphil19734116
- Willard, D. (1982). Wholes, parts and the objectivity of knowlege. In B. Smith & W. Kunne (Eds.), *Parts and moments: Studies in logic and formal ontology* (pp. 379-400). München, Germany: Philosophia Verlag GmbH.
- Willard, D. (1984). *Logic and the objectivity of knowledge: A study in Husserl's early philosophy*. Athens, Ohio: Ohio University Press.

- Willard, D. (1991). Toward a phenomenology for the correspondence theory of truth. Retrieved from <http://www.dwillard.org/articles/artview.asp?artID=61>
- Willard, D. (1995). Knowledge. In B. Smith & D. W. Smith (Eds.), *The Cambridge companion to Husserl* (pp. 138-167). Cambridge, England: Cambridge University Press.
- Willard, D. (2000, April). *Naturalism's incapacity to capture the good will*. Paper presented at the the Waco Conference on the Nature of Nature, the United States. Retrieved from <http://www.dwillard.org/articles/artview.asp?artID=46>
- Willard, D. (2003a). Theory of wholes and parts and Husserl's explication of the possibility of knowledge in the *Logical investigations*. In D. Fisette (Ed.), *Husserl's Logical Investigations reconsidered* (pp. 163-182). Dordrecht, The Netherlands: Kluwer Academic
- Willard, D. (2003b). A realist analysis of the relationship between logic and experience. *Topoi*, 22(1), 69-78. doi: 10.1023/A:1022108031360
- Willard, D. (2007). Intentionality and the substance of the self. Retrieved from <http://www.dwillard.org/articles/artview.asp?artID=127>
- Willard, D. (2011, April). *Realism sustained? Interpreting Husserl's progression into idealism*. Paper presented at the The Early Phenomenological Conference, Franciscan University of Steubenville, OH. Retrieved from <http://www.dwillard.org/articles/artview.asp?artID=151>
- Williams, G. (2008). Language socialization: A systemic functional perspective. In P. A. Duff & N. H. Hornberger (Eds.), *Language socialization* (2nd ed., pp. 57-70). New York, NY: Springer.
- Willig, C. (2003). Discourse analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 159-183). London, England: Sage.
- Willig, C. (2008). *Introducing qualitative research in psychology* (2nd ed.). Berkshire, England: Open University Press.
- Woodruff Smith, D. (2002). Mathematical form in the world. *Philosophia Mathematica*, 10(2), 102-129. doi: 10.1093/philmat/10.2.102
- Woodruff Smith, D. (2003). The unity of the *Logical Investigations*: Then and now. In D. Fisette (Ed.), *Husserl's Logical Investigations reconsidered* (pp. 21-34). Dordrecht, The Netherlands: Kluwer Academic.
- Woodruff Smith, D., & McIntyre, R. (1982). *Husserl and Intentionality: A study of mind, meaning, and language*. Dordrecht, Holland: D. Reidel Publishing Company.
- Wray, A. (2002). *Formulaic language and the lexicon*. Cambridge, England: Cambridge University Press.
- Yockey, H. P. (1977). A calculation of the probability of spontaneous biogenesis by information theory. *Journal of Theoretical Biology*, 67(3), 377-398. doi: 10.1016/0022-5193(77)90044-3
- Yockey, H. P. (2002). Information theory, evolution and the origin of life. *Information Sciences*, 141(3-4), 219-225. doi: 10.1016/s0020-0255(02)00173-

APPENDICES

List of Appendices

Appendix A: Research Ethics Approval

Appendix B: PhD Student Participant Informed Consent

Appendix C: Supervisor Participant Informed Consent

Appendix D: Peer Review Participant Informed Consent

Appendix E: The First Interview Schedule

Appendix F: The Last Interview Schedule

Appendix G: An Example of Three-column Tables of Data Analysis

Appendix H: An Example of the Tables of Grouping of Subordinate Themes into Superordinate Themes

Appendix I: An Example of the Tables of Communal Pattern Identification across the Four Core Participants

Appendix J: Examples of the Analysis of the Final Literature Review Text

Appendix B: PhD Student Participant Informed Consent

Dear Participant,

I would very much appreciate your help for my PhD study.

