



Thai second language writing: the development of language knowledge and cross-cultural influence

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**Thai second language writing: the development of language knowledge and
cross-cultural influence**

Nigel Woodward

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Abstract

A key element in improving both the assessment and learning of English as a second language (ESL) in English-medium schools is a deeper understanding of how language knowledge develops. However, relatively few studies have investigated the development of academic language in learners with ESL, and there appear to be no studies of this kind focusing on Thai learners. This study investigates the language knowledge of Thai learners of English in an English-medium international school in Bangkok, Thailand. The objective of the study was to understand both the developmental trajectory of features of academic language and the influence of Thai culture on English writing. The writing of two groups of Thai learners in year 9 of secondary school, Early Immersion (6-10 years in English-medium education) and Late Immersion (3-4 years of English-medium education) was compared. The writing of these two groups was also compared to that of English mother tongue (EMT) writers of similar age and the Thai writing of a group of Thai students of similar age studying in a Thai secondary school. The broad developmental pattern of Thai learners of English in this environment can be summarized as a movement from *simplicity*, through *complexity* to *control* and towards increasing *flexibility*. Late Immersion writers have achieved a degree of *complexity* but still lack *control* of some basic elements of clause structure. Early Immersion writers have achieved *control* of these features and are moving towards increasing *flexibility*, marked by the developing use of logical and experiential grammatical metaphor. Some features differentiating the English writing of Thai and English mother tongue writers can be best explained as the results of cultural influence. These include a tendency for Thai writers to make relatively frequent use of modal verbs with a deontic function when writing on certain topics and to be more indirect and less explicit when expressing opinions. The findings of the study have implications for both assessment and teaching. Assessment tools for both EMT and ESL writers would benefit from a more direct and precise reference to linguistic elements. Similarly, when teaching learners with ESL alongside EMT learners in secondary English classrooms, planning and teaching that includes exploration of how the grammar of English enables effective communication would arguably be appropriate for both groups.

Candidate's Statement

I, Nigel Woodward, declare that this thesis, 'Thai second language writing: the development of language knowledge and cross-cultural influence ' submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy, in the Faculty of Development and Society, Sheffield Hallam University, is wholly my own work unless otherwise referenced or acknowledged. The material has not been submitted, either in whole or in part, for an award or qualification at any other academic institution.

Nigel Woodward May 2014

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Section 1: Introduction

Chapter 1 – Introduction

1.1 BACKGROUND

The current study investigates the language knowledge of Thai learners in a small international school in Bangkok. The initial motivation for the study arose from the observation that testing procedures designed to evaluate the language development of native speakers in the UK (The English National Curriculum Levels, QCA, 2010) failed to adequately capture the levels of proficiency of the Thai learners with ESL in the international school in which I was working, often assigning the same English National Curriculum level to learners with quite different understandings of English and durations of exposure to the language. A more complete picture of the details of the developing language knowledge of these learners seemed crucial in accurately assessing their levels of proficiency and gaining a clearer understanding of how best to support their language learning. Woodward (2008) investigated the language knowledge of year 9 Thai pupils in this international school, comparing the writing of Early Immersion (Thai students in English-medium education since year 2 or earlier) and Late Immersion (Thai students in English-medium education from year 6 or later). The current study seeks to build on this earlier study by looking at the language used by two similar groups of Early and Late Immersion students in greater detail, and identifying the cultural and developmental factors that have shaped the students' language knowledge and, therefore, their writing.

1.2 OVERVIEW OF PREVIOUS RESEARCH

This study is primarily an investigation of the development of academic language knowledge, the language knowledge students need to gain access to the “registers of schooling” (Cummins, 2000 pp. 67). Cummins introduced the notion of academic language initially as a dichotomy between basic interpersonal communication skills (BICS) and cognitive, academic language proficiency (CALP), and later as a framework with 4 quadrants (see Chapter 3) highlighting that academic language was characteristically lacking immediate contextual guides to meaning and expressed cognitively challenging content. Biber (Biber, 1988; Biber and Conrad, 2009) and others (e.g. Schleppegrell, 2001;

Fang, Schleppegrell and Cox, 2005; Bailey, 2007) have added to this conception by identifying some important linguistic components of academic language both within schools and higher education. This work is complemented by research into the later language development and writing development of native speakers (e.g. Berman, 2004; Nippold, 1998; Christie and Derewianka, 2008; Myhill, 1999, 2008), which shows how developing the language required to communicate flexibly in a wide range of contexts and for a range of purposes is protracted, involving not only a development in pragmatic knowledge, but also changes in lexicogrammatical resources with increasing age. Features that become more frequent in the language of more mature language users include more elaborate nominal and verbal groups (Nippold, 1998), an increase in the frequency of abstract nouns (Nippold, Ward-Lonergan and Fanning, 2005), more frequent use of subordinate clauses (Crowhurst, 1980; Nippold, Ward-Lonergan and Fanning, 2005) and a more nuanced use of the interpersonal resources of the language (e.g. Meyer, 2008). The features of academic language are, therefore, late developing in native speakers, and rely on exposure to literate varieties of the language (Tolchinsky, 2004), such as the language used in literature and in school text books encountered by children as they engage in the process of education (Schleppegrell, 2001; Parkenson and Adendorf, 2005; Fang, Schleppegrell and Cox, 2006; Bailey, Butler, Stevens and Lord, 2007)

The development of academic language knowledge in second language learners has been examined from at least three perspectives: i) the time required for learners of a second language to develop parity with native speakers in academic language investigated by collecting data from examination results and officially mandated tests and examining them using statistical tools (e.g. Cummins, 1981; Collier, 1987, 1992; Hakuta, Butler and Wit, 2000); ii) the language knowledge of second language learners investigated by comparing their performance to that of native speakers from what is basically a developmental perspective (e.g. Hinkel, 2002; Cameron, 2003; Cameron and Besser, 2004; Reynolds, 2005); iii) how the first language and culture influences writing in the second language (e.g. Kaplan, 1966; Hinds, 1987, 1990; Hinkel, 1997, 2002, 2008; Indrasuta, 1988; Bickner and Peyasantiwong, 1988).

Researchers investigating (i) have concluded that as many as 8 years are required for ESL learners to achieve parity with native speakers in their academic language proficiency, though learners can achieve fluency in basic, interpersonal language in as little as 2 years in countries where English is the mother tongue. Research into (ii) has revealed that the language knowledge of advanced learners of ESL differs from that of native speaking peers in a number of ways that go beyond the typical errors made by many learners with ESL, with certain constructions less frequent in the writing of ESL learners and other constructions more frequent in ESL writing than EMT (English mother tongue) writing. This work has led to suggestions that factors including the nature of language items and constructions (simple or complex), the learning experiences of the learners (whether exposed to literate registers) and the first language and culture of the learners can each play a role in shaping the English language knowledge that develops. Research into (iii) has revealed that cultural patterns from the first culture are often drawn upon by learners writing in their second language, sometimes leading to distinctively non-native-like textual features. In the case of East Asian learners, research has suggested that expository writing may be organized more inductively, or with a delayed expression of purpose; texts may have a distinctively more indirect tone realized through lexicogrammatical choices such as modal adverbs; and that, when writing about certain topics, learners may write with a “hortatory style”, making relatively frequent use of deontic modals such as *should*.

Overall, it can be concluded that in order to understand the language knowledge of second language learners, it may be necessary to consider both cultural and developmental factors. Each may influence the rhetorical structures and lexicogrammatical choices learners make in their writing, and though it may not always be possible to categorically determine whether features that characterize the written language of learners with ESL arise primarily as a result of cultural or developmental factors, a careful review of literature into cultural psychology and cross-cultural variation in written language coupled with the conclusions of research into the academic language development of ESL learners compared to native speakers provides a framework for interpreting features insightfully.

1.3 CONTRIBUTION OF THE CURRENT STUDY

International schools offer natural laboratories for the study of language learning in immersion contexts, and yet few studies of second language development have been undertaken within these schools (see Wakabayashi, 2002, for a study in a Japanese international school). Moreover, there appears to be no published research on the development of academic language in students of secondary school age learning ESL in Thailand. Conclusions regarding the rates of progress made by learners and effectiveness of language learning through immersion have largely involved similar languages such as English and French (e.g. Harley et al, 1990; Lightbown, 2000). Very little work has been done on the development of the writing of school-age learners with first languages belonging to entirely different language families, such as English and Thai (see Tarone et al, 1993) for a study of South East Asian students in the United States). In addition, while studies of type (i) above suggest that acquisition of academic English is a prolonged process, the details of this process have received rather less attention. Important questions remain regarding the way constructions key to academic language accumulate within a learner's repertoire, and which constructions students struggle to learn. This is particularly true in the context of Thailand, where the few studies that have been undertaken on school-age learners have focused on cultural influences on writing (Indrasuta, 1988; Bickner and Peyasantiwong, 1988). Finally, few studies systematically investigate both the contribution of cultural and developmental components of the developing language knowledge of learners (Chao, 2008, is a rare example), though the research reviewed above suggests that both factors are likely to be important in understanding learning outcomes for students.

1.4 RESEARCH QUESTIONS

The current study seeks a better understanding of the developmental trajectory (changes over time) and cultural influences shaping the language knowledge and writing of Thai secondary school learners. The research, therefore, addresses two overarching themes: 1) The development of language knowledge over time; 2) The influence of a first culture on

second language knowledge and writing. In order to investigate these themes, the language knowledge evidenced in the writing of four groups of learners is compared: i) The Early Immersion Thai (EIT) group, comprising Thai learners who joined an English-medium international school in the early primary school years; ii) The Late Immersion Thai (LIT) group, comprising Thai learners who joined the international school in year 6 of primary or later, and were educated in Thai schools prior to that; iii) An English Mother Tongue (EMT) group studying in an English international school in Bangkok; iv) A Thai Mother Tongue group learning in a Thai school and writing in Thai (TWT). All groups of learners are approximately the same age and at the same stage in their education, year 9 in the English system. By comparing the language used by the Early and Late Immersion Thai groups to each other and to the other groups, it is hoped that an understanding of the way the resources of language develop, and the influence of culture on the use of these resources can be achieved.

The current study is exploratory in nature. In terms of research questions the study is best conceived on two levels: what might be termed a concrete level and an interpretive level. The latter identifies the general questions that the study seeks to answer; the former level operationalises these questions by framing them as specific questions about language knowledge that can be answered by the counting of lexicogrammatical features, comparing frequencies of features within texts, and the comparison of the way lexicogrammatical features are used by participants from different groups and the rhetorical structures developed within texts.

On an interpretative level the study asks the following questions:

1. How does the academic language knowledge of Thai learners in an English-medium international school develop over time?
2. To what extent and in what ways does Thai culture influence the writing of Thai students in English-medium education in Thailand?

The concrete questions asked by the study, which guide data collection and analysis, are as follows:

1. How is the language knowledge of Early Immersion Thai learners different to that of Late Immersion Thai learners?
2. How is the language knowledge of Thai Immersion learners different to that of English mother tongue writers of similar age?
3. Which anomalous features of Thai Immersion writing (when compared to EMT writing) parallel the features of Thai students of similar age completing the same writing tasks in Thai?

1.5 THE ORGANISATION OF THIS THESIS

The thesis begins by establishing a theoretical framework for the study: First, in chapter 2, linguistic theory identifying the nature of bilingual language knowledge and how it can be studied is reviewed. Second, in chapter 3, the nature of academic language and later language development in native speakers is discussed and some key linguistic features of academic language knowledge are identified. Following this, there is a literature review divided into two chapters which relate to the developmental and cultural themes investigated in the study: Chapter 4 reviews research into the academic language knowledge of second language learners, and how it develops over time. Chapter 5 examines research into culture and its influence on the English writing of writers with English as a second language. Following the literature study, the method (chapter 6) and then the results (chapters 7, 8 and 9) of the study are presented. Finally, the results are discussed (chapter 10) with focus on the developmental trajectory of Thai ESL learners and cultural factors that influenced the writing of the Thai subjects of the study. The implications of the study for both the teaching and assessment of language proficiency are then examined. Chapter 11 presents the conclusions of the study.

Section 2: Theoretical Framework

Chapter 2 Bilingual Language Knowledge

2.1 INTRODUCTION

This chapter examines the nature of bilingual language knowledge and the theoretical frameworks that can be employed to describe it. The chapter answers the following questions: What is being studied in this research project? What theories of language underpin the study? What basic methodological approach should the study adopt? Two theoretical approaches to the investigation of language knowledge are addressed in particular, Systemic Functional Grammar (SFG) (e.g. Halliday and Matthiessen, 2004; Martin, 1992; Martin and Rose, 2007, 2008) and Rhetorical Structure Theory (RST) (e.g. Mann and Thompson, 1988; Taboada and Mann, 2006). These approaches are described and then discussed critically with respect to the requirements of the current study. Following this, the nature of bilingualism and the notion of the native speaker are discussed and the concept of multicompetence (Cook, 1999) is introduced. Finally, approaches to researching language knowledge and writing are discussed.

2.2 COMMUNICATIVE COMPETENCE

The current study is an investigation of both writing and language knowledge. It is therefore important to establish what is meant by the term *language knowledge* before proceeding further. The terms competence and performance have been used to capture the difference between the knowledge system underlying language and the language produced under the processing constraints of real time communication (Chomsky, 2006, pp. 102). The notion of communicative competence extends the concept by including components of language knowledge beyond the initial Chomskyan conception of rules underlying core syntax: grammatical knowledge, pragmatic knowledge and strategic competence (Canale and Swain 1979; Douglas, 2000; Bachman and Palmer, 1996). Figure 2.1 below presents a model of communicative competence illustrating these points (adapted from Douglas, 2000, after Bachman and Palmer, 1996).

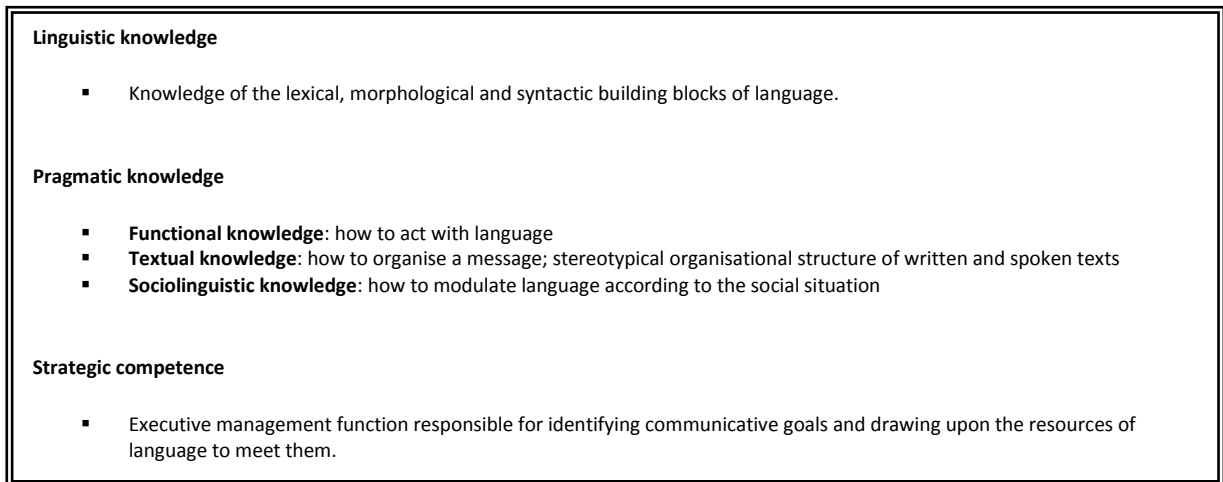


Figure 2.1: The fundamental components of communicative competence – summary of the construct (based on model by Douglas, 2000)

The diagram below (Figure 2.2, Celce-Murcia, Dornyei and Thurell, 1995) presents a very similar model in a manner that highlights the interconnected nature of these components of language knowledge. Actional competence corresponds to functional and textual knowledge, and when communication is in the written mode, the term rhetorical competence, the knowledge of how to organize propositional content to achieve local and global goals in a text, is preferred (Celce-Murcia, Dornyei and Thurell, 1995).

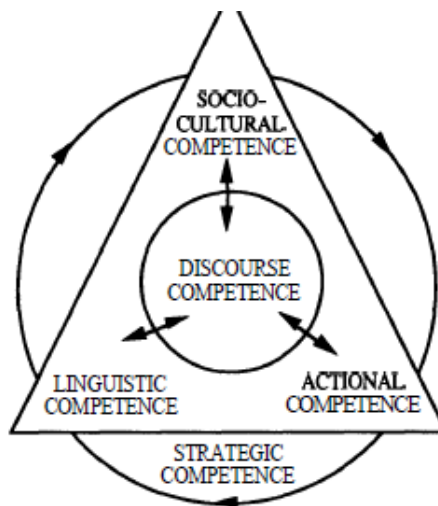


Figure 2.2: Communicative competence model put forward by Celce-Murcia, Dornyei and Thurell

The model by Celce-Murcia, Dornyei and Thurell (1995) highlights the important point that the components of language work together to enable a speaker/writer to participate in a discourse event. In the current study, the term *language knowledge* refers to both linguistic and pragmatic knowledge. In a study that investigates language knowledge by analyzing writing, there is an implicit assumption that the language that writers use is representative of their underlying knowledge systems. It should be acknowledged that strategic competence may also have an effect which cannot be separated from linguistic and pragmatic knowledge.

2.3 SYSTEMIC FUNCTIONAL GRAMMAR (SFG)

Systemic Functional Grammar (SFG) (Halliday and Mathiessen, 2004; Martin, 1992; Martin and Rose, 2007, 2008) provides a powerful complementary view of language knowledge, forging a link between functions of language and the lexicogrammatical items and constructions that realize these functions. The construct of communicative competence, discussed above, highlights the fact that text production relies on three broad components, linguistic knowledge, pragmatic knowledge and strategic competence. The SFG approach to language knowledge seeks to tie grammatical form to pragmatic function in its account of language, and to provide an explicit link between context and the language that is used in that context.

The notion of discourse competence as explicated in the model of Celce-Murcia et al (1995) implies competence in a communicative situation: If one has discourse competence, one is able to participate in a speech event, or construct a written text, drawing upon the requisite pragmatic and linguistic elements. In writing research, the term *genre knowledge* has been applied with similar meaning (Tardy, 2006; see also the term *rhetorical fluency* used by Reynolds, 2005). The model of genre developed in the Sydney School of systemic functional linguistics develops the idea of genre knowledge further (Martin, 1992; Martin and Rose, 2007, 2008). In SFG, A genre is defined as a staged, goal oriented social process, a definition that includes all modalities of language, not only writing (Martin and Rose, 2008).

In the model of genre proposed by Martin (e.g. Martin and Rose, 2008), genre is viewed as the context of culture in which language plays a part. The model also invokes a framework to define the context of situation in terms of three variables, field, tenor and mode (see table 2.1, below). The combination of these three variables gives rise to a particular register of language. The field of discourse is what is going on in the social process, or the topic area that is being dealt with in a text. Important questions to ask relating to field include whether or not a field involves some sequence of activities and whether the field involves a general class of things or one specific thing (Martin and Rose, 2008); the tenor refers to the relationships enacted through language, and notions such as relative power and social distance between interlocutors, or writer and audience; mode refers to the role language is playing in a social process – Is the field constructed through language, as in an academic text, or does language accompany the field, as in a sports commentary on the TV? Configurations of field, tenor mode and genre are the cues that members of a culture draw upon when participating in a social process, and becoming a member of a particular culture involves socialization into the language choices expected in various contexts of situation.

Returning to the notion of discourse competence put forward by Celce-Murcia, Dornyei and Thurell (1995), and genre knowledge (Tardy, 2006), the idea of genre within systemic functional linguistics elaborates on this construct by developing a theory linking the context to the language choices made, from the level of the clause to the whole text. In addition, a clearer link is made between the *linguistic competence* component in communicative competence, and other aspects of language knowledge. In SFG, lexicogrammar fulfils three meta-functions: ideational, interpersonal and textual. Ideational resources represent human experience, interpersonal resources enable language to negotiate human relationships and textual resources enable the message to be presented in such a way that it is understood. Language knowledge can be understood in terms of these three meta-functions. In other words, language knowledge is the knowledge of how to use linguistic resources to realise the three meta-functions appropriately, given a particular genre-field-tenor-mode configuration. Perhaps most importantly, in systemic functional theory,

language is viewed as the unfolding of the texts through which cultures are enacted, and therefore the theory is not marooned at the level of the clause, but provides a framework for understanding and analysing discourse.