My doctoral research project attempts to investigate how international PhD students acquire English, their second language while undertaking a literature review over the first six-month conditional enrolment period.

The data I plan to collect should be as natural as possible. Therefore, except for interviews, data will be collected from what you do for your own literature review. I estimate that the amount of actual time you will spend helping me in my study will average about one hour a month during your first six months of conditional enrolment.

I would appreciate it if you can participate in the data collection of my research, which will take place during your conditional enrolment period. The timings of data collection will be negotiated between you and me depending on the schedule, plan and progress you will make in relation to working on the literature review. The ways that you will be asked to participate are as follows:

- Interviews and informal conversations with me. Prior to the initial interview, I will ask you to send me your CV;
- Providing me with copies of the summaries or reviews of your supervision meetings, workshops, or seminars that are related to the literature review. (In case you make them, I will not ask you to create one of those to provide me)
- providing me with copies of the drafts of your written work on the emerging literature review and your supervisors' feedback on it, and the revised versions that you draft in the light of such feedback; and,
- providing me with your study materials in relation to the literature review that I may request from time to time.

Participants' identity and any form of information will be kept confidential. All identifying elements will be removed from their data which instead will be coded and/or assigned pseudonyms. Nobody other than me and my own supervisors will know the source of the data. All data collected will be reported in such a manner that no individual can be identified. Participants will have the opportunity to review their interview and observation transcripts and comment on the accuracy of summaries.

Your participation in data collection is completely voluntary and you may withdraw at any time up to the beginning of the data analysis without providing any reason. Should you withdraw from the study, all the data associated with you will be destroyed. All data obtained in this study will be documented in electronic form and these coded files will be kept on a backup CD until the end of 2017, at which point the CD will be destroyed.

This study has been approved by the Human Research Ethics Committee of the Faculty of Arts and Social Sciences, The University of Waikato. Any issues about the nature of this research may be sent to my chief supervisor, Dr Ian Bruce (ibruce@waikato.ac.nz), in the first instance, and/or to the Chairperson of the FASS Human Research Ethics Committee (fass-ethics@waikato.ac.nz).

Participation in this research is optional: you can participate partially or fully as you may wish according to the points on the attached consent form. If you would like to participate in the study, please let me know via e-mail, and you will have opportunity to ask me questions in person to clarify anything that is uncertain to you. I will then ask you to sign two copies of the attached participant informed consent forms and keep a copy for your records, while the other is left with me. If you have further queries you may also email me at hj77@students.waikato.ac.nz.

Thank you very much for your time and help.

Hyeseung Jeong

PhD Candidate, Applied Linguistic

Researcher: Hyeseung Jeong

I, _____, have been given an opportunity to read an explanation of this doctoral research, to ask questions and have these answered. I agree to participate in Hyeseung Jeong's research project completely voluntarily in the ways that I consent below.

Participant Consent

Yes	No	
		I agree that I will give to the researcher the record of relevant correspondence /meetings/ seminars/ workshops / informal chat, etc. about the literature review when it is possible.
		I agree that I will give a copy of my CV and initial proposal to the researcher.
		I agree that the researcher will personally interview me.
		I agree that the interviews will be audio recorded.
		I agree to provide the researcher with copies of the summaries or reviews of your supervision meetings, workshops, or seminars that are related to the literature review. (In case I make them, the researcher will not ask you to create one of those to provide me)
		I agree to provide the researcher with the drafts of the literature review and feedback on it from my supervisors or any other persons, when it is possible.
		I understand that I may request to review all the data collected from me and comment on the accuracy of summaries and interpretations made by the researcher.
		I understand that only the researcher and her supervisors will have access to any data collected obtained from me.
		I understand that my identity will not be revealed to any other person.
		I understand that appropriately anonymised findings from this study will contribute to a PhD thesis which will also be made publicly available on the internet.
		I understand that I may withdraw from the study any time up to the beginning of the data analysis without having to provide any reason. In the event of such withdrawal, I may request that any data collected from me be destroyed and removed from the study findings.