Table 2.1: The Systemic-functional model of language knowledge (Adapted from Martin and Rose, 2007)

REGISTER VARIABLE	ASSOCIATED META-FUNCTION
Field – What is happening in the social process? What topic is being addressed?	The Ideational Meta-Function: Resources of language that represent human experience
Tenor – What is the nature of the relationship between speaker and listener, or writer and audience?	The Interpersonal Meta-Function: Resources of language that enable the negotiation of relationships, the expression of attitudes and emotions and the exchange of goods, information and services
Mode – What role is language playing in the social process?	The Textual Meta-Function: Resources of language that enable information to be organized into a clear message that can be understood by the listener or reader

i. Ideational Resources

The ideational resources of language include the basic structure of the clause. Systemic functional theory represents the resources available to construe experience at the level of the clause by reference to a nuclear model (Halliday and Matthiessen, 2004; Martin and Rose, 2007, illustrated below in figure 2.3).

The central element in the clause, at the heart of the “quantum of change” (Halliday and Matthiessen, 2004, pp 170) it represents, is the *process*, a verbal group. Moving outwards from the core, the second layer in the model represents the participants, nominal groups that are involved in the process. The third level in the model represents more peripheral elements, or circumstances, providing information such as the when, where, why or how of a process. This function is commonly performed by an adverb group or prepositional phrase.

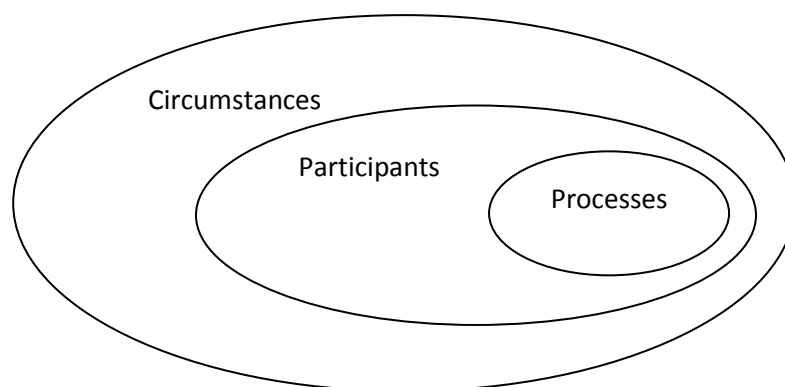


Figure 2.3: The nuclear model of the clause

The following clause exemplifies this model: **She** lost **her bag** *in the cinema*.

The *participants* of the clause are the nominal groups **She** and **her bag**; the process is the verbal group lost; a circumstance is expressed through the prepositional phrase *in the cinema*.

Process types are classified into the six groups (Halliday and Matthiessen, 2004) as illustrated in table 2.2 below.

Table 2.2: Process types (Based on Halliday and Matthiessen, 2004)

Process Type	Description	Examples
Material	Doings and happenings in the material world	The branch broke . They went to school.
Behavioural	Physiological and psychological behaviour	He was breathing slowly. The crowd laughed .
Relational	Processes that relate one participant to another	They had a huge garden. The movie was tedious. Crocodiles are reptiles. The earthquake caused massive destruction. His late arrival means he drank too much last night.
Existential	Processes of existing	There were a lot of angry people.
Mental	Processes of perception, affect, cognition and volition	He saw them arrive. She liked the song. He understood what Sam meant. They hoped for the best.
Verbal	Processes of saying	He says he likes her. She told him to come back later.

Above the level of the clause, the ideational resources of language enable clauses to be combined by *expanding* information using linking (coordinating) and binding (subordinating) conjunctions, and *projecting* clauses through mental and verbal processes. In SFL, a *paratactic* clause complex involves clauses of equal rank; a hypotactic clause complex involves a relationship between main and subordinate or dependent clauses. Table 2.3 below exemplifies the resources of expansion and projection.

Table 2.3: Examples of expansion and projection

	PARACTACTIC CLAUSE COMPLEXES	HYPOTACTIC CLAUSE COMPLEXES
Expansion	They enjoy tennis and have often visited Wimbledon. Chimps are often referred to as monkeys but they are actually apes.	Although he arrived early, all tickets were sold. He was late because the traffic was terrible.
Projection	“What times should I arrive?” he asked.	I think that you should come. She understands that he is busy.

The categories and frameworks for describing the structure of a clause and how clauses may be combined to form clause complexes, described above, are drawn upon extensively in the current study (see chapters 6 and 7).

ii. Interpersonal Resources

Interpersonal resources of language enable speakers and writers to “enact relationships” (Martin and Rose, 2007, pp. 7) through language; in other words, to make effective and appropriate use of language in a given situation by attending to the nature of the relationship between speaker/writer and audience and selecting language appropriate to realise the communicative goals of the speaker/writer.

As with the ideational resources of language, interpersonal resources operate at the level of the clause and above the level of the clause. The Mood system of grammar enables the giving and demanding of information, goods and services through declarative, interrogative and imperative forms. The current study is primarily concerned with the way interpersonal

resources are used to negotiate attitudes at the level of the text. Martin and Rose (2007) expand on the notion of the interpersonal meta-function by presenting a system framework for analysing the interpersonal resources of language, which they refer to as the Appraisal system. They suggest that an important aspect of the interpersonal features in text are concerned with “evaluation – the kinds of attitudes that are negotiated in text, the strength of feelings involved and the ways in which values are sourced and readers aligned” (Martin and Rose, 2003, pp. 25). The framework is illustrated below in figure 2.4 and exemplified further in table 2.4.

Figure 2.4: The Appraisal system of interpersonal language resources (From Martin and Rose,2007)

Diagram removed for copyright reasons.

Table 2.4: Examples of the resources of the Appraisal system

RESOURCE	EXAMPLES
Affect	Angry, pleased, bored, anger, pleasure boredom
Judgment	Intelligent, kind, kindness, a moron
Appreciation	Fantastic a good idea
Amplification	Gradable adjectives – good vs brilliant, intensifiers – <i>very, really, absolutely</i> swearing
Source	Mental and verbal processes for quoting and reporting speech and thought: <i>I think... Some people say...</i> Concession clauses and modal hedges that imply other voices in a text without explicitly referring to them: <i>It could be argued that Zoos are cruel animal prisons.</i>

This framework is of particular importance to the current study in that it enables a systematic analysis and discussion of resources that are sensitive to cultural influence.

iii. Textual resources and rhetorical competence

Textual resources enable speakers and writers to organize information so that the message can be followed by the listener or reader. At the level of the clause, the grammar provides options for the writer to make a choice regarding which element is presented in the foreground as the message's point of departure, and what is presented as new information. Table 2.5 below illustrates some of the choices that are available at the level of the clause.

Table 2.5: Options within the theme system

THEME	NEW (RHEME)
Frogs	are amphibians.
In the corner of the room	there was an old armchair.
Personally however, I	like durian.

In the first example above, the subject of the sentence, *Frogs*, acts as the point of departure for the message. This is the typical or “unmarked” situation in English. In the second example, a circumstance, the prepositional phrase *in the corner of the room*, has been placed in the theme slot. This use of a “marked” theme can allow writers greater flexibility in organizing the message, enabling transition between sub-topics (Martin and Rose, 2007, pp. 192). The third example includes an interpersonal theme (the adverb *Personally*) and a textual theme (the conjunction *however*) prior to the topical theme (*I*). The foregrounding of interpersonal elements and conjunctions in this way allows a writer to “make explicit the way the clause relates to the surrounding discourse (textual)” and project “his or her own angle on what the clause is saying (interpersonal)” (Halliday and Matthiessen, 2004, pp. 83). The current study examines the use of textual and interpersonal themes, and circumstances as themes (see chapter 7), which provide some insight both into how writers create cohesive links in text, and their ability to express ideas precisely and flexibly by varying the opening element in clauses and sentences.

2.4 DISCUSSION OF THE SFG APPROACH

The current study involves the identification and counting of linguistic features. Many studies that have involved the categorising and counting of features (e.g. Hinkel, 2002; Biber, 1988) have drawn upon more traditional grammatical descriptions. The advantage of using SFG is the clear and comprehensive framework it provides linking language use from the word, up through the clause and clause complex, to the text. The categories defined within SFG provide a descriptive framework for studying the clauses, sentences and texts used in writing. How this is achieved is detailed in chapter 6, which presents the method of the study. A possible criticism of the SFG approach is that certain categories suffer from a degree of indeterminacy, where categories are blurred and may overlap. For example, the verb *want* can be both a mental process and a phase verb (like *start* or *stop*) that modifies another verb. It can be argued, however, that this indeterminacy is a characteristic of language rather than systemic functional grammar, and should therefore not be seen as a weakness in the approach.

2.5 RHETORICAL STRUCTURE THEORY (RST)

As well as focusing on the lexicogrammatical resources of writers, the current study is also concerned with the ways in which writers organise propositional content within their texts. Two complementary but distinct approaches have been taken to text structure analysis: i) move structure analysis (Swales, 1990); ii) clause relation analysis (e.g. Rhetorical Structure Theory, Thompson and Mann, 1987). The former approach, pioneered by Swales (1990), seeks to divide a text into a series of rhetorical moves, which each contribute to the overall communicative purpose of the text. In the latter approach, the juxtaposition of propositional content at the level of the clause, or larger segments depending on the purpose of the analysis (O'Brien, 1995), is analysed with a view to understanding the writer's purpose in placing one segment of text adjacent to another. For reasons detailed below, the current study draws upon Rhetorical Structure Theory.

Rhetorical Structure Theory ((RST)Thompson and Mann, 1987; Mann and Thompson, 1988; Taboada and Mann, 2006; Taboada, 2014), a functional theory of text coherence, offers an

approach to analysing text structure in a “bottom up” manner, enabling analysts to identify how propositional content has been organized to achieve local and global rhetorical goals. The fundamental idea underpinning rhetorical structure theory is that segments of coherent written discourse are purposefully juxtaposed by the writer with the intention of acting on the reader. Related text segments, from the level of the clause up, that have been juxtaposed are identified as either the nucleus or the satellite. The nucleus is the segment more central to the text’s purpose; the satellite is content that is added in order to achieve a particular effect on the reader, such as to promote belief in a proposition by providing evidence. The simple clause pair below (Figure 2.5) exemplifies this.

Buy one. Get one free.

- 1) Buy one. (nucleus)
- 2) Get one free. (satellite)

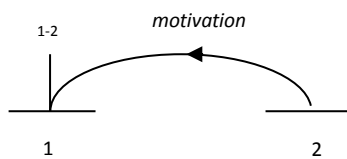


Figure 2.5: An example of an RST relation (Adapted from Azar, 1999)

In rhetorical structure theory (RST) two text segments related by a particular rhetorical relationship are represented by lines (1 and 2 in the diagram above). A vertical line represents the nucleus and an arc connects the satellite to the nucleus, with an arrow pointing in the direction of the nucleus. In the example above, the two elements are related by the rhetorical relation known as *motivation*. That is, the satellite motivates the reader to perform the action in the nucleus. Rhetorical relations are formally defined in terms of the constraints on the nucleus and satellite elements, and the effect the juxtaposition of nucleus and satellite is intended to have on the reader. Appendix i. presents a list of relation definitions used in the current study (from Taboada, 2014, RST website). RST relations are further exemplified in the section presenting the method of the study.

An RST analysis of a text identifies a hierarchy of such relations, ultimately including a single relation that defines the purpose of the whole text. For example, in a persuasive text, the overall text might be represented by the *evidence* relation, where the satellite segment of the whole text, which may consist of several paragraphs, works to increase the reader's belief in the nucleus, perhaps located at the beginning or the end of the text. This is exemplified in the section presenting the method of the study.

As Kong (1998) has argued, move structure analysis and RST analysis are complementary, bringing different aspects of text structure to light. Move structure analysis focuses on the conventions of a particular discourse community, identified in terms of a genre's typical rhetorical moves, and the realisation of these conventions by writers; Rhetorical Structure Theory focuses on the individual writer and the rhetorical choices the writer makes as a text is constructed. The current study concerns young 'apprentice' writers, with a developing but potentially incomplete awareness of the conventions of many genres. One reason why Rhetorical Structure Theory was preferred as an approach in the current study is that it does not take the organisational conventions of a particular genre as its point of departure for the analysis, as is the case with move structure analysis. The structure of a text emerges *from* the analysis rather than being the basis *for* the analysis. O'Brien (1995) used RST analysis in a study of student writing, finding it useful in identifying areas of text where cohesion broke down. This suggests RST is appropriate for unpicking the structure of inexperienced writers. Similarly, Woodward (2008) used RST to analyse the structure of the English writing of Thai immersion writers.

The current study is concerned with both developmental and cultural factors influencing writing. The move structure conventions of texts may vary somewhat between cultures (Taylor and Chenghuang, 1991), and move structure analysis has been used to study cross-cultural variation and influence in writing (Taylor and Chenghuang, 1991; Kong, 1998). However, when approaching texts written by young writers, it could be argued that RST analysis is preferable as a means of identifying cultural patterns and cross-cultural influence. Young learners may have an incomplete understanding of move structure

conventions of their first and second languages. Nevertheless, cultural understandings may still be manifest in the choices that young learners make as they construct texts, and these features may be examined through the clause relational approach of Rhetorical Structure Theory. In other words, rhetorical relations within a text may be sensitive to a deeper cultural psychology that underlies the move structure conventions of a culture (see discussion of cultural psychology in chapter 5).

2.6 DISCUSSION OF RST

It should be acknowledged that rhetorical structure analysis as an approach to the investigation of discourse structure has been the focus of some criticism. Martin (1992) highlights a number of issues with the approach, notably the argument that RST analysis does not accurately represent the way texts unfold in the writing and under-represents the importance of multi-nuclear relations such as *conjunction* (see Appendix i. for formal definitions). Martin points out that text segments may have more than one rhetorical relation simultaneously. For example, in an argument, the evidence may be related to the thesis by the *evidence* relation and to other evidence segments by the relation of *conjunction*. RST, however, only allows one of these relations to be represented. A further issue regards texts in which a thesis is stated initially and then reiterated in a final segment of the text. One of these segments has to be designated as the nucleus of the whole text, a somewhat arbitrary decision, according to Martin (1992). It could, in addition, certainly be argued that the key assumption that underpins RST analysis, namely, that texts articulate a single, overarching rhetorical purpose which can be neatly represented as a single relation, does not necessarily hold for texts written by school pupils under exam conditions. Finally, as an analytical technique, it is also important to acknowledge the subjective nature of an RST analysis. An RST analysis of a text is a “reading” (Mann, Matthiessen and Thompson, 1989) of the writer’s intent by the analyst, and in many instances more than one reading may be valid. Nevertheless, in the current study, rhetorical structure theory was preferred to move structure analysis, as the approach is appropriate to the requirements of the current study, for reasons outlined above.

2.7 MULTICOMPETENCE, BILIGUALISM AND THE CONCEPT OF THE NATIVE SPEAKER

The current study is concerned with understanding the English language knowledge of Thai learners. An approach frequently adopted in research (e.g. Hinkel, 2002; Cameron and Besser, 2004) is to compare the writing of native speakers of English to that of writers with English as a second language. This approach is adopted in the current study, and it is therefore of some importance to explore what is meant by the term “a native speaker of English” in the current study, and how the language knowledge of Thai Immersion learners, bilingual in English and Thai, should be viewed relative to the language knowledge of native speakers.

English is increasingly a World language (Crystal, 2003) in the sense that it has been adopted as an official language within a relatively large number of countries, and is the primary foreign language taught within schools in many other countries (Crystal, 2003). Given that this is the case, the term, “native speaker” with its implication of language ownership might be considered somewhat problematic. Nevertheless, it can be argued that the concept of an English mother tongue group is meaningful and useful in the context of the current study. The purpose of comparing the language knowledge of Thai Immersion writers to an EMT group in the current study is twofold: 1) to help identify features of language knowledge that are acquired with difficulty by Thai Immersion learners in an immersion context even after many years of immersion in English at school; 2) to help identify features of the English writing of Thai Immersion learners that may indicate the influence of Thai culture. In this context, to provide a useful point of comparison with the Thai Immersion groups, members of the EMT group need to be culturally Anglophone. This is taken to mean that English is the only language spoken at home, with parents from a country where English is the native language, such as the United Kingdom, who are thus likely to hold Anglophone cultural values (Hofstede, 1980; Hofstede, 2009 a.; Schwartz, 1999). They therefore contrast with the Thai Immersion groups in terms of their primary culture and its associated values and with respect to the language they learned at home during the pre-school years.

It is also important to consider how the English language knowledge of the Thai Immersion learners in the current study should be viewed relative to their EMT peers. The models of language knowledge outlined above capture the nature of communication and the components of language knowledge that enable successful communication to take place. In studying the language knowledge of bilingual learners such as the Thai Immersion groups in the current study, it is necessary to extend these conceptions to encompass two or more languages in one mind. The view of language knowledge as multicompetence, put forward by Cook (Cook, 1999; Hall, Cheng and Carlson, 2006; Jarvis and Pavlenko, 2008), stresses that the bilingual's knowledge of a second language is not simply a deficient version of a mono-competent individual's knowledge. Rather, bilingual language knowledge is viewed as a complex system (Larsen-Freeman, 1997) where the languages of a multi-competent individual interact leading, amongst other things, to 'transfer' phenomena (Jarvis and Pavlenko, 2008). Such phenomena can involve all the components of communicative competence (Jarvis and Pavlenko, 2008), may be bidirectional in nature, with the second language influencing the first (Jarvis and Pavlenko, 2008) and do not necessarily result in a language deficit. The fact that knowledge primarily built using one language may be drawn upon when communicating in another has also been highlighted by Cummins (2000 pp. 38), who used the term common, underlying proficiency (CUP) to refer to "the cognitive/academic proficiency that underlies academic performance in both languages." This accounted for the fact that students with literacy skills in one language were able to draw upon this knowledge when using a second language.

In the current study, therefore, the language knowledge of Thai learners is compared to that of EMT learners, since these groups differ along cultural and linguistic dimensions significant to the objectives of the study. The Thai learners of English in the study are viewed as multicompetent, with systems of language knowledge that involve two languages and cultures, Thai and English. The current study seeks to better understand the development of this language knowledge system and the ways in which language use in English writing may be influenced by the first culture, Thai.

2.8 STUDYING LANGUAGE KNOWLEDGE

A number of approaches have been applied to the study of language knowledge, including quasi-experimental research into the development of grammatical morphemes (Larsen-Freeman and Long, 1991, pp. 20), the analysis of discourse for specific features such as past tense marking (Larsen-Freeman and Long, 1991, pp. 30, 62-63), scoring protocols assessing various aspects of writing and written language (e.g. Harley et al, 1990; Wakabayashi, 2002), and the use of think-aloud protocols to gain insight into the thinking behind choices that writers make (Hyland, 2002, pp. 183). The current study is particularly concerned with understanding the developing resources required to control “the registers of schooling” (Cummins, 2000, pp.67). Academic language is primarily though not exclusively written language, and therefore it is logical to analyse the written language of study participants if we are interested in this aspect of language knowledge. Models of writing expertise and the writing process (e.g. Chenoweth and Hayes, 2001; Flower and Hayes, 1981) highlight the components of knowledge and psycholinguistic processes that are implicated in written production. Drawing on such models, some studies have sought to study language knowledge and writing skill as separate traits, using tests to assess the grammatical knowledge of writers and scoring rubrics to assess the quality of their writing, and have even, in some cases, concluded that these traits are not only separable, but may not correlate strongly (e.g. Schoonen et al, 2003). These approaches are problematic in that they may fail to differentiate between the competence that underlies basic interpersonal communication and that which underlies use of language in academic contexts (BICS vs CALP, Cummins, 2000). Studies of later language development and the development of the linguistic resources in the writing of native speakers (e.g. Crowhurst 1980; Nippold, Ward-Lonergan and Fanning, 2005; Christie and Derewianka, 2008) have, in contrast, sampled the written language of study participants, since writing provides a context for the production of late developing linguistic features. The current study follows this approach, and therefore begins from the premise that close analysis of the features of written language provides an insight into the underlying knowledge systems that learners have developed.

2.9 CONCLUSIONS AND IMPLICATIONS FOR THE STUDY

Language knowledge comprises a number of components, which are identified in models of communicative competence. Three components in particular, linguistic and pragmatic knowledge and strategic competence capture the fundamental nature of language knowledge. While recognizing the contribution of models of communicative competence, the current study draws upon functional descriptions of language, which provide the tools to analyse the features of text. The study is informed by the view of bilingual language knowledge known as multicompetence, which stresses the influence of first language and culture on the evolving system of a second language. The study investigates the language knowledge of Thai learners by sampling their writing, which is considered a sample of academic language, and a window into their developing language knowledge.