Signed: _____

Date: _____

Appendix C: Supervisor Participant Informed Consent

Dear Supervisor Participant,

My doctoral research project attempts to investigate how international PhD students acquire English, their second language while undertaking a literature review over the first six-month conditional enrolment period.

My research project does not attempt in any way to examine the power relation between students and professional academics, or evaluate the ways of supervision. Rather it will explore how interaction between PhD students and their supervisors help the students to their knowledge and competence for composing the literature review. This will be part of my methodological framework, which will let me explore the developmental process of the students doing the literature review through interacting with the people of the field which they belong and through their internal cognitive striving. Findings from my research will be used to suggest the importance for international trainee researchers in acquiring the competence to compose a well-crafted literature review and the effective ways to support and guide them to perform the task successfully.

I would appreciate it if you can participate in the data collection of my research, which will take place during your PhD student _____'s conditional enrolment period. The timings of data collection will be negotiated between you, the other supervisor(s), _____, the student participant and me depending on the schedule, plan and progress you will make in relation to working on the literature review. The ways that you will be asked to participate are as follows:

- giving me permission to observe and/or audio-record of meetings with your PhD students focusing specifically on the literature review;
- permitting me to collect from _____'s feedback in relation to the literature review; and,
- having an interview with me about your supervision directions and focuses in relation to the literature review. This will take up 30-60 minutes and may be audio recorded, with your agreement

Participants' identity and any form of information will be kept confidential. All identifying elements will be removed from their data and will be coded or assigned pseudonyms. Nobody other than me and my own supervisors will have the knowledge of the data. All data collected will be reported in such a manner that no individual can be identified. Participants will have the opportunity to review their interview and observation transcripts and comment on accuracy of

summaries. Participants will also be offered the opportunity to discuss the findings of the study towards completion of the thesis.

Your participation in data collection is completely voluntary and you may withdraw at any time up to the beginning of the data analysis without providing any reason. Should you withdraw from the study, all the data associated with you will be destroyed. All data obtained in this study will be documented in electronic form and these coded files will be kept on a backup CD until the end of 2017, at which point the CD will be destroyed.

This study has been approved by the Human Research Ethics Committee of the Faculty of Arts and Social Sciences, The University of Waikato. Any issues about the nature of this research may be sent to my Chief supervisor, Dr Ian Bruce (ibruce@waikato.ac.nz), in the first instance, and/or to the Chairperson of the FASS Human Research Ethics Committee (fass-ethics@waikato.ac.nz).

Participation in this research is optional: you can participate partially or fully as you may wish according to the points on the attached consent form. If you would like to participate in the study, please let me know via e-mail, and you will have opportunity to reread and ask me questions in person to clarify anything that is uncertain to you. I will then ask you to sign two copies of the attached participant informed consent forms and keep a copy for your records, while the other is left with me. If you have further queries you may also email me at hj77@students.waikato.ac.nz.

Thank you very much for your time and help.

Hyeseung Jeong

PhD Candidate, Applied Linguistics

Researcher: Hyeseung Jeong

I, _____, have been given an opportunity to read an explanation of this doctoral research, ask questions and have these answered. I agree to participate in Hyeseung Jeong's research project completely voluntarily in the ways that I consent below.