Chapter 3 Academic Language Knowledge and the Later Language Development of Native Speakers

3.1 INTRODUCTION

This chapter reviews the literature pertaining to the linguistic characteristics of academic language knowledge. It expands upon the previous chapter by identifying the constructions and other features whose frequent use characterizes academic discourse and the linguistic changes that native speakers go through in later childhood and adolescence during formal education, the time when they become “linguistically literate” (Ravid and Tolchinsky, 2002). The chapter explores the following questions: What is academic language? Which grammatical constructions and rhetorical features can indicate growing control of the registers of schooling?

3.2 ACADEMIC LANGUAGE

Cummins (e.g. Cummins, 2000) explains the difficulties orally fluent learners of ESL have in academic contexts by putting forward the BICS (basic interpersonal communication skills)/CALP (cognitive, academic language proficiency) dichotomy. BICS is the language of everyday conversation. CALP is the language required in academic contexts. This notion was later expressed as a diagram of four quadrants marking variation within two dimensions: context embedded to context reduced, and cognitively simple to cognitively challenging (see figure 3.1 below, from Cummins, 2000). When language activities take place within the context reduced quadrant, meanings are “freestanding”, with relatively little support from the immediate context. The notion of cognitive challenge encompasses the more abstract, “uncommon sense” meanings (Martin, 2007, pp. 57-59) that students are increasingly required to represent linguistically as they progress through school. The linguistic demands of cognitively challenging, context reduced tasks are therefore very different to the demands posed by more context embedded, cognitively simple situations such as face to face interaction involving everyday topics, where interlocutors can respond to each other and easily repair breakdowns in communication, and where topics are familiar. According to Cummins, BICS could be learned relatively quickly, in as little as 2

years, but mastering the resources of CALP could take a bilingual learner 8 years or more (Cummins, 2000).

Diagram removed for copyright reasons

Figure 3.1: Cummins' conception of academic language (From Cummins, 2000)

The term *literate language* has been used by some researchers to refer to academic language (Greenhalg and Strong, 2001). Greenhalg and Strong (2001) use the terms oral vs literate language in a similar fashion to the BICS/CALP dichotomy suggested by Cummins (Cummins, 2000). In the current study, literate language and academic language are used synonymously.

Research by Biber (1988) identifying the dimensions of variation that characterize English text supports the notion that academic registers are characterized by linguistic features that are relatively rare in conversation. Biber (1988) identified six dimensions that define variation between the written and spoken texts in a large corpus (See table 3.1 below). In the table, "positively loaded features" refers to features that occur frequently in texts on the left side of the dimensional label in the first column. For example, text that is interactional, spontaneous and involved would be characterised by the relatively frequent occurrence of mental processes, present tense, first person pronouns, wh- questions and contractions. These features would be infrequent in text that was high information, edited discourse. Negatively loaded features display the opposite pattern. Thus, high information, edited discourse (Dimension 1) would be characterized by the relatively frequent occurrence of nouns, prepositional phrases, passive verbs and participle modifiers.

Table 3.1: Biber's dimensions differentiating English text types (simplified from Biber, 1988)

Dimension	Positively Loaded Features	Negatively Loaded Features
1. Interactional, spontaneous and involved discourse vs High information, edited discourse	Involved Discourse Mental processes, present tense, wh- questions, contractions, second person pronouns, first person pronouns	Edited Discourse Nouns, prepositional phrases, passive verbs, participle modifiers, attributive adjectives
2. Narrative vs non-narrative discourse	Narrative Discourse Past tense verbs, third person pronouns, perfect aspect verbs, verbal processes	Non-narrative Discourse Present tense verbs attributive adjectives, past participle modifiers
3. Explicit, context-independent reference vs non-specific, situation-dependent reference	Explicit Reference Relative clauses on the subject and object position, phrasal co-ordination and nominalizations	Situation-Dependent Reference Time and place adverbs, and other adverbs
4. Overt expression of persuasion vs non-persuasive discourse	Overt Persuasion Infinitives, prediction modals, suasive verbs, conditionals, deontic and epistemic modals	NONE
5. Informational discourse that is abstract and technical vs non-abstract discourse	Abstract Discourse Cohesive conjunctions, passive verbs, adverbial past participle clauses, past participle modifiers	NONE
6. Informational discourse produced under real-time constraints (i.e. non carefully edited) vs other discourse	Real-time Informational Discourse <i>that</i> marking projection clauses, <i>that</i> relative clauses in the object position, demonstratives	NONE

Dimensions 1 (Edited Discourse), 3 (Explicit Reference) and 5 (Abstract Discourse) appear to correlate most closely with Cummins' conception of context reduced academic language. The features of these dimensions enable the expression of explicit reference through the post modification of nominal groups, the expression of abstract concepts through nominalization, and the dense packing of information in planned discourse resulting in a high ratio of nouns to verbs. Analysis of language within school texts (Bailey,

Butler, Stevens and Lord, 2007; Fang, Schleppegrell and Cox, 2006; Schleppegrell, 2001; Parkenson and Adendorf, 2005) reveals similar trends in language use, highlighting the importance of complex nominal groups in academic discourse, along with the relatively high frequency of passive verb forms in texts from certain curriculum areas (Bailey, Butler, Stevens and Lord, 2007).

3.3 DISCUSSION OF THE CONSTRUCT OF ACADEMIC LANGUAGE

One possible criticism of the construct of academic language defined by Cummins (e.g. Cummins, 2000) is that it is an oversimplification. Even in the context of a school, the writing in different academic disciplines demands control of somewhat different resources (Christie and Derewianka, 2008; Bailey, Butler, Stevens and Lord, 2007). Nevertheless, the basic premise that the processes involved in formal education place different linguistic demands on the individual than informal face-to-face conversation seems sound.

The empirical work of Biber (1988) and others supports the suggestion that certain features of language function to enable the expression of more planned, abstract, informationally dense discourse, and may therefore need to be mastered if a learner is to communicate effectively in academic contexts. The strength of this work lies in its empirical foundation involving the analysis of a large corpus of texts. However, it is important to recognise that the dimensions identified by Biber (1988) paint a picture with rather broad brush strokes of variation across the whole of the English language and may fail to capture important details of certain registers more particular to schooling (see Christie and Derewianka, 2008, for a discussion of writing in different school subjects). When the current study refers to academic language, it invokes Cummins' concept (e.g. Cummins, 2000), and in attempting to understand the linguistic features that may enable control of academic language, the study draws upon the work of Biber (1988), and others (e.g. Bailey et al, 2007; Fang, Schleppegrell and Cox, 2006; Schleppegrell, 2001; Parkenson and Adendorf, 2005) who have looked at language used in school texts. The following section seeks to add to the picture of the nature of academic language by exploring research into

the later language development of native speakers of English, including linguistic development in writing.

3.4 LATER LANGUAGE DEVELOPMENT IN NATIVE SPEAKERS

Research into the later language development of native speakers provides further insight into the challenges faced by learners with ESL in academic contexts. Berman (2004) characterized the prolonged nature of language development through childhood and adolescence, and into adulthood as the contrast between early emergence and late mastery of language. Later language development was characterized by Berman (2004, pp. 9) as involving:

1) *linguistic* command of the full range of expressive options, both grammatical and lexical; 2) the *cognitive* ability to integrate forms from different systems of the grammar, and to deploy these forms to meet different communicative goals and discourse functions, and 3) *cultural* recognition of what constitutes the favored options of a given speech community, adapted to varied communicative contexts and to different norms of usage.

This highlights the importance of developments in pragmatic knowledge in later language development, as adolescents develop the “linguistic literacy” (Ravid and Tolchinsky, 2002; Tolchinsky, 2004) to deploy linguistic forms appropriately in an increasingly broad range of contexts and for an increasing variety of purposes. A consequence of the growing range of linguistic options available with increasing maturity is the growing diversity of use between individuals communicating in the same context (Tolchinsky, 2004). In the current study, this consequence needs to be born in mind as it has the potential to lead to significant within-group variation in the frequency of linguistic features in writing.

Later language development is characterized by not only changes in the way existing resources are deployed, but also by recognizable changes in the frequency and variety of items and constructions used during communication. Researchers (Nippold, 1998; Nippold, Ward-Lonergan and Fanning, 2005; Nippold, Hesketh, Duthie and Mansfield, 2005; Crowhurst, 1980) have highlighted a gradual increase in sentence length both in terms of the number of words and the number of clauses deployed within sentences with age

through childhood and adolescence, and into adulthood, which can be traced to the increasing complexity of sentence constituents, as well as the tendency to construct complex sentences involving subordinate clauses rather than the speech-like chaining of clauses of equal rank (Nippold, Ward-Lonergan and Fanning, 2005; Nippold, 1998; Crowhurst, 1980, 1983; Myhill, 1999, 2008). Myhill (2008) also highlights the fact that developments of sentence complexity in writing is accompanied by a growth in pragmatic knowledge and strategic competence regarding how sentences of different length may be effectively deployed for rhetorical effect as learners progress through the secondary years.

Other specific areas of change include growth in the complexity of nominal groups (Nippold, Ward-Lonergan and Fanning, 2005; Ravid and Berman, 2010) both in terms of the use of nominalizations and other abstract nouns, and in the use of post-modification through prepositional phrases and relative constructions (Ravid and Berman, 2010); increasing complexity in verbal groups through control of such features as secondary tenses, modal verbs and passive voice (Nippold, 1998, pp. 160); and the increasing use of cohesive conjunctions to signal logical relations and transitions within discourse (Nippold, 1998; Nippold, Ward-Lonergan and Fanning, 2005).

One key development as students move from primary education into secondary education is the development of grammatical metaphor (Halliday, 1993; Martin and Rose, 2008; Martin, 2007; Martin and Rose, 2007; Christie and Derewianka, 2008). In systemic functional linguistics, the term grammatical metaphor is used when one grammatical system is realised through another (Martin, 2007). In academic registers, for example, processes, typically realised through a verbal group, are frequently nominalised and treated as things, thus allowing a process to become a participant in a clause:

Destruction of rainforests *threatens a number of species with extinction.*

Here, the process *destroy* has been nominalised and can thus become the subject of the verb *threatens*. Nominalisations of this kind enable the development of increasingly abstract and informationally dense discourse. This kind of grammatical metaphor is

classified as experiential (Halliday and Matthiesen, 2004) as it involves the resources of language which construe experience.

A second form of grammatical metaphor important in academic discourse is logical metaphor. Adjacent propositions in coherent discourse are logically related one to the other. When the propositions are expressed as clauses, logical relations can be marked using conjunctions or conjunctive adjuncts:

Large areas of forest are being cleared each year. As a result, the remaining habitat for rainforest species is shrinking.

The two propositions could, however, be expressed in a single clause:

The clearing of large areas of forest each year has resulted in the shrinkage of habitat for rainforest species.

In this case, the logical relationship between propositions has been encoded in the verbal group rather than through a conjunction between sentences. This is therefore referred to as logical grammatical metaphor. In the taxonomy put forward by Halliday and Matthiessen (2004), both of the examples above form part of the ideational system of meaning and are therefore examples of ideational grammatical metaphor.

The frequent occurrence of ideational metaphor in academic text (Biber and Conrad, 2009) marks it as a key resource for academic literacy and educational success. The transition from primary to secondary school demands that students begin to control these resources (Martin and Rose, 2008; Halliday, 1993), and Martin (2007, pp.49) refers to grammatical metaphor as the “gatekeeper” of higher learning. According to Christie and Derewianka (2008), grammatical metaphor provides a resource crucial to the expression of technicality in academic texts and enables the compression of information into dense nominal groups, an important resource for effective argumentation. The increasing use of ideational grammatical metaphor marks a “drift of meaning” (Martin and Rose, 2007 pp. 110) from the verbal group into the nominal group in literate and academic varieties of English, with complex and increasingly abstract nominal groups linked by relational processes leading to

an associated increase in the proportion of relational processes as compared to material processes.

In addition to these ideational resources, the appropriate use of interpersonal resources within academic writing is a marker of growing sophistication in both secondary and tertiary students. The deployment of interpersonal elements within the theme of clauses has been shown to be a characteristic of highly rated student essays in subject English at senior secondary level (Meyer, 2008). Similarly, the ability to express “finer feelings” (Christie and Macken-Horarik, 2007, pp. 175) in writing through the judicious use of the resources of Appraisal (Martin and Rose, 2007) is highly valued by teacher markers from subject English. Christie and Derewianka (2008) show how developments in the range of interpersonal resources and how they are deployed by writers is central to writing development through primary and secondary education. Writers develop a more extensive range of language for expressing attitudes, grading the strength of those attitudes and aligning themselves or distancing themselves from certain attitudes expressed in their writing.

The importance of the interpersonal meta-function in academic writing at tertiary level has been highlighted by Hyland’s research focusing on meta-discourse in academic writing (Hyland, 1998; Hyland, 2001; Hyland, 2004). This work demonstrates the linguistic means by which writers involved in academic research construct a dialogue with their reader in order to make their work persuasive: “Any text anticipates a reader’s response and itself responds to a larger discourse already in progress, so argument incorporates the active role of the addressee...” (Hyland, 2001, pp. 551). The interpersonal features identified by Hyland, classified as interpersonal meta-discourse (Hyland, 1998), include modal adjuncts of various kinds (Hedges: e.g. perhaps; Emphatics e.g. In fact; Attitude markers e.g. surprisingly; Relational markers e.g. you can see) as well as the judicious use of personal pronouns, which can function to build solidarity between the writer and his audience.

Finally, the development of rhetorical knowledge (Celce-Murcia, Dornyei and Thurell, 1995), the ability to effectively organize propositional content so the message can be

followed by the reader, and to achieve local and global goals within a text, is a crucial element in the development of academic language. This includes knowledge of how the present information within the clause, paragraph and whole text as “waves of information” (Marin and Rose, 2007, pp. 188) through the effective use of Themes (the foregrounded element in a clause or sentence), hyperThemes (topic sentences) and macroThemes (segments of discourse which organize the text above the level of the paragraph, such as the introduction of a text) (Martin and Rose, 2007). In addition to this, rhetorical knowledge includes the stereotypical ways propositional content is organized at the whole-text level within a particular genre, as well as the way rhetorical structures can be deployed within a text to achieve local rhetorical goals such as to make a claim and present evidence to support it. (Kamberelis, 1999; Kamberelis and Greene, 1992; Boscolo, 1990; Favart and Coirier, 2008)

Christie and Derewianka (2008) present a developmental trajectory for the linguistic features of writing during the school years, based on extensive empirical research. This serves as a useful point of comparison for the current study. Table 3.2 below presents a simplified version of their findings up to the 13-15 year age bracket from which learners were drawn in the current study.

The picture presented by Christie and Derewianka (2008) further underscores the developmental trends identified in the preceding discussion of later language development. The growing control of experiential and logical grammatical metaphor during mid-adolescence enables writers to compress information and to express meanings more flexibly. Returning to the conception of academic language put forward by Cummins (2000), grammatical metaphor enables the expression of abstract, cognitively challenging concepts. The control of clause types involving the growing range of dependent clauses that emerges in late childhood to early adolescence and the increasing use of non-finite clauses within mid adolescence is another important trend enabling further flexibility of expression.

Table 3.2: A developmental trajectory for English writing (adapted from Christie and Derewianka, 2008, pp.218-221)

	Early Childhood 6-8 years	Late Childhood to Early Adolescence 9-12 years	Mid-adolescence 13-15 years
Global phases of development	Simple “commonsense” knowledge is expressed through congruent grammar and simple attitudinal expressions.	“Commonsense” knowledge is elaborated as grammatical metaphor emerges; interpersonal resources are extended.	Knowledge becomes more “uncommonsense” and is expressed through a greater range of grammatical resources, including some purposeful use of grammatical metaphor; interpersonal resources expand further.
Participant noun groups	Participants are largely realized through simple nominal groups, though there may be embedded clauses.	Participants are realized in expanded nominal groups involving pre and post-modification.	Participants are realized in dense nominal groups involving increasing abstractions and/or technicality, including nominalizations.
Processes (verbal groups)	Processes are realized through simple verbal groups. (i.e. less modification through phase constructions, secondary tenses and modal verbs)	Processes may be realized through expanded verbal groups (i.e. with phase constructions, modal verbs, secondary tenses)	The full range of process types may occur. Processes often expanded with phase constructions, modal verbs and tense.
Knowledge of clause types and logical connections between clauses	Sentences may consist of single clauses or combined clauses of equal status. The commonest subordinate clauses are of time. Occasionally, non-finite clauses of purpose are used.	Clauses of equal status remain, but a growing range of subordinate clauses appears, including clauses of reason, condition, concession and manner. Non-finite clauses appear a little more often, and some clauses of projection are used.	Sentences exhibit a range of clause types, singular, equal and unequal used in different combinations. Logical grammatical metaphor is sometimes used to compress clause complexes into single clauses. Non-finite clauses are quite frequent.
Knowledge of the interpersonal resources of language	There is a tendency to use the first person. Attitudinal expressions, when present, are simple. Affect is expressed through adjectives occasionally with intensifying adverbs, and verbs of affect (e.g. like, love). There is a limited awareness of audience.	There is a greater use of the third person. Modal verbs are occasionally used. Attitudes are expressed through adverbs as well as adjectives, and there is a growing range of intensifiers. Attitudinal expression is more evident, depending on the field involved. There is a more marked awareness of audience.	There is a more regular use of third person with first person reserved for particular genres. Modal adverbs and verbs are used selectively, depending on the genre. An extensive lexis for expressing attitudes is available. A greater awareness of audience and some understanding of different perspectives are evident.
Textual knowledge	Simple, repetitive topical Themes are often realized through the first person pronoun. Sometimes there is uncertain use of reference to establish links across sentences.	There is a developing variety in the Themes of clauses and sentences, with circumstances and dependent clauses purposefully foregrounded in some instances. Reference is controlled more effectively.	There is greater use of dependent clauses in theme positions. Writers begin to control the flow of information more effectively within the text through hyperThemes (topic sentences) and macroThemes (segments of the discourse that organize a text above the level of the paragraph, such as an introduction).

3.5 CONCLUSION AND IMPLICATIONS FOR THE STUDY

Academic language knowledge is a fuzzy category in the sense that one cannot differentiate a set of language knowledge categories, which can be precisely defined and differentiated from each other in terms of their linguistic features. The concept is nevertheless a useful one in providing a focus for data collection and analysis. Controlling the “registers of schooling” (Cummins, 2000, pp. 67) involves knowledge of constructions that enable the production of informationally dense, abstract discourse with explicit reference, features that are less frequent in informal conversation. However, it also demands control of features less regularly associated with academic discourse defined narrowly, notably control of a range of clause types, including finite and non-finite dependent clauses, and the interpersonal resources that enable a writer express subtle attitudes towards both subject matter and the reader. There is a clear and unsurprising overlap between features of later language development and features that occur frequently in academic discourse. Together, research into the later language development of native speakers and the features characteristic of academic text point to the linguistic features that may mark a growing ability to produce academic discourse. The corpus linguistic work of Biber and others (e.g. Biber, 1988; Biber and Conrad, 2009), in addition, demonstrates how a suite of associated features vary within texts according to dimensions that represent the purpose and processing constraints inherent in text production, and offers a useful tool in interpreting variations identified in the texts of study participants.

Table 3.3 below summarises the sample of linguistic features highlighted in this chapter. While it may be impossible to capture every nuance of later linguistic development, and academic language proficiency, in a simple list of constructions, it is argued that, nevertheless, these features act as useful markers of development and provide a focus for the study.

Table 3.3: The resources of academic language

Resource of Language	Examples	Function and developmental trends in academic language knowledge
Clause level: Participants Experiential grammatical metaphor (nominalization) and abstract nouns more generally Dense nominal groups Processes Expanded verbal groups A range of process types and clause types Logical Grammatical metaphor	<i>destruction, precipitation, the claim/suggestion that...</i> Epithets, classifiers (adjectives) , relative constructions and prepositional phrases tense, modality, passives Material, behavioural, relational, existential, mental and verbal processes <i>One cause of.....was.....resulted in.....</i>	Nominalisations enable the writer to render a process, including a thought or saying, as an abstraction which can become the subject of a verb. Other abstract nouns expand such things as the resources to express logical relations (e.g. cause, reason, purpose). Nominalisations and other abstract nouns become more frequent in writing as academic language knowledge develops. Pre- and post-modification of nominal groups enables dense packing of information and explicit reference. This is important in academic writing, where the meanings are less likely to be supported by the immediate context. Dense nominal groups become more frequent in writing as academic language knowledge develops. These resources expand the complexity of experiential and interpersonal meanings expressed in the verbal group. The frequency of elaborated verbal groups increases as academic language knowledge develops. A full range of clause types enables a writer to express full range experiential meanings. With an increase of complex participants mentioned above comes an increase in the proportion of relational processes relative to material and behavioural processes. Meanings expressed through relational clauses increase to include logical relationships such as cause and effect. This provides a further resource for expressing the logical relations between propositions and thus enables further flexibility in expression.
Above the clause: Expansion Projection	<i>Although If when while</i> Prepositions + non-finite clauses: <i>without, by, despite</i> <i>...said that</i> <i>I think that...</i> <i>It suggests that....</i>	An important function of subordinate clauses is to provide circumstantial information or to elaborate on the meaning of the main clause. Subordinate clauses may be placed either before or after main clauses, and can thus provide a framework for understanding the main clause. As academic language knowledge develops, the range of logical relations and conjunctions increases. These resources enable writers to quote and report, and to discuss the meaning or significance of such things as a writer's choice of particular language in a piece of literature.
Above the sentence: Cohesive conjunctions Rhetorical knowledge	<i>However,.....</i> <i>Furthermore...</i> Knowledge of whole texts Knowledge of stereotypical clause patterns within texts	Writers can signpost the relationship between sentences and larger segments of text, thus guiding the reader. The frequency and variety of cohesive conjunctions may increase as academic language knowledge develops, though this trend may be countered by more varied expression of logical relations through logical grammatical metaphor. Content needs to be organised in a coherent fashion, meeting the culturally mediated expectations of the reader, and effectively achieving the rhetorical goals of the writer. The control of rhetorical structures wt the level of the whole text and within the text increases as academic language knowledge develops.
Interpersonal resources	Interpersonal themes e.g. <i>Possibly the most obvious symbol of slavery and suffering...</i> (Meyer,2008), modal verbs, adjectives, personal pronouns	These resources enable a writer to develop powerful and persuasive text by constructing a dialogue with their readers. As academic language knowledge develops, writers develop a more nuanced understanding of their audience and a more varied range of resources to express the interpersonal meta-function.

In the current study, the linguistic features discussed in this chapter, features that often continue to develop through adolescence and into adulthood in native speakers, and which are important components in the kind of free standing, context reduced discourse important in education, will form the focal point of the investigation. It is argued that, by looking at the way writers with ESL at different stages of development use these resources, and comparing the way these features are deployed by ESL writers to the way native speakers use them, one can begin to understand the way the meaning potential of learners with ESL develops in the context of an English-medium school. The following two chapters of the study, which constitute section 3, review research into the academic language knowledge of ESL learners and the way culture can influence second language writing. These chapters draw on the theoretical framework developed in the current section of the study.

Section 3: Literature Review

Chapter 4 The Development of Academic Language Knowledge in Students with ESL

4.1 INTRODUCTION

This chapter critically reviews research relevant to the understanding of the developing linguistic resources of learners with ESL, with special reference to those resources identified in the previous chapter as important in gaining control of academic discourse in the context of a secondary school. The chapter discusses the research base addressing the following questions: What is the difference between the academic language of learners with ESL and native speakers? What causal factors determine these differences? How does time influence the development of academic language knowledge? The chapter goes on to discuss how the current study contributes to this body of knowledge.

4.2 THE ACADEMIC LANGUAGE KNOWLEDGE OF STUDENTS WITH ESL COMPARED TO THAT OF ENGLISH MOTHER TONGUE (EMT) STUDENTS

The following review of research into the academic language knowledge of learners with ESL is, as far as is practicable, organized according to the categories identified in the preceding section on academic language knowledge and later language development. The review begins by looking at the nominal group before examining verbal groups, clause complexes, the interpersonal features of academic discourse and finally, rhetorical knowledge. These categories provide an organizing framework for this review, and later, for the study itself; however, it should be pointed out that they overlap significantly. The resources of the interpersonal meta-function, in particular, are prosodic (Martin and Rose, 2007, pp.59), running through the text and finding expression in all systems of language, including the nominal and verbal groups.

The current study focuses on the language knowledge of learners of secondary school age, at an age of 13-14 years. However, for the sake of completeness and because there is relatively little research into learners of secondary school age, this review includes research involving primary age children (e.g. Cameron and Besser, 2004; Reynolds, 2002), secondary age students (e.g. Cameron, 2003) and adults in tertiary education (e.g. Hinkel, 2002).

i. Nominal groups

Cameron and Besser (2004) found that English year 6 ESL writers tended to use shorter subjects, and more single word subjects, than English mother tongue (EMT) peers, though the differences were only statistically significant for ESL and EMT students achieving level 4 on the National Curriculum test of English. Subject nominal groups tended to be shorter than object nominal groups for both EMT and ESL students. EMT students used slightly more relative clauses than ESL writers; however, the patterns of use by the two groups regarding the placement of relative clauses in subject or object slots differed. EMT writers, in a pattern reflecting typical first language developmental trends (Diessel, 2004) used significantly more relative clauses in object slots than in subject slots. ESL learners, in contrast, showed a balance between the frequency of relative clauses in subject and object positions. Cameron and Besser (2004) suggest that this pattern may reflect usage in south Asian languages, which were the mother tongues of the majority of ESL students participating in the study.

Reynolds (2005) found that primary grade 5 regular language arts students used nominalizations more frequently than ESL students in their writing, though the feature was rarely used by either group. Close study of scripts in the same study also suggested EMT students were more likely to develop identifying clauses (Halliday and Matthiessen, 2004) in which complex nominal groups were linked together by the relating verb BE.

Hinkel (2002), in a study based on a large corpus of texts written by ESL and EMT college students, found that nominalizations, attributive adjectives (epithets and classifiers) and non-finite relative clauses were far more frequent in the texts of native speakers than non-native speakers, though in the case of nominalizations, the extent of the variation differed according to L1 group.

ii. Verbal groups

Cameron and Besser (2004) found verbal groups produced by year 6 EMT writers were, on average, slightly longer than those of ESL writers. Differences were attributed to the relative frequency of modal verbs and the variety of more complex tenses deployed by

writers. There were also differences in the patterns of modal use between ESL and EMT writers. ESL pupils achieving National Curriculum (NC) levels 3-4 made use of *should* and *shall* but did not use *may*, *must* and *will*, whereas EMT learners achieving the same levels did the opposite. Cameron (2003) similarly found that ESL learners at Key Stage 4 (years 10-11 in secondary school) used *should* more frequently than EMT writers, and other modals less frequently. Finally, and perhaps surprisingly, Cameron and Besser (2004) found that year 6 ESL learners used *would* more frequently than EMT writers.

A study of the acquisition of modal verbs (Gibbs, 1990) by Bengali children living in the UK suggested that deontic or root modals expressing such notions as obligation, permission and necessity are acquired by second language learners before epistemic modals, including the hypothetical *would*, an order of acquisition that parallels that seen in the first language acquisition of native speakers. The study also looked at the effects of age of earliest exposure to English on acquisition, finding that children who began learning English earlier, in early primary school, were more target-like in their use of modals than children who began learning later, given the same number of years of exposure. Interestingly, this finding held despite the relative cognitive complexity of epistemic modals. Primary children were more target-like in their use of modals for hypothetical and epistemic notions than were secondary children exposed to English for the same period of time. Woodward (2008) compared the modal verbs used in the writing of Early Immersion and Late Immersion Thai secondary school students in the same school as that under investigation in the current study, and found that Early Immersion students used epistemic modal verbs more frequently than Late Immersion students, with little difference in the frequency of auxiliaries expressing deontic modality.

Hinkel's (2002) data on the verbal group presents a similar though somewhat more complex picture. Certain features, notably passives and secondary tenses (e.g. tenses with perfect and continuous aspect), were deployed less frequently by all groups of non-native speakers than by native speaking writers. In contrast to the Cameron and Besser (2004) study, a similar pattern was also displayed by the "predictive" *would*. However, the mental

process *want* along with certain verbs of *phase* (Halliday and Matthiessen, 2004) that modify the meanings of a process, including *try* and *attempt* (all grouped together by Hinkel as expecting/wanting/tentative verbs, Hinkel 2002, pp. 105), were used far more frequently by non-native than by native speakers. Hinkel suggests that these verbs are “simple and very common” (Hinkel, 2002, pp. 107), which accounts for their occurrence in the repertoire of the non-native writers, though not necessarily for their frequent use in the texts analysed for the study. Of the other verbs that appear in phase constructions, Hinkel found that *seem* and *appear*, which are semantically complex and relate to the writer’s judgment of the reality of a proposition (Halliday and Matthiessen, 2004), were more frequent in the texts of native speakers than of non-native speakers, though they occurred relatively rarely in either. The pattern of variation in modal verb usage was mixed, with significant differences between language groups. Modal verbs of possibility, ability and permission were more frequent in the essays of Chinese, Japanese and Korean learners than in texts written by native speakers of English. Hinkel suggests that these verbs “express hesitation and uncertainty appropriate in classical rhetorical traditions other than Anglo-American” (Hinkel, 2002, pp. 110). In other words, the frequencies are influenced by cultural factors. Similarly, Hinkel found modal verbs of obligation and necessity (*must*, *should*, *need to*, *have to*) were more frequent in the texts of non-native speaking writers of English than in those of native speakers. Hinkel (2002, pp. 110), again, explains this finding as the outcome of cultural factors:

[I]n NNS essays that discuss family obligations and responsibilities and the role of an individual in society, Chinese, Japanese, Korean and Vietnamese learners, socialized according to the Confucian norms of familial loyalty and appropriate conduct, employ the verbs of obligation and necessity far more frequently than native speakers do in similar discourse contexts.

This tendency is therefore, according to Hinkel, mediated both by culture and the field of discourse.

Hinkel (2002, pp. 103) found secondary tenses (i.e. tenses involving perfect and progressive aspect) to be less frequent in the writing of ESL writers than EMT writers, including the present progressive. She points out an apparent discrepancy between the ease with which

the progressive aspect is acquired by second language learners, and the relative infrequency with which it was used by learners in her study, when compared to native speaking writers. This suggests that the frequency of use of particular forms may not be best explained by reference only to the relative ease or difficulty in the acquisition of the basic form-meaning relationships; rather, that learning the way forms may be deployed within discourse may be an equally important factor.

iii. **Clause complexes – expansion and projection**

Studies suggest that writers with ESL use a more restricted range of subordinators to mark conjunctive relations within sentences, and that, in some cases, they deploy conjunctions in ways that are not register appropriate, producing written texts that are more involved (in the sense used by Biber, 1988) than those written by EMT writers.

Cameron and Besser (2004) in a study of primary year 6 students in English state schools found that learners with ESL used fewer “advanced subordinators” (defined as: while, as soon as, until, after, whilst, what, before etc., Cameron and Besser, 2004) and more “basic subordinators” (defined as: that, because, if, so, when, as, Cameron and Besser, 2004) than EMT writers. A similar pattern was found in secondary school learners of ESL at Key Stage 4 (Cameron, 2003). All the learners in these two studies had been in the UK for at least 5 years.

Reynolds (2002, 2005) found that grade 5 learners of ESL in Texas, the majority of whom had Spanish as a mother tongue, used *because* more frequently than learners in regular language arts classes, in two writing tasks. The ESL writers used the feature in ways that seemed less appropriate to the rhetorical purpose of the texts they were writing. Similarly, Schleppegrell (1996), in a study of college-age learners, found that *because* was frequently deployed in the writing of ESL learners in ways that are appropriate in conversation, where *because* is often used as a discourse marker to signpost such things as the background knowledge on which an assertion is based. Such usage was, she argued, inappropriate in academic writing, where conjunctions tend to label explicit, logical links, and where logical

connections are also frequently expressed using other grammatical resources through logical metaphor (Martin and Rose, 2007).

Hinkel (2002) , in a study based on a large written corpus produced by college-age writers, found that certain subordinators appeared more frequently in the texts of non-native speakers than native speakers, whilst others displayed the opposite pattern or showed little difference between the native and non-native speaking groups. Clauses of cause were more frequent in the writing of learners with ESL than in the writing of native English speakers. Hinkel notes that cause subordinators “represent the most direct means of indicating causal relationships” (Hinkel, 2002, pp. 138) and the preponderance of cause sentence connectors may therefore reflect a lack of flexibility in the language resources of non-native speakers. Concession clauses which, as Hinkel notes, “are somewhat sophisticated due to the complexity of the notion of concession” (Hinkel, 2002, pp. 138) were, as a rule, used with less frequency by non-native speaking writers, though results varied somewhat according to nationality, and this clause type was rare in the texts of both native and non-native speakers alike.

Similar, somewhat mixed results emerged for clauses of condition and purpose. Perhaps the most significant contrast in the use of adverbial clauses by native and non-native speaking writers was in the use of non-finite clauses, which were notably more frequent in the writing of native speakers than non-native speakers. Hinkel (2002, pp. 140) suggests that this contrast may be linked to the complexity of these reduced adverb clauses. However, in the discussion of the later language development of native English speakers in the previous chapter, the data presented by Perera (1985) included such clauses in the writing of 10-year-olds. Cameron’s study of the writing of 16+ native speaking and EAL writers in English secondary schools (Cameron, 2003, discussed above) revealed that non-finite subordinate clauses were used rarely by either low-achieving native speakers or writers with EAL. A complex picture therefore emerges. Non-finite past participle clauses are characteristic of abstract discourse (Biber, 1988), such as formal, official documents (Biber, 1988, pp. 166). Such clauses may be encountered relatively rarely by both native

and non-native speakers, and though they may emerge early in the writing of some native speakers, it is likely that they are mastered relatively late following prolonged and varied exposure to literate language in a range of contexts.

Hinkel (2002) found that learners with EAL deployed a restricted range of mental and verbal processes involved in projection (referred to as private and public verbs in Hinkel, 2002) markedly more frequently than EMT writers. She suggests that their relative frequency in ESL texts relates to the relative simplicity of these constructions.

iv. Interpersonal features of academic discourse

In the review of the later language development of native speakers of English in the previous chapter, the interpersonal dimension of academic discourse was highlighted as an important component of exceptional writing in learners of upper secondary school age (Meyer, 2006) and research writing (Hyland, 1998, 2001). Interpersonal features of language are “prosodic” (Martin and Rose, 2007, pp. 59), being distributed throughout the clause through the use of resources such as affective lexis or modal verbs. Modal verbs were discussed above, with other aspects of the verbal group.

Hinkel (2002, pp. 148-153) investigated the frequency of various hedging devices used in English to strengthen or moderate a writer’s commitment to the truth of a particular proposition. Five categories of hedging device were investigated: Epistemic adverbs and adjectives (e.g. actual(ly), apparent(ly), clear(ly), According to (+ noun)); Lexical devices (e.g. in a way, kind of, maybe); Possibility (e.g. perhaps, possibly, if you know what I mean); Quality (e.g. as we all know, as the reader knows); and Hedged performative verbs (e.g. (would) like to/want to/can/may + performative verb (e.g. ask, comment, discuss, explain, mention)). In addition, Hinkel (2002, pp 156-158) examined the frequency of emphatics (certainly, completely, surely), which function as devices “for reinforcing the truth value of propositions” (Hinkel, 2002, pp156) and presupposition markers (obviously, of course), which “indicate contextual propositions that the writer takes to be factual” (Hinkel, 2002, pp 157). All the devices listed above serve an interpersonal function, and the majority

would be classified as modal adjuncts in systemic functional linguistics (Halliday and Matthiessen, 2004, pp. 125-132). The results are summarised in table 4.1 below.

Table 4.1: Patterns of usage of interpersonal adjuncts in the study of Hinkel (2002)

	Higher frequency in ESL texts	Approximately the same frequency as native speakers	Lower frequency in ESL texts
Epistemic hedges	Korean	Chinese, Japanese, Indonesian	Vietnamese, Arabic
Lexical hedges		Korean	Chinese, Japanese, Indonesian, Vietnamese, Arabic
Possibility hedges			Chinese, Japanese, Indonesian, Vietnamese, Arabic, Korean
Quality hedges	Chinese, Japanese, Indonesian, Korean	Vietnamese, Arabic	
Performative verb hedges			Chinese, Japanese, Indonesian, Vietnamese, Arabic
Emphatics	Chinese, Japanese, Indonesian, Vietnamese, Arabic		
Presupposition markers	Japanese, Korean, Arabic		

The picture that emerges is complex, with variation according to the function of the particular device and the language group of the ESL learners. The limited productive repertoire of the ESL groups seems to lead to a tendency for certain more sophisticated interpersonal adjuncts to be used more frequently by native speakers. This is seen in the patterns of usage displayed by lexical hedges, possibility hedges and performative verb hedges. Quality hedges, emphatics and presuppositional markers, on the other hand, are more frequent in the writing on ESL learners.

Two related factors seem to contribute to this contrast: Firstly, there is the tendency, revealed in the usage of emphatics, for ESL learners to rely on a limited range of items more common and appropriate in oral conversation than formal academic writing. Hinkel (2002, pp 156-157) notes that “emphatics that are lexically simple and ubiquitous in informal speech, such as *a lot*, *really*, *no way* and *surely*” offer writers a simple, though not necessarily appropriate, strategy for persuasion. Conversely, structurally and semantically complex devices to which non-native speakers may have had little exposure are used infrequently by the ESL groups when compared to native speakers. An example of this effect is seen in the frequency of performative verb hedges and possibility hedges.

Secondly, usage of certain devices appears to be strongly influenced by the norms of writing in the first language and culture. This appears to be the case with quality hedges. Hinkel (2002, pp 152) points out that, “by virtue of form, meaning and function, quality hedges approximate those found in the classical Chinese rhetorical tradition.” Thus, language groups in East Asia, strongly influenced by China, display a tendency to use these devices with greater frequency than native speakers of English within the Anglo-American rhetorical tradition.

Hyland and Milton (1997) looked at the use of devices expressing qualification and certainty in Cantonese school leavers living in Hong Kong. A corpus of 900 examination scripts written by this group was compared to 770 scripts written by British learners. Their results showed the range of devices used by the non-native speaking group to be more limited than that of native speakers. The five most frequent items accounted for 75% of all those used by the non-native speaking group. For the native-speaking group, by way of contrast, a range of 10 items was required to account for the same proportion. In a pattern similar to that of the Hinkel (2002) study, certain items were used with considerably greater frequency by native speakers than by non-native speakers, whilst others showed the opposite pattern. In the former category were *appear*, *apparent(ly)*, *perhaps* and *possible*, which were between 4 and 10 times as frequent in native speaker texts as in those of the non-native speaking group; *about* and *think*, in contrast, were over 4 times as frequent in the texts of non-native speakers than of native speakers.

A final resource for interpersonal expression, predicative adjectives, was a significant point of contrast between ESL learners and EMT writers in the study of Hinkel (2002). Such adjectives are not typically considered to be a feature of academic language, but represent an important resource in the Appraisal system (Martin and Rose, 2008, see chapter 1), and may significantly influence the emotional tone of a text. Adjectives in the predicative position were “dramatically” (Hinkel, 2002, pp. 121) more frequent in texts written by college-age ESL writers than by EMT writers, with ESL writers deploying this resource almost twice as frequently as EMT writers. Hinkel speculates that the high frequency of

predicative adjectives in ESL writing stems from the simplicity of the clauses that contain them.

v. Cohesive conjunctions and rhetorical knowledge

There is some evidence that the development of rhetorical knowledge, and the ability to develop stretches of coherent discourse in second language, presents less of a challenge to learners with ESL than knowledge of grammar at the level of the word, group and clause. Harley et al. (1990) investigated the development of language proficiency in the second language French of 178 immersion students with English as a first language studying in Canada. The study, drawing upon the construct of communicative competence proposed by Canale and Swain (1979), looked at the acquisition of three components of language knowledge, grammatical, discourse and sociolinguistic competence. The participants in the study had been immersed in French for some 6 academic years (they were “early immersion” students in grade 6). When compared to native speakers of French, the immersion group, scored significantly lower on measures of grammatical competence (morphology and syntax) and sociolinguistic competence (socially appropriate language), but were judged as being comparable to native speakers with respect to measures of discourse competence.

The study by Cameron and Besser (2004) identified some differences in the rhetorical knowledge of ESL writers when compared to the EMT group. The differences related to the extent to which writers developed components of genre and also the way writers handled pragmalinguistic features of certain components of genre. In a narrative task, EMT writers developed character, complication and resolution to a greater extent than did ESL learners, who developed setting more than EMT writers. EMT writers were also more likely to write endings rated as interesting. In addition, in a task requiring the writing of a radio advertisement, EMT writers made more frequent use of initial sentences or phrases regarded as catchy, effectively attracting the attention of the reader, than did ESL writers.