Participant Consent

Yes	No	
		I agree that I will allow my PhD student (name) to show the record of relevant correspondence/meeting specifically about the literature review between my PhD student and me.
		I agree that the researcher will observe the supervision meetings which focus on the literature review (one or two times).
		I agree for the researcher to audio record the supervision meetings which focus on the literature review (one or two times).
		I agree that I will permit the researcher to collect my feedback on _____'s literature review drafts.
		I agree for the researcher to personally interview me.
		I agree that the interview will be audio recorded.
		I understand that I request to review all the data collected from me and comment on accuracy.
		I understand that only the researcher and her supervisors will have access to any data collected obtained from me.
		I understand that my identity will not be revealed to any other person.
		I understand that anonymous findings from this study will contribute to a PhD thesis which will also be made publicly available on the internet.
		I understand that I may withdraw from the study any time up to the beginning of the data analysis without having to provide any reason. In the event of such withdrawal, I may request that any data collected from me be destroyed and removed from the study findings.

Signed: _____

Date: _____

Appendix D: Peer Review Participant Informed Consent

Researcher: Hyeseung Jeong

I, _____, have been given an opportunity to read an explanation of this doctoral research, to ask questions and have answers. I agree that the researcher will use my written feedback on a literature review draft of one of her participants. I understand that I may request to review all the data collected from me and comment on the accuracy of summaries and interpretations made by the researcher. I understand that my identity will not be revealed to any other person, and it will be appropriately anonymised. I understand findings from this study will contribute to a PhD thesis which will also be made publicly available on the internet. I may withdraw from the study any time up to the beginning of the data analysis without having to provide any reason. In the event of such withdrawal, I may request that any data collected from me be destroyed and removed from the study findings.

Signed: _____

Date: _____

Appendix E: The First Interview Schedule

- Self-introduction
- What is your motivation for your study?
- What is the purpose of the literature review?
- What is your previous experience in relation to the literature review?
- What are the sources (people, books, seminars...) from which you are learning how to do the literature review?
- How do you find doing the literature review (and you PhD) in English?
- What do you think are required to undertake the literature review, successfully?
- What do you think are required to undertake the literature review in a second language?
- Please tell you plans (if any) to develop your competence to do the literature review.

Appendix F: The Last Interview Schedule

- What is the purpose of the literature review for a PhD thesis? (I asked it before, but please let me know if you had changed or expanded your thought on it).
- Please tell me your experience of doing the literature in your second language during your conditional enrolment period (any episodes, challenges, difficulties, 'break-through' moments that you have come across)

Appendix H: An Example of the Tables of Grouping of Subordinate Themes into Superordinate Themes

The nature of academic English competence

1. Being a second language speaker of English

Subordinate themes	Extracts	My comments	Contextualising with sub-data
<p>1st interview (August 15)</p> <p>Thinking about difficulty first when 'thinking about' doing the LR in English which is her second language</p> <p>feeling always reading is challenging but telling different factors for it over time</p>	<p>I : yeah then how do you find doing the literature review</p> <p>S: um</p> <p>I : in English which is not your first language</p> <p>S: I think biggest difficulty is reading for me.</p> <p>you know you can talk in English fluently but for me I never think, I think I can never read as fast as native speakers and also you know that academic reading it is not that easy so it took me much longer time to read much longer time not just to read it's when while you're reading you need to get to the point out of your reading so it's kind of digestion um so maybe in Chinese in your language you can pick up those ideas while you're reading but in English you need to read it and yes you also do that while you're reading but for some you have to re-read it to get those important ideas so reading it reading takes much longer time and somehow even if you spend a lot of time still you didn't quite catch the point maybe there's misunderstanding or something so reading is a big thing</p>	<p>When I asked 'how do you find doing the literature review in English which is not your first language, she starts from 'difficulty'. It has been found from my other participants' comments as well. Is it a matter-of-factual mind-set which arise from the reality from her own experience or by being influenced by dominant discourse as L2 speakers inferior to NSs? Or both???</p> <p>she is telling two things: academic reading needs more time to "digest" (think and understand) and somewhere else she mentioned that she is a slow reader in general, which is already challenging; L2 speakers need more time to process than NSs also there is a possibility for misunderstanding. That is the fact that she needs to engaging in academic reading plus in English which is not her first language seems to, she thinks, 'double' the difficulty of academic writing. Interesting thing is in her later interview, although she still thinks reading is most challenging, she finds the difficulty more from her slow reading than her being as a L2 speaker</p>	<p>Manual notes</p>