Cohesive conjunctions (conjunctive adverbs connecting *between* sentences and larger discourse units, Halliday and Hasan, 1976), another characteristic feature of academic writing and of later language development in native speakers, provide writers with a resource to label explicitly the logical relationship between sentences or longer stretches of discourse. Hinkel (2002) found that cohesive conjunctions were more frequent in the writing of non-native speakers than in that of native speakers. Again, as was argued above in relation to adverbial clauses of cause, the explanation for this apparent anomaly may be that native speakers have command of a broader range of strategies for expressing logical connections involving logical metaphor. This finding may also concur with the suggestion that rhetorical knowledge is learned more easily by second language learners, or that it can be drawn upon freely in whichever language a bilingual communicator chooses to use, and thus forms part of Cummins (2000) common, underlying proficiency.

4.3 DISCUSSION OF STUDIES OF THE ACADEMIC LANGUAGE OF ESL LEARNERS

The studies reviewed above provide a valuable insight into the ways the lexicogrammatical resources of learners with ESL may contrast with EMT peers, and indicate some of the features of academic language knowledge that may prove a challenge to learners with English as a second language. Some of this work could, however, be open to criticism relating to methodological issues. Fitzgerald (2006) highlighted a number of common methodological weaknesses in research into multilingual writing based on an extensive survey of work in the field. These include a lack of accurate reports of participant language proficiency, a lack of rigor in reporting the tools and analytical techniques used and a failure to consider the possible effects of topic or genre on outcomes. One possible criticism of the studies discussed in this chapter is that they do not, in most cases, provide information on English proficiency or control for the duration of immersion in English of the ESL subjects. In the study of Reynolds (2002, 2005) for example, the study subjects are simply classified as ESL with no detailed information supplied on length of immersion or level of proficiency in English. Similarly, the studies of Cameron (2003) and Cameron and Besser (2004) do not control for the duration of exposure to English-medium education.

Hinkel (2002) simply states that the study subjects are at an advanced level of proficiency as students in English-medium higher education. A second criticism of some of the work relates to the lack of control of the first language and culture of participants. Although Reynolds (2002, 2005), Cameron (2003) and Cameron and Besser (2004) supply some information regarding the range of linguistic backgrounds of subjects involved in their studies, the languages and cultures of subjects is not controlled in these studies. The Hinkel study (2002) is exemplary in this respect (see table 4.1), and the work of Hinkel (2002) suggests that first language and culture may have a significant influence on the lexicogrammar used by writers. A final area that might be criticized relates to the genres sampled. Reynolds (2002, 2005) and Hinkel (2002) collected samples of writing from a specific set of writing prompts and were thus able to factor in the effects of genre on lexicogrammatical frequency in their discussions. However, Cameron (2003) did not control for genre.

As a result of the above issues, it could be argued that some details of the influence of first language and culture may be conflated with developmental effects in some of the studies reviewed above (e.g. Cameron and Besser, 2004), and that, without control of duration of immersion, the developmental trajectory of constructions important in academic language will not be revealed. The current study seeks to focus more carefully on the developmental trajectory of features of academic language and the influence of culture on the way language is used in writing: The groups involved in the study are all Thai, living in Bangkok and have a well-known history as language learners in terms of their previous learning of English, proficiency on arrival in the school and duration of immersion in English-medium classrooms. In addition, writing samples are collected from a limited number of writing prompts and results for the different prompts are compared separately in order to enable the influence of genre to be factored in to the discussion.

While acknowledging these methodological issues, the results of the studies reviewed in the current chapter provide a useful point of reference for the current study. Table 4.2,

below, summarises evidence for the development of key features of academic language in second language learners (non-native speakers, NNS, as compared to native speakers NSS).

Table 4.2: Summary of studies on the academic language knowledge of learners with ESL (Ns= native speakers of English (EMT writers), NNSs=non-native speakers of English (i.e. learners with ESL)

Resource of Language	Studies involving primary and secondary age students	Studies involving tertiary age students (All Hinkel (2002) unless stated otherwise)
<p>Clause level:</p> <p>Participants</p> <p>Nominalization and abstract nouns</p> <p>Dense nominal groups</p> <p>Processes</p> <p>Elaborated verbal groups</p> <p>Logical Grammatical metaphor</p>	<p>Grade 5 (USA) NSs used nominalisations more frequently than NNSs, though they were rarely used by either (Reynolds, 2005)</p> <p>Generally, the ratio of Subject nominal length to object nominal length was higher for NSs than NNSs. However, NNSs tended to use relative clauses in subject slots as frequently as in object slots. NSs did the opposite. (Cameron and Besser, 2004)</p> <p>Primary age NSs and NNSs rarely used passives (Reynolds, 2005). Year 6 NNSs achieving NC levels 3-4 make use of <i>should</i> and <i>shall</i> and “do not use <i>may</i>, <i>must</i> and <i>will</i>”, whereas NSs achieving the same levels do the opposite. (Cameron and Besser, 2004)</p> <p>Year 6 NNSs used <i>would</i> more frequently than NSs (Cameron and Besser, 2004). NNSs of primary and upper secondary age used complex tenses less frequently than NSs. (Cameron, 2003, Cameron and Besser, 2004). Deontic modals are acquired before epistemic modals and the counterfactual <i>would</i>. (Gibbs, 1990)</p>	<p>NNSs used nominalizations less frequently than NSs. (Nationalities varied. Indonesians and Vietnamese writers used far fewer nominalisations than native speakers).</p> <p>NSs used more epithets (attributive adjectives) than NNSs. There was no significant difference between NSs and NNSs in the frequency of full relative clauses. However, NSs used significantly more participle modifiers (reduced adjective clauses in Hinkel, 2002) than NNSs.</p> <p>Passive voice was used far more frequently by NSs than NNSs from all L1 groups. Some nationalities (Korean, Chinese and Japanese) used deontic modal verbs such as <i>should</i> more frequently than NSs. Other L1 groups used them at similar rates to NSs. NNSs used secondary tenses (perfect and progressive) significantly less frequently than NSs. NSs used the “predictive <i>would</i>” (counterfactual <i>would</i>) far more frequently than NNSs. A restricted range of phase and causative verbs (e.g. <i>make</i>, <i>want</i>, <i>try</i>) were used more frequently by NNSs than NSs.</p> <p>Results mixed. Some nationalities used these causal verbs less frequently than NSs (Koreans). Other nationalities used them more frequently than NSs (Chinese and Indonesian).</p>
<p>Above the clause:</p> <p>Expansion</p> <p>Projection</p>	<p>NSs in both year 6 and year 10 used more “advanced subordinators” than NNSs. (Cameron and Besser, 2004, Cameron, 2003) Non-finite subordinate clauses were rarely used either by NNSs or low achieving NSs. (Cameron, 2003)</p> <p><i>That</i> is one of the “basic subordinators” used relatively frequently by ESL writers in year 6 (Cameron and Besser, 2004).</p>	<p>NNSs used more clauses of cause (e.g. <i>because</i>, <i>since</i>) than NSs. Concession clauses were rare in all texts, but some L1 groups (Korean, Arabic) used them more frequently than NSs. NNSs used fewer purpose clauses than NSs. Non-finite subordinate clauses were used far more frequently by NSs than by NNSs. NNSs used <i>because</i> in their writing in ways that were more typical of conversation than written, academic discourse (Schleppegrell, 1996).</p> <p>Certain mental processes (e.g. <i>think</i>) were used far more frequently by NNSs than NSs. NNSs used verbal processes more frequently than NSs.</p>
<p>Above the sentence:</p> <p>Cohesive conjunctions</p> <p>Rhetorical knowledge</p>	<p>NNSs had less secure control of the stages of genre than NSs. (Cameron and Besser, 2004)</p> <p>NNSs were almost indistinguishable from NSs on measures of discourse competence (Harley et al, 1990)</p>	<p>Cohesive conjunctions were used with greater frequency by NNSs than by NSs.</p> <p>Certain rhetorical features, such as rhetorical questions, were used more frequently by some L1 groups than they were by NSs.</p>
<p>Interpersonal resources</p>	<p>Hong Kong Chinese school leavers used a more restricted range of resources to express qualification and certainty than did NSs (Hyland and Milton, 1997)</p>	<p>NNSs used certain modal adverbs far more frequently than NSs (amplifiers such as <i>totally</i>, <i>completely</i> and <i>a lot</i>). NNSs used predicative adjectives far more frequently than NSs.</p>

4.4 THE INFLUENCE OF TIME ON THE DEVELOPMENT OF LANGUAGE KNOWLEDGE

Two interrelated questions connected to time are relevant to the current study: first of all, the time taken to develop levels of second language proficiency necessary to succeed academically; secondly, the effect of beginning immersion in a second language at different ages, either earlier or later.

The time taken to develop a level of academic language proficiency such that having English as a second language no longer impacts on achievement has been the focus of a number of studies, including several of those cited above (Cummins, 2000; Cummins, 1979; Cummins, 1981; Collier, 1987; Hakuta, Butler and Witt, 2000; MacSwan and Pray, 2005). There is a general consensus that the development of academic language knowledge to the point where the second language learner is not disadvantaged by their status as a bilingual learner takes between 3 and 9 years. Cummins (1981) presents data suggesting that at least 5 years were required. Collier (1987) found that the time required to achieve grade level norms was to some extent dependent on the age on arrival of children. The group that made most rapid progress (as discussed above), aged between 8 and 11, took between 2 and 5 years to do so. Those who arrived later, at age 12-15 years, took between 6 and 8 years. MacSwan and Pray (2005) suggest an average of 3.5 years for children on bilingual programs, with a range of between 1 and 6 years to achieve parity with native speakers. However, their definition of language proficiency was somewhat closer to Cummins' (2000) basic interpersonal communication skills. Thus, the estimate is in line with Cummins' (2000) suggestion that the language required for informal, face to face interaction can be acquired relatively quickly when compared to the language necessary for academic success. Hakuta, Butler and Witt (2000), based on data from "two California districts that are considered the most successful in teaching LEP (low English proficiency) students", suggest that basic oral proficiency takes between 3 and 5 years to acquire, whereas native-like proficiency in academic language takes between 4 and 7 years.

Whilst there is a degree of concurrence between research addressing the question concerning the time necessary to achieve native-like levels of academic language

proficiency in a second language, research relating to progress made by learners beginning immersion in a second language at different ages appears somewhat contradictory. On the one hand, there is a strong body of evidence that early exposure to a language is crucial if high levels of proficiency are to be achieved (e.g. Newport, 1990). On the other hand, research looking at the development of the language knowledge of second language learners in schools suggests that more rapid progress is made by older learners than by younger learners (e.g. Cummins, 1981, Collier, 1987).

Newport (1990) investigated the effects of early and late initial exposure in native speakers of American Sign Language and learners of English as a second language. The data for both groups supported the notion that early immersion in a language, prior to the age of 8, was particularly advantageous in enabling the acquisition of features of complex morphology, though age of first exposure had little influence on the acquisition of other aspects of competence such as word order rules. Pearson (2009) in a review of the literature relating to the influence of age on the development of second language proficiency suggested the term “childhood bilingual” for those who begin learning their second language before the age of 9, and suggested that such learners were “more likely to adopt a preference for L2 syntactic structures than were older learners” (Pearson, 2009, pp. 382). The difference seems to relate to the learning of syntax and morphology, with learners younger than 9 being more likely to achieve native-like levels of proficiency than older learners.

Apparently contradicting these findings, Cummins (1981) found that older learners in Canadian schools made consistently more rapid progress in learning English as a second language than younger learners. In this case however, the tests of proficiency tapped into academic aspects of language proficiency rather than accuracy of grammatical morphemes. Similar findings from Roessingh and Kover (2003) indicated that late arriving pupils in a Canadian high school were more successful than pupils arriving at primary age in terms of their achievement on an English high school examination focussing on the analysis of literature and personal response to it. Again, the assessment tapped into academic language proficiency.

Collier (1987) looked at the relative rate of progress of immigrant learners with ESL with different ages of arrival in Canadian schools. Measures of proficiency were tests of literate language and subject content. Collier concluded that pupils with an age range of 8-11 on arrival made more rapid progress than those with an age on arrival of 5-7 years, given the same length of residence. It was suggested that the 8-11 group arrived with basic literacy skills in their first language, which supported the development of academic English (all participants in the study were “at or close to grade level norms in academic skills in their first language”, (Collier, 1987). The group who experienced the slowest progress in terms of approaching grade level norms of achievement in language arts and other subjects were students who began English-medium schooling at an age of 12 or more. Even after 5 years of schooling, these students were well behind native speaking peers in reading, language arts and science, subjects that present significant demands in terms of language. Collier attributed the problems this older group experienced to the learning conditions of a secondary school rather than to maturation constraints on language acquisition.

The explanation for the apparent discrepancy between research indicating more successful early acquisition of features of lexicogrammar, and particularly verb morphology, and the findings of Cummins (1979, 1981, 1983) and others suggesting more rapid progress by older learners, may lie in the particular aspects of language knowledge being sampled in the research, as well as in the nature of the learning taking place and the extent to which learners rely on existing categories or establish new ones (Bialystok, 2002). It has been posited that aspects of academic language knowledge developed in a first language may be drawn upon when using a second language. Thus, learners of English as a second language, who are literate in their first language, have an advantage and make relatively rapid progress in developing academic language when compared to younger learners, or indeed learners who are not literate in their first language. The fact that older learners may rely on their existing knowledge structures rather than establishing new structures, as suggested by Bialystok (2001), could conceivably lead to advantages in the rate of learning and disadvantages in the extent to which the system of language approaches target-like norms.

4.5 DISCUSSION OF RESEARCH INTO THE INFLUENCE OF TIME

The review of research into the influence of time on the development of language knowledge suggests that academic language as it was defined in chapter 3 of the current study requires prolonged exposure if it is to be successfully mastered (e.g. Cummins, 2000; Hakuta, Butler and Witt, 2000, discussed above). However, what the studies discussed above do not reveal is the details of this process in linguistic terms. The current study seeks to add to this body of work by investigating how key features of academic language knowledge develop over time.

In the current study, the majority (four out of five) of the Early Immersion group have been educated in English for more than 8 years, the extreme end of the timescale research has suggested may be required to achieve parity with native speakers in academic language. It is therefore of interest to consider the extent to which the language knowledge of these participants approaches that of EMT peers.

A further issue worthy of consideration in relation to the current study is the age at which learners are first immersed in English, and the potential influence this may have on rates of learning and the ultimate success of learning a second language. As the review of the literature above revealed, immersion in early childhood seems important if native-like control of morphology and syntax is to be achieved (e.g. Newport, 1990). However, older learners who are literate in their first language make more rapid progress in acquiring academic English (e.g. Cummins, 1979). The current study examines the language knowledge of two Thai Immersion groups, referred to as Early Immersion and Late Immersion. The Early Immersion learners differ from their Late Immersion peers in terms of both their age of first immersion in English-medium education and the duration of their immersion. The Late Immersion group came to English-medium education with their Thai literacy already secure, which, based on the literature, may enable them to make relatively rapid progress in the learning of academic English. In the current study, the potential influence of age of first immersion cannot be disentangled from that of duration of

exposure. However, recognition of both potential factors may be important in the interpretation of results.

4.6 CONCLUSIONS

Based on this review of the literature, several conclusions present themselves. A first general conclusion is that ESL writers appear to have a less well-developed understanding of the way register features function within a particular context of culture than native speaking writers. This is seen both in younger learners (Reynolds, 2002, 2005) and in older, college age learners (Hinkel, 2002; Shlepppegrell, 1996). ESL writers did not appear to use clusters of register features expected in a particular context (Reynolds, 2002, 2005), and also tended to deploy features appropriate in informal, spoken registers within their writing (Shlepppegrell, 1996; Hinkel, 2002).

A second conclusion is that certain lexicogrammatical features of academic registers, including passive verbs, relative constructions, particularly participle modifiers, and advanced subordinate clauses, are used less frequently by ESL writers than by native speaking peers (Hinkel, 2002; Cameron and Besser, 2004). There was a general tendency for native English writers to use a wider range of resources, as reflected, for example, in the more varied use of tenses by native speakers in the studies of Hinkel (2002), Cameron (2003) and Cameron and Besser (2004). ESL learners also showed a tendency to make more frequent use of structurally and semantically simple elements, when compared to native English writers. For example, ESL learners in the Hinkel study made significantly more frequent use of certain verbs, including *want*, *like* and *try*. It is interesting to note that these verbs are also found in some of the earliest complex constructions produced by native speaking children (Diessel, 2004).

A third conclusion is that first language and culture appear to shape and interact with the developing English language knowledge of learners with ESL. In the Hinkel (2002) study, the use of quality hedges (e.g. *as the reader knows*) and root or deontic modal verbs in English writing appeared to be influenced by the first language and culture. Similarly, Cameron and Besser (2004) tentatively suggest that patterns of use of subject relative clauses might be

the result of first language influence on second language use. A fourth conclusion relates to the development of rhetorical knowledge. The study of Harley et al (1990) suggests that rhetorical knowledge, as defined in the previous chapter, may be learned more easily than aspects of language knowledge within the clause, such as verbal morphology. The difference between native and non-native speakers in their “ability to produce and understand coherent and cohesive text” (Harley et al, 1990) was far less marked than in their ability to use aspects of language knowledge within the clause, particularly inflectional morphology.

Finally, reflecting the fact that the lexicogrammatical system of learners with ESL is relatively unstable and in a state of flux (Larsen-Freeman, 2006), the language of ESL contains errors that are qualitatively different to the kind of errors found, for example, in texts written by native speakers (Cameron, 2003). Non-native speakers may produce errors in morphology and syntax, whereas the errors of native speakers are more likely to involve the use of non-standard constructions inappropriate in formal, written discourse.

Based on these conclusions, the following factors seem important in influencing the development of the language knowledge learners with ESL: i) The relative simplicity or complexity of a lexicogrammatical item – non-native speakers appear to learn simple structures more easily than complex structures, and deploy these structures relatively frequently (Hinkel, 2002; see Ellis, 2006 on relative difficulty of structures); ii) the experiences a learner has with the target language – structures that are encountered frequently by learners are more likely to be learned than those that are encountered infrequently, and lack of experience with text in a range of contexts can explain the less well-developed knowledge of the register features of a particular genre (e.g. uses of *because* in Schleppegrell, 1996); iii) the age and cognitive development of the learner – As with native speakers, cognitive development influences the learning of lexicogrammar, with certain constructions appearing later than others for this reason. For example, nominalizations were rare in the writing of the native speaking writers and absent from the writing of the ESL group in the Reynolds (2005) study; iv) the first language and culture of

the learner, and the “transfer” of language knowledge – the relatively frequent use of some lexicogrammatical structures in the English of learners with ESL can be explained by reference to aspects of a learner’s first language and culture.

Although as little as 1 to 2 years may be sufficient to achieve a level of competence sufficient for fluent interaction in situations where language is context embedded, such as playground chat, achieving native-like proficiency in academic language is a protracted affair taking as long as 8 years (Cummins, 2000). Regarding the influence of first immersion in a second language on the level of proficiency that is ultimately attained, immersion in a second language before the age of 10 appears to make the eventual attainment of native-like knowledge of the basic morphosyntactic building blocks and phonological categories of the language more likely (Pearson, 2009). However, research into the development of academic language knowledge in schools seems to suggest a clear advantage for older learners in terms of the rate at which they progress towards native-like proficiency levels (Cummins, 1979, 1981). The explanation for the apparent discrepancy between research indicating more successful early acquisition of features of lexicogrammar, and particularly verb morphology, and the findings of Cummins (1981) and others suggesting more rapid progress by older learners, may lie in the particular aspects of language knowledge being sampled in the research, as well as in the nature of the learning taking place and the extent to which learners rely on existing categories or establish new ones (Bialystok, 2002). It has been posited that aspects of academic language knowledge developed in a first language may be drawn upon when using a second language (Cummins, 2000). Thus, learners of English as a second language, who are literate in their first language, have an advantage and make relatively rapid progress in developing academic language when compared to younger learners, or indeed learners who are not literate in their first language. The fact that older learners may rely on their existing knowledge structures rather than establishing new structures, as suggested by Bialystok (2002) could conceivably lead to advantages in the rate of learning of a second language and disadvantages in the extent to which the system of language approaches target-like norms.

A complicating factor in the apparent advantage enjoyed by older learners is the environment for the acquisition of a second language provided by different grade levels in school, and the increasing level of challenge encountered by learners as they progress to higher grade levels in secondary school. As Collier (1987) points out, secondary classrooms often involve language activity in context reduced situations (Cummins, 2000). Later learners, who begin learning English in secondary schools, are faced with the task of simultaneously developing a basic foundation of English, and in addition, of acquiring the late developing structures, such as nominalizations, passives and relative constructions, which are frequent in academic texts and required if a learner is to write effectively. The learning environment they encounter makes this a particularly difficult task, and the gap between late learning students with ESL and their native speaking peers is that much greater.

4.7 IMPLICATIONS FOR THE CURRENT STUDY

The above conclusions suggest a number of generalizations about the language knowledge of learners with ESL, and how this knowledge develops. These can be summarized as follows:

1. ESL writers tend to deploy some linguistic resources more appropriate in informal spoken registers such as conversation in their academic writing. Features of more abstract, written texts, such as passive voice, nominalization and complex post-modification of subject nominal groups, which are learned late by native speakers of English, present a challenge for learners with ESL.
2. Some features that are semantically simple and frequent in ambient language, such as the verb *want*, certain phrase constructions, and predicative adjectives are used relatively frequently by ESL learners in their academic writing.
3. Those aspects of academic language knowledge enabling the construction of coherent and cohesive discourse, such as knowledge of patterns of organization in texts and the use of cohesive resources such as reference items and conjunctions,

may be learned more easily by ESL learners than lexicogrammatical constructions of the kind discussed in point (1) above.

4. First culture can affect the frequency of certain language features in second language writing.
5. Mastering academic language to the extent that having ESL is no longer a factor in academic performance is a prolonged process taking as many as 8 years, and starting immersion in a second language during the primary years is advantageous.

These general statements serve as a check list to focus the gaze of the current study. They present a guide for data collection and, to the extent that they may or may not hold for the Thai early and Late Immersion learners participating in the current study, a point of departure for a subsequent discussion of the results.

The current study can contribute to this body of knowledge in several ways. First, the current study focuses on Thai learners. Previous research has not investigated the development of academic language knowledge in Thai learners (though see work on the influence of culture in chapter 5, e.g. Indrasuta, 1988), and the current study may therefore make a valuable addition to what is already known. Secondly, the context of the current study, an English-medium international school situated in a country where English is neither a first or official language for the overwhelming majority of residents, provides an opportunity to consider how academic language knowledge develops in an environment rather different to that seen in much of the work investigating school ESL development, which has tended to be carried out in countries where English is the first language (e.g. Reynolds, 2002, 2005; Cameron, 2003; Cameron and Besser, 2004). The current study, therefore, can contribute to a better understanding of immersion English language learning in an Asian context.

Regarding the time taken to achieve native-like levels of proficiency in academic language, it is important to identify the specifics of this protracted developmental process. The current study compares the language knowledge of Early Immersion and Late Immersion Thai learners. The former group has the advantage of beginning their immersion at a young

age and, in addition, having a significantly longer period of time to develop their English language knowledge. The Late Immersion students began immersion in English with established literacy in their first language, an advantage in scaffolding the acquisition of academic literacy in English. Comparing the language knowledge of these two groups to each other and to that of native English speakers of similar age will add to understanding of the developmental trajectory of lexicogrammatical constructions important in academic language and those constructions that present the greatest challenge to ESL learners.

Chapter 5 Culture and Language Knowledge

5.1 INTRODUCTION

Research reviewed in the preceding chapter (e.g. Hinkel, 2002) suggested that the first language and culture of learners with ESL can influence the way some second language learners use English in their writing. This chapter looks in greater detail at how culture may influence the use of English as a second language in writing. The chapter begins by examining what is meant by culture in the current study before reviewing work on cultural variation and psychology. Following this, the chapter reviews research into how these variations may influence written language, and identifies implications for the current study in terms of the features that the study should focus on. Since the current study focuses on Thai writers, this review of cultural psychology and cross-cultural rhetoric focuses on East Asia.

5.2 WHAT IS CULTURE?

Culture has been studied for a variety of purposes and culture as a construct has subsequently been defined in a variety of ways (Atkinson, 2007). Atkinson (2007) argued for the importance of clarity in how culture is viewed and defined by researchers studying cultural influence on second language writing. For the purpose of the current study, the view of culture assumed is that of patterns of thought and behaviour learned by the individual as they are socialised into a speech community, and shared with other members of the group, which enable that individual to function as a member of that speech community. Triandis (1995, pp. 6) refers to the notion of *subjective culture*, defined as “shared beliefs, attitudes, norms, roles and values found among speakers of a particular language who live during the same historical period in a specified geographic region”. In the current study, culture is similarly viewed as patterns of thought and behaviour learned by, and shared between, individuals as they participate in society (see also Adams and Markus, 2004, on culture as patterns; Sheffelin and Ochs, 1986 on language socialization), and underpinned by evolved mental capacities which enable the transmission of knowledge through cultural learning (Tomasello, Kruger and Ratner, 1993). The knowledge

structures, including scripts (Schank, 1999) and language mediated concepts (Jarvis and Pavlenko, 2008), which underlie cultural activity, are referred to by Shore (1996) as cultural models (see Lantolf, 1999 for a discussion of cultural models and the influence of a first culture on a second language). Thus, in contrast to the view of Geertz (Geertz, 1973), who viewed culture as being acted out in the space between people, culture is considered as residing within the individual as knowledge structures in the mind/brain (Shore, 1996).

The current study draws heavily upon conceptions of language in systemic functional linguistics, and it could be argued that the view of culture expressed by Martin and Rose (2008, pp.17) as “systems of genre” is closer to that of Geertz. It is, however, to be noted that Martin and Rose suggest the study of genre as a way of systematically mapping cultures. This is not at variance with the idea that culture can be conceived of as knowledge shared between individuals since, for genres to function as means to get things done in a culture, knowledge of them must be shared between individuals in that culture. This view of culture in terms of cultural models seems most relevant to the current study, since it is these mental models of stereotypical text patterns and understandings of the audience that may vary from one culture to another, and may influence the writing of second language learners.

5.3 CROSS-CULTURAL AND CROSS-LINGUISTIC INFLUENCE

The way being a member of one culture and speech community may influence the use of a second language has often been referred to as cross-linguistic influence (Jarvis and Pavlenko, 2008). The focus of the current study is primarily on the influence of Thai culture, and the cultural models (Shore, 1996) that Thai learners draw upon when they communicate in English. In their comprehensive work on cross-linguistic influence, Jarvis and Pavlenko (2008) refer to discursive, pragmatic and sociolinguistic transfer (Jarvis and Pavlenko, 2008, pp. 102-110). In terms of the model of communicative competence presented in the first part of this literature review (Celce-Murcia, Dornyei and Thurell, 1995), these categories match the aspects of pragmatic competence referred to as actional or rhetorical competence and sociolinguistic competence. These are the primary

areas of interest for the current study's investigation of cultural influence. These areas of language knowledge, which involve shared understandings of the appropriate way to use language within context, are part of the cultural knowledge that a person accumulates as they grow and learn to participate a particular society. It should be pointed out, however, that it is hard to make a sharp distinction between cross-linguistic and cross-cultural influence on language knowledge and writing.

5.4 VARIATIONS IN CULTURAL PSYCHOLOGY

Evidence for systematic variation in the psychological traits of the members of different cultures has been charted by large-scale studies (Hofstede, 1980; Schwartz, 1999). Of the dimensions revealed by these studies, the distinction between more individualist (independent) and more collectivist (interdependent) societies emerges as particularly important (see also Triandis, 1993, 1995). Western societies in general and Anglophone societies in particular, emerge as highly individualistic, with the rights of the individual to the fore; Eastern societies, in contrast, tend to be more collectivist, with cultural norms stressing group harmony rather than individual freedoms.

Nisbett and his co-workers (Norenzayan and Nisbett, 2000; Nisbett et al, 2001; Nisbett, 2003; Peng and Nisbett, 1999) have investigated the influence of individualism and collectivism on habits of cognition. They suggest that more collectivist East Asians tend to be holistic thinkers who see themselves as situated in a world of complex social relationships with similarly interconnected relationships between objects and entities. More individualist Westerners, in contrast, see themselves as individuals in a world of other individual actors and are characterised as analytic thinkers oriented towards the salient actors in a field rather than the details of the surrounding context. According to Nisbett, these biases are reflected in: i) tacit theories of causality so that Easterners will have a tendency to attribute causes to contextual influences whereas Westerners are more likely to attend to central actors within a field and attribute the cause of events to characteristics of the central actor (Nisbett, 2003; Nisbett et al, 2001; Peng and Nisbett, 2000); ii) Eastern cultures are fundamentally more tolerant of contradiction than are

Westerners. If presented with an apparent contradiction and asked to resolve it, Easterners are more likely to look for a “middle way” (Nisbett, 2003, pp. 75), whereas Westerners are more likely to take a polarised position and argue for this position, undermining the other position (Nisbett, 2003, pp.167-185). iii) relative to Westerners, East Asians are less persuaded by formal logic leading to a conclusion, and more persuaded by the plausibility, typicality or even desirability of the conclusion (Nisbett, 2003, pp. 170-171; Nisbett et al, 2001).

5.5 DISCUSSION OF CULTURAL PSYCHOLOGY

The generalizations concerning the traits of large groups of people inhabiting vast regions discussed above are open to the criticism that they reduce the complexity of individual human personality and behaviour to an extent that cannot entirely be justified, implying an unrealistic level of homogeneity within groups. While acknowledging that this is a danger, the empirical basis of the findings discussed above is strong (Nisbett et al, 2001; Nisbett, 2003), and differences between groups of learners are often large:

The cognitive differences we have discussed vary in size, but it is important to note that many of them are unusually large, whether the standard is the magnitude of mean or proportion differences (often on the order of 2:1, 3:1, or higher) or effect size (often well in excess of 1.00).

But, in fact, most of the differences we have reported are not merely large. The East Asians and the Americans responded in qualitatively different ways to the same stimulus situation in study after study. (Nisbett et al, 2001)

Although a degree of caution is warranted, it nevertheless seems appropriate to draw upon this research given that the work suggests culture can exert a marked effect on some aspects of cognition, and that these aspects of cognition may influence writing.

The findings suggest that patterns of thought may differ between cultures in ways that are likely to be significant for written language. Of particular relevance to the current study, the research above suggests that approaches to persuasion and argumentation taken by Anglophone writers socialized into a more individualist culture may differ from the

approaches taken by those who have been socialized into more collectivist cultural groups (see points ii. and iii. above, from Nisbett, et al, 2001; Nisbett, 2003).

5.6 THAI CULTURE

Much of the research by social psychologists reviewed above (e.g. Nisbett, 2003; Nisbett et al, 2001) focuses on Chinese and Korean participants and compares them with Americans of European descent. The current study focuses on Thai participants, and it is obviously important to consider the extent to which Thai culture is similar to the East Asian cultures that have been the focus of more intensive research.

The Thai were included in the studies of Schwartz (1999) and Hofstede (1980, 2009 b.). Hofstede's analysis found the Thai to be high on the Power Distance, Collectivism, Uncertainty Avoidance and Feminine components of his model of cultural value dimensions. According to the Schwartz (1999) study, the Thai scored highly on the Conservatism (which Schwartz equates with Collectivism) and Hierarchy (equated with Power Distance) dimensions. The two studies are generally consistent in their findings to the extent that both found Thai participants to be collectivist and accepting of power inequality, features shared with other East Asian cultures included in the studies (see table 5.1, below). However, in contrast to Korea and China, scholars (Embree, 1950; Triandis, 1995) have also categorised Thai culture as loose. In loose cultures, there is less pressure on individuals to conform to societal norms, and greater acceptance of deviations from these norms. Thailand is situated between the major cultures of China to the east and India to the west. It is therefore argued that the Thai accept that there may be different ways of behaving in given situations (Triandis, 1995). Most collectivist cultures are tight rather than loose (Triandis, 1995), and this suggests that caution must be exercised in generalising findings of social psychology for East Asian cultures such as Japan, China and Korea.

Komin (1990) presents an inventory of Thai cultural values somewhat different to those of Hofstede and Schwartz, and which, she argues, better capture the nature of Thai society. Nevertheless, the three most important dimensions identified by the Komin study, Ego Orientation, Grateful Relationship Orientation and Smooth Interpersonal Relationship

Orientation (figure 5.1, below), are consistent with the broad traits identified by Hofstede (1980) and Schwartz (1999), highlighting as they do the importance of group harmony rather than personal agency.

Diagram removed for copyright reasons

Figure 5.1: The three most important Thai cultural values (Komin, 1990)

Table 5.1: The central characteristics of Thai (Hofstede, 1980)

High Power Distance	Societies that accept the unequal distribution of power in organizations and institutions.
High Uncertainty Avoidance	Societies that feel threatened by uncertain and ambiguous situations and so try to avoid them.
High Collectivism	Societies with a tightly-knit social framework and clear distinctions between in groups and out groups.
Femininity	Societies that value qualities such as caring for others and the quality of life rather than assertiveness and the acquisition of material things.

The core characteristics of Thai culture identified above may link to characteristics of communication in Thai (Ukosakul, 2005; Hongladarom, 2007). Specifically, the need to save face and to maintain harmony embodied in cultural values such as “smooth interpersonal relations” and “ego orientation” (Komin, 1990) encourages indirectness and the use of strategies such as disclaimers in speech acts that might be perceived as potentially face threatening (Hongladarom, 2007).

5.7 WRITTEN LANGUAGE AND CULTURE

The current study focuses on academic language, and the main concern is therefore the manner in which having Thai as a first culture may influence writing. Culture, as it has been defined for the purposes of the current study, involves intersubjectively shared knowledge, and therefore, involves shared assumptions about such matters as how a reader will expect information to be presented and the way to engage with a reader in a manner that is appropriate and effective for a given purpose. When a writer steps out of their own language and culture, there is a possibility that some of these assumptions may not hold. This review examines three areas that have been identified in the literature as ones in which cultural differences may influence the writing of learners with ESL: i) cultural influence on broad factors that shape a genre as a coherent text, including the way writers identify the purpose of a particular task, the rhetorical structure and directness of discourse; ii) cultural influence on the use of modal verbs; iii) cultural influence on the preference for logical as opposed to emotional appeals in persuasion.

i. Cultural influence on broad factors interacting with genre, rhetorical structure and the directness of discourse

In the model put forward by Martin (e.g. Martin and Rose, 2007), a genre is defined as a text consisting of specific stages and oriented towards a particular goal. As, according to SFG (e.g. Martin 1992; Martin and Rose, 2007) a genre is a social process in which language plays a part, embedded within a culture, it is to be expected that ostensibly similar genres may vary subtly between cultures. One source of such variation relates to the precise goal of the genre. Studies of narrative writing indicate subtle variation in the details of generic purpose for narrative between cultures. Indrasuta (1988) found that Thais foregrounded the role of narrative as providing direct advice on how to behave to a greater extent than Western writers, and were thus more likely to include an explicit moral in stories. The current study does not investigate narrative writing, but it is conceivable that writers from different cultures may vary in the way they identify the purpose of other genres.

A further potential source of variation relating to the basic expectations that members of a particular culture bring to either the reading or writing of a text relates to reader as opposed to writer responsibility (Hinds, 1987). According to Hinds' typology, writers from reader responsible languages such as Japanese may include ideas that are less directly relevant, from the perspective of a Western reader, to a central thesis within expository or persuasive writing. The reader is responsible for adducing the focal meanings of the text. This conception of apparent vagueness, from a Western perspective, in East Asian writing is supported by Hinkel (1997), who found speakers of Chinese, Japanese, Korean and Indonesian more likely to deploy rhetorical features such as vagueness, disclaimers and hedges (see also Hinkel, 2002, reviewed in the previous chapter). The notion that languages may vary systematically in the extent to which speakers or readers expect a more or less explicit style was also examined by Hasan (1996), who compared the "semantic styles" (Hasan, 1996, pp. 191-192) of English and Urdu. According to Hasan, Urdu speakers deploy a more implicit semantic style, in which the reference of a higher proportion of cohesive devices may not be recoverable from the cotext; successful communication must therefore rely more on the shared experience of the interlocutors. Hasan suggests the implicit semantic style of Urdu can be attributed to the culture and social fabric in which Urdu speakers are embedded: "I am suggesting that the role system for the community of Urdu speakers is considerably more determinate than it is for the middle-class English speaker" (Hasan, 1996, pp. 235). In other words, roles in Urdu society are more sharply defined and this knowledge is shared by Urdu speakers, and thus certain clauses that might be ambiguous in English are not so in Urdu, to an Urdu speaker. A similar argument might be advanced as an explanation for the reader-responsibility and apparent vagueness of the writing styles of more collectivist cultures of East Asia.

A number of studies have similarly characterized East Asian writing as indirect (Kaplan, 1966; Chao, 2008; Hinkel, 1997; Matalene, 1985). Kaplan (1966) explained the rhetorical structure of English paragraphs written by non-native-speaking writers by reference to rhetorical traditions of the cultural groups to which these writers belonged. He characterized East Asian rhetoric as indirect, in the sense that topics were addressed by

East Asian writers in a manner that seemed tangential and sometimes less than relevant to the topic to a reader from the Western tradition (See Mohan and Lo, 1995, for a critique of this work). Chao (2008) looked at the writing of Chinese speaking high school and university students in Taiwan writing both in their native language and in English. As a general rule, groups writing in Chinese showed a preference for indirectness in their opening paragraphs and in the body of their essays. That is, they did not directly state the writer's stance. When writing in English, their preferences for direct and indirect opening paragraphs were more balanced, with similar numbers of essays showing direct and indirect features.

Nisbett (e.g. Nisbett, 2003; Nisbett et al, 2001, discussed above) suggested that East Asian cultures may be more tolerant of contradiction and more likely to seek a middle way rather than becoming polarized towards a particular point of view in an argument. There is some evidence that Thai writers, at least, may favour a balanced rather than a polarized approach to argumentation, as might be expected following the work of Nisbett (2003) discussed above. In a study of the expository writing of Thai and English high-school students writing about the generation gap in their first languages, Bickner and Peyasantiwong (1988) found Thai learners tended to express the viewpoints of both adults and teenagers, whereas American writers tended to focus on the point of view of teenagers. In addition, Bickner and Peyasantiwong (1988) note that conclusions were also less frequent in Thai essays, and that when they did occur, they tended to be simple summaries of main points. American writers frequently concluded by speculating as to how the problems between teenagers and adults might be solved.

It has, in addition, been suggested that some East Asian writing demonstrates a preference for inductive organization, whereas English expository writing is characterised by a deductive pattern (e.g. Kobayashi, 1984; Kobayashi and Rinert, 1988). Inductive organization involves delaying the statement of a main idea or thesis until evidence has first been presented, and contrasts with a deductive pattern, where the main idea is stated early, followed by supporting details. However, not all studies of East Asian writing have

found strong evidence for the East Asian preference for inductive patterns of organization. Hirose (2003) compared the writing of 15 Japanese EFL students at university in Japan writing in their L1 (Japanese) and in English, finding that deductive patterns were generally preferred in both languages. Moreover, Hinds (1990) suggested that characterizing the writing of East Asia as inductive provided an incomplete picture of the true nature of rhetorical organization patterns. Using examples from Japanese, Chinese, Korean and Thai he provided evidence that, although it was true that main ideas were delayed, the patterns differed from inductively organized writing in English. Inductive writing in English involves placing specific details and examples and working towards a generalization. However, in the examples given by Hinds, the content placed before the main points did not supply direct evidence to support these particular points. Hinds characterized the pattern as the delayed introduction of the writer's main purpose. This tendency for informational indirectness in Thai writing is further supported by Hongladarom (2007), who refers to an example from a letter to a newspaper, where the writer initially presents information not related to the main purpose of the letter, but intended rather to build a rapport with the reader. According to Hongladarom, Thai culture "stresses rapport, long-term relationship, consideration for others and avoidance of conflict and confrontation" (Hongladarom, 2007, pp.31), factors which lead to a tendency towards indirectness, particularly in potentially face-threatening acts such as the offering of criticism.

Indirect patterns of rhetorical organization described above are associated with differences in lexicogrammatical choices in the English writing of East Asians, particularly in features with an interpersonal function. Indirectness may be realized both through the presentation of content, as discussed above, but also through the use of linguistic constructions and rhetorical strategies that moderate the level of commitment of a writer to a proposition or thesis, and the extent to which a writer expects the reader to agree with their position (Hinkel, 1997; Matelene, 1985; Chao, 2008). Hinkel (1997) identified a number of rhetorical features related to vagueness and indirectness used with greater frequency in the writing of East Asian writers from Korea, Japan, China and Indonesia than in the writing of native English speakers. These included the use of rhetorical questions, disclaimers and various

types of hedging strategy involving modal verbs and adverbs. Although the notion that Chinese writing is characteristically indirect has been questioned (Liu, 1996), there seems evidence that lexicogrammatical forms, and certain rhetorical features deployed by Chinese writers can, at the very least, give an impression of indirectness to some native English readers (Hinkel, 1997).