Appendix I: An Example of the Tables of Communal Pattern Identification across the Four Core Participants

Analysis 2: Nature of Academic English competence

Having structured genre knowledge: I have grouped subordinate themes and in a group, I put both confirming and contradicting subordinate themes for the group.

Having structured genre knowledge			
a. Hierarchical organisation of genre knowledge b. In relation social genre knowledge c. In relation to cognitive genre knowledge d. In relation to linguistic knowledge			
P1	P2	P3	P4
<p>March 12</p> <p>b. lack of social genre knowledge getting new info for a short time—broad social genre knowledge b. shaping new epistemology b. not knowing the purpose of the LR b. not having social genre knowledge of the LR b. struggling to shape social genre knowledge c. not worrying about formative knowledge</p> <p>April 20</p> <p>b. shaping own epistemology c. her thought about ideal cognitive genre knowledge d. not caring about technical things a. SGK and CGK regulate LSK the hierarchical organisation and operationalization of genre knowledge d. considering 'language refinement as the last thing'</p> <p>April 28</p> <p>a. content over language b. getting social and cognitive genre knowledge from others' theses</p> <p>May 22</p> <p>b. shaping the research questions is one of the purposes of doing the LR Hierarchical organisation of her genre knowledge Genre knowledge organisation</p>	<p>1st interview</p> <p>b. starting from a broad idea b. knowing how to do the LR from experience; getting social genre knowledge from recent process of knowledge fulfilment; getting social / d. linguistic knowledge from articles b. totally social genre knowledge: genre chain starting from the broad idea: knowing how to do the LR Knowing how to get social genre knowledge in her area</p> <p>April 19</p> <p>b. knowing how to do the LR: starting from the broad idea c. expecting her sups to give cognitive genre (and possible social genre) feedback a. hierarchical knowledge organisation a. hierarchical organisation of genre knowledge</p> <p>May 13</p> <p>c. ideal writing style she thinks</p>	<p>1st interview</p> <p>b. motivation of her topic: starting from realising problems to solve: determination</p> <p>July 7</p> <p>a. narrowing down from the broad lit review to her model; working with her sup</p> <p><i>I think I should transcribe her mention about UN thing because it is actually her social genre knowledge that shapes her research direction</i></p> <p>Sep 7</p> <p>a. hierarchically organised genre knowledge a. Hierarchical organisation of genre knowledge: language is constrained by higher knowledge; not caring about language at proposal stage d. Her genre knowledge: cognitive genre knowledge ok but linguistic system need to be worked b. expanding social genre knowledge, especially about audience and context</p>	<p>1st interview (August 15)</p> <p>b. having learned from her MA supervisor to organise the LR as the way to suggest solutions for her research questions or problems d. feeling it is difficult to write in English due to not having enough language sources to express her ideas. Knowledge structure-thinking rule over language a. Knowledge structure: what she wants to say decides what language she needs to use or learn, sometimes she uses her first language as the way to find right expressions: structure-thinking rule over language</p> <p>October 28</p> <p>b. becoming confident and telling her worldview and criteria about good research work: her social genre knowledge? a. needing time to think to make a good research design: social genre knowledge? b. The area of the LR she is thinking a. hierarchical organisation of genre knowledge—she is learning language items related to social and cognitive genre knowledge</p>

Appendix J: Examples of the Analysis of the Final Literature Review Text

Less developed content knowledge and logical thinking (making possible and necessary thought relation) resulted in poor rhetoric (in terms of structuring sentences and lengthy texts). The meanings of sentences are not clear. Unrelated or loosely associated propositions are enumerated one after another, and on the whole, they didn't build up a tightly united body of knowledge yet. Headings indicate that her knowledge (thought) structure began to emerge.