Although there is little published work on lexicogrammatical indirectness in Thai writing, the concept of preserving face and avoiding the direct criticism of another has been identified as an important characteristic of Thai oral language (Ukosakul, 2005; Hongladarom, 2007). Hongladarom (2007) notes the use of disclaimers in Thai as a strategy to preserve face in the event of criticism. This is in keeping with the cultural values identified by Komin (1990) discussed above and suggests that lexicogrammatically realized indirectness may be a feature of Thai writing too.

Though the idea is not without its critics (e.g. Mohan and Lo, 1985), the evidence that there are cultural differences in the features of certain genres appears quite compelling. Stated briefly, East Asian cultures, including Thailand, tend to be more collectivist than English-speaking countries. Consequently, these cultures may prioritize social harmony and be more guarded in presenting opinions and attitudes that may potentially lead to conflict, and may also assume more shared knowledge than members of more individualist cultures. They may, therefore, write from a reader-responsible stance, leaving the sense of a text more open to interpretation by the reader, and produce texts that appear, to a native speaker of English, vague and indirect. They may also be more likely to examine both sides of an argument rather than taking a particular position.

ii. Cultural influence on the use of modal verbs

As one of the key resources of the Appraisal system (see chapter 2), modal verbs serve an important interpersonal function, encoding both attitudes of a writer to the content of a text and the writer's orientation towards the reader. Three areas of modality in general, and modal verbs in particular, have been identified as potentially open to cross-cultural

influence: modal verbs with an epistemic function, modal verbs with a deontic function and the use of *would* to express propositions that are seen as unreal.

Modal verbs with an epistemic function

Indirectness has been posited as a characteristic of East Asian writing, and modal verbs used with an epistemic function can serve to hedge propositions in expository text. Hinkel (2002) suggested that, in college-age writers, Chinese, Korean and Japanese writers made more frequent use of modal verbs with an epistemic function than did native speaking English writers. However, the research reviewed in the previous chapter of the study (Woodward, 2008; Cameron and Besser, 2004; Gibbs, 1990) suggested that epistemic modality can present a challenge to learners of ESL and that epistemic modal usage may be controlled as much by developmental factors as cultural.

Modal verbs with a deontic function

Deontic modality involves the expression of notions such as obligation and necessity. In a study of the L2 English writing of Chinese students taking the IELTS test (Mayor, 2006), the L2 English writing of Chinese test takers was compared to that of Greek writers. The writing of the Chinese participants had what Mayor referred to as a distinctive “hortatory” tone, which manifested itself through a significantly more frequent use of direct, personal persuasive appeals. Linguistically, this involved the frequent use of imperatives and first and second person pronouns, and of deontic modal verbs such as *should*. Once again, one possible explanation for this might be variation in the way cultures understand the appropriate way of framing persuasion. This interpretation is supported by another study by Hinkel (2008), which examined the use of modal verbs in the L1 and L2 writing of Chinese, Japanese and Korean university students compared to the use of these features by L1 English writers. This study included a total of 718 essays written on five writing prompts. It was found that In L2 writing, possibility and ability modals were less topic dependent than deontic modals of obligation and necessity in the English essays of Korean, Chinese and Japanese participants. Topics that drew upon personal experience led to greater differences in modal use between participants than topics which did not. It was

suggested that these variations in modal verbs were the result of varying cultural values. “Post-Confucian” societies such as Japan, China and Korea, acknowledge a strict social hierarchy in their writing, which is reflected in use of modals. People in these societies may be more acutely aware of their responsibilities and obligations in certain situations, such as within the extended family, and foreground these obligations in topics that relate to the family. Thai essays in the study by Bickner and Peyasantiwong (1988) also frequently deployed the deontic modal *kuan* (should) in a similar manner to define the appropriate behaviour of teenagers, perhaps for similar reasons.

The counterfactual *would*

The use of counterfactuals in Chinese writing has been the subject of a degree of controversy (e.g. Pinker, 1994; Au, 1984). Debate regarded whether the apparent lack of counterfactual forms in Chinese resulted in a tendency for Chinese subjects to have difficulty comprehending counterfactual situations in text, implying a difficulty in engaging in counterfactual reasoning, with both Au and Pinker concluding that the evidence that Chinese had difficulties with counterfactuals was inconclusive. Evidence relating to Thai use of counterfactuals suggests that Thai writers writing in their own language may be less likely to engage in hypothetical reasoning than native English speakers of English. Bickner and Peysantiwong (1988), in a study of the expository writing of Thai and American high school students, found that American English writers deployed the counterfactual *would* (the predictive *would*, in Hinkel 2002) within their conclusions to imagine the outcomes of recommendations, something that Thai writers never did. They suggested that, since Thai does not have the kind of counterfactual verbal group encodings used in English, Thai native speakers may not engage in speculation involving imaginary outcomes of the kind that was characteristic of the American-English writers’ essays. Hinkel (2002) found that ESL writers in tertiary education rarely used *would*, when compared to native English writers. Woodward (2008) however, in a study of the English writing of Thai learners at the same school as the current study, found that Early Immersion Thai writers writing in English did deploy *would* for imaginary situations on some occasions. It is possible that the absence of counterfactual reasoning in the Thai essays examined by Bickner and Peysantiwong

(1988) reflects variations in generic structure between the two cultures as much as differences in the linguistic means for the expression of counterfactuals. In the case of the Thai example, the English counterfactuals described by Bickner and Peyasantiwong (1988) in the English essays fulfilled a specific pragmatic purpose: to consider how unsatisfactory states of affairs could be rectified, a move that was common within the conclusions of the English essays. As noted above, Thai learners did not conclude essays in this way but tended to simply summarise the arguments on either side of the debate.

iii. Preference for logical or emotional persuasive appeals

The preference for rules of logic in persuasion (Nisbett, 2003) displayed by people of Western tradition has implications for the kind of evidence that writers may expect readers to find persuasive. According to Nisbett (2003) members of more individualist, Western cultures are more likely to use formal logic in everyday situations, whereas members of more interdependent societies may be more swayed by the desirability of an outcome than by deductive reasoning. There is some evidence in the literature that members of more interdependent societies deploy emotional appeals relatively more frequently than Western writers. Zhu (2001) found that English business letters were characterised by predominantly logical appeals, whereas Chinese business letters used a combination of logical and emotional appeals. Similarly, Chakorn (2008), in a study of annual business reports in English by Thai executives, found that writers deployed both logical appeals and emotional appeals. In a study of Chinese business letters making requests, Kong (1998) used rhetorical structure theory to investigate the internal structure of letters by Chinese (in Mandarin and English) and native English writers. He found systematic differences between the two groups, with Chinese writers deploying more interpersonal rhetorical relations and English writers more ideational relations.

5.8 DISCUSSION OF RESEARCH INTO WRITTEN LANGUAGE AND CULTURE

Research into cross-cultural influence on writing is not without its critics. Mohan and Lo (1985), for example, suggest that patterns of written discourse in Chinese and English are in fact similar and that problems identified with the English writing of Chinese learners

could be better accounted for by appealing to developmental factors. Liu (1996) questions the broad nature of generalizations about Chinese rhetoric, suggesting that researchers into the cross-cultural influence of rhetorical patterns were in danger of drawing major conclusions about the writing of whole cultures based on relatively small samples of fairly unrepresentative writing. Similarly, Kirkpatrick (1997) questions whether traditional rhetorical patterns in Chinese exert influence on modern Chinese expository writing, and therefore, Chinese writing in English. Moreover, Hirose (2003, 2006) has drawn attention to the complex and dynamic relationship between L1 and L2 writing, and the dynamic nature of rhetorical knowledge, often leading to bidirectional transfer (Jarvis and Pavlenko, 2008).

As with research into cultural psychology discussed earlier in the current chapter, caution is clearly warranted when invoking a cultural explanation for the features of second language writing. There is, nevertheless, a convincing body of work suggesting that culture influences rhetorical and lexicogrammatical patterns, and that writers may transfer these patterns when communicating in a second language. The current study seeks to understand the English writing of Thai learners, and given the research reviewed in the current chapter it seems appropriate to consider culture as a potential factor.

5.9 CONCLUSION AND IMPLICATIONS

Following findings in the literature from contrastive rhetoric and social psychology, three areas of particular interest to the present study present themselves, summarized in the table below (table 5.2).

Table 5.2: Areas of focus for the investigation of cultural influence

Feature	Patterns noted in the literature on cross-cultural writing
i. Patterns in the rhetorical structure of text, and directness vs indirectness in stating attitudes	<p>East Asian writing may be more inductive, delay the introduction of the writer's purpose, be reader-responsible and be less likely to present an argument from a single perspective and more likely to examine multiple perspectives.</p> <p>East Asian writing may be more indirect, both in terms of presenting the writer's opinions, and in the lexicogramamtical resources deployed to distance the writer from attitudes expressed in text.</p>
ii. Modal verbs: The use of the counterfactual <i>would</i> ; The frequency of modal verbs with a deontic function	<p>Thai writing makes less frequent use of the counterfactual <i>would</i> than English mother tongue writing.</p> <p>East Asian writing, including that of Thais, has displayed a tendency to make relatively frequent (compared to writers from Western cultures) use of modal verbs with a deontic function when writing on topics involving the clearly defined roles and responsibilities of members of society.</p>
iii. Emotional appeals vs ideational evidence	<p>East Asian writers, including Thais, have displayed a tendency to prefer emotional appeals in persuasive discourse and interpersonal moves in reports whereas Western writers writing in English have a tendency to prefer logical appeals and ideational moves.</p>

There is a considerable degree of concurrence between the findings of research by cultural psychologists (e.g. Komin,1990; Hofstede, 1980; Nisbett et al, 2001) and the empirical findings of research into cross-cultural writing. For example, Thai culture has been characterized by psychologists as collectivist, focusing on within-group harmony and East Asians have been characterized as holistic thinkers, focusing on contexts and relationships rather than central actors. Similarly, East Asian writing is characterized as more indirect, less polarized towards a single viewpoint in argumentation, and more likely to focus on relationships and mental states as opposed to actions in narrative writing. These parallels suggest that the factors underlying differences in cross-cultural communication may go beyond simple differences in rhetorical conventions. Differences in habits of cognition are

likely to influence many of the choices writers are required to make in constructing a text, and therefore could play a role in shaping the written language of learners with English as a second language, particularly those who are embedded in their own society and culture when not attending classes.

The factors identified above serve to focus the current study with respect to the investigation of cultural influence, offering a framework for discussing the results on the investigation of the rhetorical structure and lexicogrammatical features of the Thai participants of the current study.

Section 4: Methodology

Chapter 6 - Methodology

6.1 INTRODUCTION

The current study is exploratory rather than testing any specific hypotheses. It investigates the writing of Thai learners of a particular age group and educational stage (end of year 9 in the British system, the end of Keystage 3) in order to identify the characteristics of their written language, and aims to interpret these characteristics in terms of cultural and developmental factors, and ultimately to make recommendations regarding the assessment and language education of Thai learners involved in English language immersion education. This chapter presents, and seeks to justify, the basic methodological approach that was adopted in the study. Ethical questions related to the study are also addressed.

6.2 GENERAL QUESTIONS AND METHODOLOGY

The two general, or “interpretive”, questions under investigation are as follows:

The developmental question

1. How does the academic language knowledge of Thai learners in an English-medium international school develop over time?

The cultural question

2. To what extent and in what ways does Thai culture influence the writing of Thai students in English-medium education in Thailand?

Approaches to research in linguistics and the social sciences have often been characterized as broadly positivist or anti-positivist in outlook (Cohen, Manion and Morrison, 2011). It is argued that the two approaches are based on differing world views concerning the nature of reality (ontology) and how the truth about it may be revealed (epistemology) (Cohen, Manion and Morrison, 2011). On the one hand, positivists seek an objective reality as outside observers of natural phenomena. Anti-positivists, on the other hand, believe reality to be subjective and only to be understood from the standpoint of those involved.

Research within the paradigm of positivism is often hypothesis driven and quantitative rather than qualitative, leading to an experimental or quasi-experimental approach. Anti-positivist research, in contrast, tends to be qualitative, leading to approaches such as the case study (Cohen, Manion and Morrison, 2011). In second language acquisition and applied linguistic research this dichotomy is often characterized as a contrast between qualitative and quantitative approaches (Larsen-Freeman and Long 1991; Dornyei, 2007). However, as Larsen-Freeman and Long (1991) point out, it is probably more realistic to view the approaches available to language researchers as occupying a cline from the more qualitatively oriented to the more purely quantitative. At the qualitative end of the cline, Larsen-Freeman and Long (1991) place introspective techniques such as learner reports on their experiences. At the quantitative end of the spectrum are experimental techniques.

The current study cannot be said to be staunchly positivist or anti-positivist. Even a positivist, natural-science approach to linguistic research must generate hypotheses before testing them, and the research cycle therefore must begin with close observation and description of phenomena. The approach adopted in this study is described by Larsen-Freeman and Long (1991) as focused description. The study explores the relationship between academic language development, Thai culture and duration of English immersion in a particular context, an English-medium international school. To achieve this objective, the study samples and analyses the writing of the groups of participants described below. Quantitative methods are drawn upon in order to identify the frequency of selected features of lexicogrammar in texts, and to provide a statistical measure of the difference between group means (see below). A descriptive approach is used to explore how writers have used lexicogrammar in their writing, and to examine the rhetorical structures of texts.

The study is particularly concerned with the development and use of academic language. In chapter 3, Cummins' construct of academic language knowledge (Cummins, 2000) was discussed. It was suggested that, although the notion of academic language and basic, interpersonal communication skills (Cummins, 2000) as a dichotomy was open to criticism as something of an oversimplification, an argument could be made that the dichotomy

highlights the context-reduced (Cummins, 2000, discussed in chapter 3) nature of language use in academic contexts: The constraints of language production and the cognitively challenging fields involved in academic contexts require access to a particular set of linguistic resources (see chapter 3), which provide a focus for the study. Chapter 2 touched upon research methodology with a discussion of approaches that have been employed in the investigation of language knowledge and writing. It was suggested that sampling the writing of participants and analyzing the linguistic features of that sample was an appropriate way to investigate the academic language knowledge of participants, given that academic writing provides a sample of the kind of discourse likely to require the range of linguistic resources implicated in academic language proficiency (e.g. Crowhurst 1980; Nippold, Ward-Lonergan and Fanning, 2005; Christie and Derewianka, 2008).

A further methodological question relates to the approach to the selection of participants in order to address the research questions. Studies investigating language development follow two general designs (Larsen-Freeman and Long, 1991, pp.11.): i) longitudinal, where a student or group of students is followed over a period of time, with language samples taken at intervals in order to track development; ii) cross-sectional, where a population of students showing in-group variation with respect to time of exposure to English is sampled at a single point, and the language of students within the group compared. Longitudinal studies tracking the changes in the language of a single participant or a small group of participants over time are a powerful approach for addressing questions relating to language development; however, for practical reasons a longitudinal methodology was not considered for the current study as it was not feasible to track groups of participants over a number of years. A cross-sectional approach, though it introduces more potential extraneous sources of variation, provides a practical approach for addressing the research questions. Jarvis and Pavlenko (2008) describe the study design adopted for the current study as pseudolongitudinal (Jarvis and Pavlenko, 2008, pp 36-41), since it samples groups of learners at two distinct stages of development, referred to in the current study as Early Immersion and Late Immersion. By looking at these two groups, differing significantly in the duration of their immersion in English, it is argued that the developmental trajectory of

key features of academic language knowledge may be identified. The study of Woodward (2008), a smaller-scale study investigating similar Early and Late Immersion Thai groups, was able to identify some general developmental trends. The current study aims to add detail to these preliminary findings.

As well as these developmental issues, the current study is also concerned with the influence of Thai culture on the English writing of Thai learners. Ideally, in order to answer questions of cross-linguistic or cross-cultural influence, three lines of evidence are called for (Jarvis and Pavlenko, 2008, pp. 35): *intragroup homogeneity*: evidence that the feature identified as being the result of cultural or cross-linguistic influence is not isolated to a single individual; *intergroup heterogeneity*: evidence that the feature that distinguishes learners from EMT writers is not simply a characteristic of all language learners; *crosslinguistic performance congruity*: evidence that links the feature seen in the English writing of learners to the first culture or language of the learner. By comparing groups of learners, the current study seeks to address the question of intragroup homogeneity. In order to address the question of crosslinguistic performance congruity, the study includes groups of EMT writers and Thai writers writing in Thai, whose performance can be compared to the Early and Late Immersion groups. The current study does not include a group of second language learners from another language group other than Thai, and cannot present direct evidence addressing the question of intergroup heterogeneity. Nevertheless, it is argued that the study can address the question of cross-cultural influence with reasonable confidence despite this shortcoming by drawing upon the literature and what it suggests about Thai culture and the influence of East Asian culture in general on English writing. Indeed, many studies in the contrastive rhetoric research paradigm have adopted a similar approach (e.g. Hirose, 2006; Idrasuta, 1988; Kaplan, 1966; Bickner and Peyasantiwong, 1988 and many others).

6.3 PARTICIPANT GROUPS AND SPECIFIC (CONCRETE) RESEARCH QUESTIONS

The study participants constitute 4 groups in total (see table 6.1, below). However, there are two central groups around which the rest of the study is organized. These two central

groups are comprised of Thai secondary school students learning English as a second language in an English-medium international school in Bangkok, Thailand. One of these groups, the Early Immersion Thai group, began studying in the international school early in the primary years (mostly in year 2 or earlier, see below for further details). The second central group, the Late Immersion Thai group, is made up of Thai learners who joined the international school from a Thai school during year 6 or later. The two groups therefore differ significantly in only two key dimensions, the duration that they have been studying in an English-medium school and their respective ages of initial immersion in English. The other two groups, an English mother tongue group and a Thai group writing in their native language, provide points of comparison for the two central groups, allowing conclusions to be drawn regarding the cultural and developmental factors underlying the knowledge of English that they have developed.

Table 6.1: The groups and variables involved in the current study

	ENGLISH MOTHER TONGUE GROUP	THAI IMMERSION GROUPS		THAI GROUP WRITING IN THAI
		THAI EARLY IMMERSION GROUP	THAI LATE IMMERSION GROUP	
DURATION OF EXPOSURE	English learned at home in pre-school years followed by education through L1 English	6 or more years in an English-medium school	Approximately 3 years in an English-medium school.	Thai learned at home in pre-school years followed by education through L1 Thai
CULTURE	English language and culture at home.	Thai language and culture outside the classroom.	Thai language and culture outside the classroom	Thai language and culture in and outside the classroom.
LANGUAGE SAMPLED	English writing – Native English writers using their L1	English writing – Thai writers using their L2	English writing – Thai writers using their L2	Thai writing – Thai writers using their L1

The size of the groups of Early and Late Immersion subjects, the central focus of the study, was predetermined by the small size of the school in which the study was conducted. There were only five students that fulfilled the criteria set for the Early Immersion group (see section 6.4 below), and a potential group of six for the Late Immersion group. Therefore, a group size of five was chosen for all groups in order to keep group sizes constant and to keep the volume of data to a manageable size. The fact that the study draws upon a

relatively small number of participants clearly has implications for the generalisability of the findings, and calls for circumspection in the application of statistical techniques, since a single outlier may exert a marked influence on group means. The sample size influenced the approach to the data adopted in the current study in that a combination of quantitative and descriptive techniques have been drawn upon in an effort to present a detailed picture of the writing and language knowledge of the Early and Late Immersion Thai groups, and how it compares to that of the other groups of subjects in the study.

In the current study, the objective is to describe variations in the lexicogrammar and rhetorical structures used by Thai learners of ESL with quite distinct educational histories, Early and Late Immersion, and to compare the English language knowledge of these two groups to that of an EMT group. As discussed above, it is argued that, when considering groups rather than individuals, sources of variation in the writing between the two central Thai Immersion groups, and between these groups and the EMT group, may be broadly attributed to a combination of developmental factors and cultural factors. The dependent variable of the study is language knowledge (and more specifically, academic language knowledge) and the independent variables are time (the duration of exposure to English in a second language environment) and first language and culture. It is clearly something of an over-simplification to refer to such a complex web of causality as culture as a variable. To be precise, what is kept constant is the overall pattern of external influences shaping subjective culture (Triandis, 1995) with its beliefs, attitudes, norms, roles and values. The Thai immersion groups in the study are immersed in Thai language and culture outside the classroom. Their habits of thought are likely to reflect those of the home culture. The Thai mother tongue group writing in Thai (TWT) provide a reference point from which to view the variations between the two immersion groups and the EMT group. Since the TWT group shares the subjective culture of the Thai immersion groups writing in English, these groups may draw upon similar cultural models (Shore, 1996, see chapter 5) when they write. Patterns in the lexicogrammar and rhetoric of the Thai immersion groups writing in English, which deviate from those of the EMT group but are similar to those seen in the TWT group, may therefore be interpreted as the result of the influence of Thai culture.