Fadila - 2 x CGs
- most not classifiable

Literature Review

The research questions (see section 'statement of research questions' of this proposal) of this study arose from an interest in understanding the existing practice of ICT use in teacher education programme. This section provides a review of the literature relevant to this perspective along with an understanding of ICT, ICT integration in teacher education, factors affecting ICT integration in teacher education, teacher education for effective pedagogical practice with ICT, and finally the technological pedagogical and content knowledge (TPACK) framework.

Information and Communication Technology (ICT) Report (not prototype)

The definition of ICT is commonly described in relation to its different functions and types. UNESCO (1999) described ICTs as diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information. ICT tools can be considered as a range of hardware (desktop and portable computers, projection technology, calculator, data-logging and digital-recording equipment, software application (generic software, multimedia resources) and information system (intranet, internet) (Hennessy et al., 2005). ICT also includes technologies such as radio, television, video, DVD, telephone (both fixed line and mobile phones), satellite systems, and computer and network hardware and software, as well as the equipment. And services associated with the technologies, such as videoconferencing, e-mail and blogs. UNESCO (2007), reworded the term based on more functions that ICT enables 'ICTs' as forms of technology that are used to transmit, process, store, create, display, share or exchange information by electronic means. Thus, ICT can be assumed as an umbrella term that includes any communication device or application known to date.

However, the context of ICT use in different countries may vary depending on the accessibility and affordability within the country. For example Maldives has a relatively higher ICT penetration level particularly in terms of computers, mobiles, and televisions. It has achieved a near 100% mobile network coverage and nearly 90% of

Meta-discoursal text. Helping the reader + structuring her own knowledge (thought structure)

The use of headings let her (and other participants) achieve coherence to a certain degree

A

B

B

A

A

c/c

s/c/cr?

"a"

4.1 Emotions Discussion

Emotions are generally defined as a sense of strong feelings (Ratner, 2000). They are assumed to contrast with reasoning or thinking. Since early Western history, emotions have been thought to be in conflict with *reason*. According to Socrates, who considered emotions as weakness that needed to be controlled, emotions were seen as a threat to reason and a danger to philosophy and philosophers (Solomon, 2010). Moreover, a linguistic view has regarded emotions as subjective and non-scientific (Kęłbowska, 2012). As a result of these views, emotions have been placed in an inferior role. In Vietnam, by contrast, emotions have been placed in a higher position than reason in the culture of communication. Vietnamese people tend to see themselves as controlled by emotions when they try to solve a problem or make a decision. There is a popular belief that when two people are in conflict and even take each other to the court, they still believe in a Vietnamese saying that "*Bên ngoài là lí, bên trong là tình*" (its literal meaning is "outside is reason, but inside is emotion"). What can be interpreted from this saying is that although Vietnamese people appeal to justice to solve their problem, they are still inclined to their emotions. While in Vietnam, emotions are recognised as a legitimate part of thinking and problem solving, they tend to be ignored in education and language teaching. This issue certainly needs to be investigated and may receive wide support of Vietnamese people whose ideology seems to reflect LeDoux's (1998) comment that "minds without emotions are not really minds at all" (p. 25). In Vietnam, it is believed that human actions are performed and determined not only based on reason alone but on emotions as well. According to Ratner (2000), thinking entails feeling and vice versa. In this sense, emotions can be redefined as "feelings that accompany thinking" (Ratner, 2000, p. 6). In Ratner's view, emotions should not be separated from thinking or attributed to different processes. This is supported by Lewis's (2005) claim that emotions need to be studied in an interaction with other processes, particularly cognition. According to Izard (2009), there is a close connection among emotion, cognition and action, which is considered as

NP



2

central to emotion science.