The current study is, therefore, basically an expanded cross-sectional or, more accurately, pseudo-longitudinal (Jarvis and Pavlenko, 2008) in nature, as discussed above. All participants are drawn from the same educational level. The matrix above (table 6.1) summarises groups and key variables in the study.

In order to address the two general research questions stated above, the following more specific, concrete questions relating to these groups of learners present themselves:

1. How is the language knowledge of Early Immersion Thai learners different to that of Late Immersion Thai learners?
2. How is the language knowledge of Thai Immersion learners different to that of English mother tongue writers of similar age?
3. Which anomalous features of Thai Immersion writing (when compared to EMT writing) parallel the features of Thai students of similar age completing the same writing tasks in Thai?

6.4 DETAILS OF PARTICIPANT GROUPS AND THEIR SCHOOLS

Early and Late Immersion Thai groups

The two Thai immersion groups attended Saint John's International School (SJIS), a small English-medium international school in Bangkok, Thailand. The year group from which these two groups were drawn comprised some 15 students in total, all of whom were bilingual in English and Thai. The groups were selected using the following criteria: All students were Thai in terms of both nationality and home language and culture, and had lived in Thailand their whole lives. With one exception, the Early Immersion students had joined SJIS in year 1 or earlier. The single exception joined the school from Thai medium schools in year 3. The Late Immersion Group had joined in term 3 of year 6 having been

educated in Thai-medium schools prior to that. Tables 6.2 and 6.3, below, present background information on the makeup of these two groups.

The school teaches all subjects, with the exception of Thai language, through the medium of English and follows the template provided by the National Curriculum of England and Wales (QCA, 2010). The National Curriculum of England and Wales divides schooling into phases known as Keystages. Keystages 1 and 2 span the primary years, from year 1 to year 6. Keystages 3, 4 and 5 the secondary years from year 7 to year 13. The upper secondary Keystages, 4 and 5, are the years when students sit external examinations, the IGCSE's (the international version of the General Certificate of Secondary Education) in year 11, and subsequently, the pre-university A' Level examinations in year 13. Almost all secondary specialist subject teachers and primary classroom teachers were trained in the UK and were experienced in delivering the National Curriculum. Thus the educational culture in which the focus groups were immersed had a pronounced English flavour, with teachers, curriculum and teaching materials strongly influenced by the English education system.

The current study focuses on students at the end of year 9, the final year of Keystage 3 and thus the year preceding the beginning of IGCSE examination courses. This is a critical time for students as in the years that follow they will be challenged by examination courses preparing them for internationally recognized and externally moderated exams.

The Early and Late Immersion Groups

Table 6.2: The Late Immersion Group

Designation	Gender	Year Group	Total time spent in SJIS	Score on ESL Test (end of year 6)	Level of proficiency on enrolment in SJIS
LI_PK	F	9	3 years	12/50	Elementary
LI_EN	M	9	3 years	X	Elementary
LI_TW	F	9	3 years	11/50	Elementary
LI_PG	F	9	3 years	18/50	Elementary
LI_YK	M	9	3 years	24/50	Elementary

Table 6.3: The Early Immersion Group

Designation	Gender	Year Group	Total time spent in SJIS	Score on ESL Test (end of year 6)	Level of proficiency on enrolment in SJIS
EI_VN	M	9	11	25/50	New to English
EI_PN	M	9	10	45/50	New to English
EI_EN	F	9	6	34/50	Beginner
EI_KN	F	9	11	42/50	New to English
EI_PR	M	9	10	46/50	New to English

(Note: See Appendix ii. For a copy of the grammar test used)

The baseline level of English proficiency, when these groups of students began English-medium education, is of some importance in providing a reference point from which their progress in academic language can be examined. The Early Immersion students, with the exception of EI_EN, who arrived in the school somewhat later than the others, were all new to English when they began formal schooling. The Late Immersion students had all studied English as a foreign language in Thai primary schools before entering the international school, but were at a beginner to elementary level of proficiency, with only a very rudimentary knowledge of English grammatical patterns, as illustrated by their scores on the ESL test presented in table 6.2 above (see Appendix ii. for a copy of the test). Figure 6.1, below, presents a text written as part of the language assessment taken by these students at the end of year 6. These texts were written immediately after students completed the grammar tests, the scores of which are presented in tables 6.1 and 6.2. The writing task required students to write a letter of introduction to a pen friend. Phrases copied from the task prompt are underlined.

Dear Steve,

I have your family in Bangkok, and want it is like to live there. Tomorrow, I go to London. Your hobbies and interests. At London have any questions you want answered about life in London. I and family go to London. The people she is the preaty and tall. I go at London. I see what new. At I have not see. I have day to go to Bangkok. The people she is a preaty, too. At Bangkok they is small and thin. I go to the Bangkok.

Figure 6.1: Text written by LI_PK at the end of year 6 (approximately 3 years prior to the current study).

Sentence patterns in this text are extremely simple, with no real evidence of control of the tense system and no complex sentences. Nominal groups (including predicative adjectives)

are expanded by the conjunction *and*, but otherwise consist of a single word, or a head noun preceded by the definite article.

Figure 6.2, below, was written by the slightly more proficient LI_PG.

Dear Steve,
Hello Steve, my name is XXXX. How long you lived in London. How many people in your family lived with you. What are you doing in London, study or work? If you work, what name of your work. I'm in Bangkok since I'm born. What are your bobbies and interests? I'm never go to London what I'm need to bring? What weather in London. I think cool sure because in London have many shows. In London have a Thai restaurant yet. What you like to live in London. What country you want to go? How many seasons? In London. In my family have one brother, mother, father and me. I'm born in Thailand and I lived in Thailand 12 years. Did you have a best friend in London. What seasons you like in London? Why? And the last question is you like London yet and
"good luck"
"Good luck"
From XXXX

Figure 6.2: Text written by LI_PG at the end of year 6 (approximately 3 years prior to the current study).

This text communicates a little more effectively than the first, but constructions remain simple. In this case, a few subordinate clauses are used with *since*, *because* and *if* as subordinating conjunctions. One clause of projection is used following the mental process *think*, but without control of form. Once again, control of tenses appears to be lacking, though present progressive tense is formed accurately on one occasion.

Overall, on entry to the international school approximately 3 years prior to the current study, the Late Immersion students can be said to have had no better than elementary English proficiency characterized a predominance of simple sentences, simple nominal groups without pre or post modification, a limited range of subordinators, if any, and very limited interpersonal resources.

During the current study, 3 texts (one from each of the writing prompts described below) were collected from each participant in both the Early and Late Immersion groups, a total of 15 texts from each group.

The English Mother Tongue Group

Since the school from which the Thai focus groups were drawn did not have any English mother tongue students in its year 9 cohort, the English mother tongue (EMT) group was drawn from another Bangkok international school, Bangkok Patana School. Like SJIS, Bangkok Patana follows the National Curriculum of England and Wales. Like the Thai focus groups from SJIS, students formed part of a year 9 cohort. EMT group texts were written by students who spoke English at home, and whose parents were from Anglophone countries. A total of 5 texts for each writing prompt (15 texts in all) were chosen at random from the sample of EMT texts. In the presentation of results, texts written by the EMT group are designated NE_1 (Native English) to NE_5 for responses to each task. It should be noted however, in contrast to the situation with the Thai immersion groups, that NE_1 on the Perfect Teacher task is not the same participant as NE_1 on the other two tasks. All 15 texts collected for the EMG group were written by different participants.

The Thai Mother Tongue Group Writing in Thai

One group, which will be referred to as the Thai mother tongue group writing in Thai (TWT), were first language Thai speakers who wrote in their mother tongue. This group were drawn from a private Thai secondary school Saint John's Thai School, which is part of the same group of schools as SJIS. A total of 5 texts from each writing prompt were selected from a larger batch of texts. For reasons discussed later, many of the texts written by the TMT group were extremely short. The longest texts were chosen for analysis, since it was important to sample a stretch of discourse that provided evidence of both the lexicogrammatical choices made by writers and the rhetorical structures deployed by them. As with the EMT group, all TWT texts were written by different participants.

6.5 POTENTIAL SOURCES OF BETWEEN-GROUP VARIATION IN THE DATA

The table below (table 6.4) compares these groups with respect to key factors that may influence their language knowledge (see chapter 4; also de Bot, Lowrie and Verspoor, 2005).

Table 6.4: Developmental and cultural factors potentially influencing language knowledge

Developmental factors (Including individual factors)

	Late Immersion Thai	Early Immersion Thai	EMT
The characteristics of a particular English language item	This factor needs to be considered as a possible alternative explanation to cultural influence in determining the characteristics of language knowledge. Some constructions may be frequent in Thai learner writing because they are learned with relative ease.		
Age of learners at the time of the study	All learners, including the Thai mother tongue group, were at the same stage in their education, and approximately the same age (between 13 and 15)		
Age that the learner first became exposed to English as a second language	10-11 years old (but learnt English as a foreign language at their Thai school before enrolling in an English-medium international school)	4-8 years old	From birth
Length of time learners have spent learning English in an immersion setting	3 years	6-12 years	14 years (but at least 9 years in school)
The frequency that an item or construction is encountered as a result of the communicative situations learners encounter.	English largely encountered in lessons at school.		Normal learning adolescents with socioeconomically advantaged parents.
Literacy skills in their first language	All participants read and write their first language. Thai language is a part of the SJIS curriculum.		Literate
Aptitude and intelligence	These factors are likely to account for some within-group variation. It is assumed that that they will not account for variation between groups.		
Motivation and attitude towards English			

Cultural factors

	Late Immersion Thai	Early Immersion Thai	EMT	Thai Mother Tongue
First language and culture of the learners	Thai (3 years in English-medium education)	Thai (6-12 years in English-medium education)	English (in the home and the classroom)	Thai (in the home and the classroom)

A potential source of within-group variation arises from the fact that later language development leads naturally to greater diversity in the resources available to individual

writers, and thus to greater diversity in the resources they deploy in any particular context (Tolchinsky, 2004). Tolchinsky states that, “as children grow older, the discrepancies rather than the similarities in their language use become more evident” (Tolchinsky, 2004, pp. 235). In the current study, it is assumed that at the level of the group, these features of individual variation will not mask those aspects of language knowledge that are shared by members of a group. Nevertheless, this individual diversity as a consequence of later language development will be born in mind when interpreting the results of the study.

The tables help clarify the logical underpinning of the methodological approach adopted in the current study. The study is concerned with identifying and interpreting differences in the language knowledge of the four groups of participants. A construction that is used frequently in the writing of Early Immersion Thai writers and English Mother Tongue writers, but is used rarely, and inaccurately, in the writing of Late Immersion Thai writers on the same task might be considered, logically, to be learned late. On the other hand, a construction that is used *more* frequently by Late Immersion writers than by the other two groups on the same task is clearly acquired relatively early. Its frequency might be due to the fact that, given it has been acquired early, it is an available resource. The other groups may have more varied inventories of grammatical constructions at their command, and might therefore use this particular construction less frequently. If, on the other hand, a construction is deployed more frequently by the Early Immersion Thai group than the EMT group, and rarely, if at all, by the LIT group, developmental factors may not adequately explain the observed patterns, and cultural factors might be invoked.

6.6 THE COLLECTION OF TEXTS

i. Writing Prompts

Three writing prompts were used, summarized in table 6.5 below (See Appendix iii. for original prompts). It was considered of some importance to collect texts differing somewhat in terms genre, and the register variables field, tenor and mode. By doing so, the sampling range of lexicogrammatical and rhetorical structures was maximised. The prompts were not specially designed for the study, but had been used as part of internal

examinations at SJIS. Two of the writing prompts, Robot Progress and Space for Everyone, were taken from a National Curriculum Test of English (QCA, 2005). The third task, the Perfect Teacher, was part of an end-of-year examination in English as a Second Language given to all pupils with ESL in year 9.

One way of considering the nature of these three tasks systematically, and how the nature of each task might be expected to influence lexicogrammatical choice is through the register variables field, tenor and mode discussed in chapters 1 and 4, and genre theory (Martin, 1992; Martin and Rose, 2007; Martin and Rose, 2008).

Table 6.5: An analysis of the writing tasks used in the study

TASK	SUMMARY	FIELD	TENOR	MODE	GENRE
Robot Progress	Students must imagine they are engineers working on a project to build a robot capable of various tasks around the home. They write a report on the progress of the project.	Technology, household chores	Writing to an imagined audience of a project manager - unequal power relationship	Field structured written text: Text organization is largely pre-determined by the task prompt	Project Report: recounting progress, describing functions, describing problems and explaining solutions
Park Letter (Space for Everyone)	Students imagine that they are users of a public park. They are presented with proposed rule changes for park users and write a letter to the park supervisor commenting on the proposals.	Public parks and activities within them, rules and regulations	Writing to an imagined audience of a park supervisor - equal power but distant relationship	Field structured written text with genre structured paragraphs: the rules in the prompt determine the organization of the text by providing topics to be addressed. Paragraphs addressing specific rule changes allow writers a degree of freedom in the organization of content (to argue inductively or deductively, for example).	Argument (hortatory): persuading the reader that rule changes will have a positive or a negative outcome in order to affect the eventual choice of rules adopted
The Perfect Teacher	Students write an article for a school magazine presenting their idea of what constitutes a perfect teacher.	Personal characteristics, Education	Writing to an imagined audience of fellow students – equal power and close	Genre structured written text: writers have significant freedom in terms of how content is organized in order to address the task.	Argument (discussion or exposition): presenting the characteristics of an ideal teacher in order to persuade the reader that the views are valid

One dimension of some significance differentiating the three tasks is picked up by both the genre and the mode in table 6.5. Two of the tasks, Space for Everyone and the Perfect

Teacher, involve the presentation and justification of opinions. The third task, Robot Progress, is a report calling on the writer to recount what has been done and explain problems, and how they have been solved. As this is the case, the texts differ in the extent to which they are field or genre structured (Martin, 1992). Field structured texts are organised according to the external realities of the real world. For example, a recount is organised in the order that events happen. Genre structured texts present arguments and ideas organised according to the writer's assessment of what will be successful in terms of his or her objectives. Such texts therefore offer more potential for cross-cultural variation given that the organisation of propositional content within such texts is not determined by the nature of the field, as it is, for example, in an explanation of a natural phenomena such as the water cycle, or a recount of a series of events in chronological order. Therefore, a genre structured text is perhaps more likely to display variation due to cultural influence.

Another potentially important factor that may have a bearing on whether culture may significantly influence written discourse is the extent to which tasks involve an element of persuasion. Persuasive discourse demands that a writer be particularly attuned to the expectations of the reader in order that information is presented clearly and rhetorical appeals are effective. Sociolinguistic and rhetorical knowledge reflecting the first culture may be drawn upon leading to text that is subtly at odds with the expectations of a native speaking reader. Both the Perfect Teacher and Space for Everyone tasks involve elements of persuasion.

ii. Writing Conditions

The two Thai immersion groups wrote their texts under exam conditions as part of end-of-year examinations. The same was the case for the EMT group. The TWT group was supervised by their teachers, though with instructions for the length of time they should spend writing. However, the texts written by the Thai group writing in Thai were significantly shorter than those written by the EMT group and the two Thai focus groups writing in English. This is likely to be the result, in part at least, of a lack of familiarity with the task type. It nevertheless has to be acknowledged that the TWT group may have

written their texts under somewhat different time constraints, and with perhaps less clear motivation, than the other three groups.

6.7 ETHICAL CONSIDERATIONS

The current study followed the ethical guidelines laid down by the British Research Association's ethical guidelines for educational research (BERA, 2011), and was cleared by Sheffield Hallam's University Research Ethics Committee. The study does not deal with data that might typically be considered sensitive. Nevertheless, the principle of informed consent (Cohen, Manion and Morrison, 2011) was adopted as far as possible given the fact that data collection took place across three educational institutions. Informed consent implies that subjects have the right to choose whether they wish to participate, having been provided with enough information to understand the nature of the study and how it may infringe on their rights as individuals. All study participants at Saint John's International School, and their parents, were informed in writing that a study was being undertaken on student writing as part of research project and that the writing samples to be used in the project were collected from end-of-year assessments. The option not to participate in the study was offered, but no students chose to opt out.

The researcher liaised with the principal of Saint John's Thai School and the Head of English at Bangkok Patana School in order to collect samples designated as the TWT and EMT groups in the current study, and the nature and purpose of the study was explained to them in some detail. It was suggested that similar procedures to those outlined above be undertaken at these schools. However, it was not possible for this to be insisted upon and contacts at these two participating schools felt that, given the fact that data collected was neither sensitive nor personal in nature, it was sufficient to ensure anonymity for all study subjects. It is considered that the teachers of the students at these schools, acting in loco parentis, were in a position to make this decision, and all subjects in the study are anonymous. The names used in the study for the EIT and LIT students are not their real names.

A further potential concern in any study is the possibility that participants might have been disadvantaged in some way due to their participation in the study. The participants in the current study were not subject to either unfair advantage or disadvantage as a result of their participation. In SJIS, texts were collected during end-of-year tests that were due to take place with or without the study. Similarly, for the EMT group, the study task prompts were incorporated into the assessment procedures of their year group and were completed by all students in the year. The responses of the TWT group were not assessed by their teachers, and therefore their performance on these tasks was not in any way detrimental to these students.

6.8 DATA ANALYSIS

The study addresses the research questions in three complementary ways:

- i. Counting of a range of lexicogrammatical features and comparing their frequencies between groups, accompanied by descriptive analysis of features in order to identify how they were used by writers in texts
- ii. The analysis of the organization of propositional content using Rhetorical Structure Theory
- iii. The analysis of specific features within texts written by the four groups to address the question of cultural influence on writing

These three approaches combine to address the cultural and developmental questions, and are explained in turn.

i. Counting lexicogrammatical features

As discussed in chapter 1, a range of approaches have been adopted to study language knowledge. Drawing upon the work of Cameron (Cameron, 2003; Cameron and Besser, 2004), and the approach taken by corpus linguists such as Biber (1988; Biber and Conrad, 2009), a primary source of data for the current study comes from frequency counts of lexicogrammatical features. This approach relies on the classification and accurate counting of lexicogrammatical items and constructions. The study draws upon systemic-functional

categories and terminology in order to do this (Halliday and Matthiessen, 2004; Martin, 1992; Martin and Rose, 2008).

Tabulating the texts and counting features

Systemic functional theory represents the resources available to construe experience at the level of the clause by reference to a nuclear model, as discussed in the first part of the literature study (Halliday and Matthiessen, 2004; Martin and Rose, 2007). The basic elements of clause structure were used to organize student writing into columns to facilitate the accurate counting and analysis of language features. This is illustrated in figure 6.3 below.

		CIRCUMSTANCE (or cohesive conjunction/inter- personal adverb)	PARTICIPANT	PROCESS	PARTICIPANT	CIRCUMSTANCE
SUB- ORDINAT OR (Binding conjunction)	LINKING CONJUNCTI ON	ADJUNCT (Thematic adjunct slot)	SUBJECT NOUN GROUP	VERB GROUP	OBJECT/COMPLEMENT NOUN GROUP	ADJUNCT
			We	will be able to change	the design and outer layer	by this November.

(NE_1 Robot Progress)

SUBORI NATOR	LINKING CONJUNCTI ON	ADJUNCT	SUBJECT NOUN GROUP	VERB GROUP	OBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
		In addition,	teachers	should listen to	their students' opinion and point	
	and			give	help	
if			they	can.		

(LI_EN Perfect Teacher)

Figure 6.3: Placing elements of the clause in columns according to grammatical function

Moving beyond the clause, coordinating (linking) and subordinating (binding) conjunctions were also placed in columns, as were adverbial elements, including cohesive conjunctions, circumstances and interpersonal adverbs, as illustrated in the example in figure 6.3 above.

Using the same basic approach as Cameron (Cameron, 2003; Cameron and Besser, 2004), texts written by members of each of the four groups were typed up into tables of the kind

illustrated above. This facilitated the accurate classification and manual counting of resources deployed by writers.

Table 6.6 below summarises the lexicogrammatical features that were examined in the study.

Table 6.6: Features counted in the current study

GENERAL CATEGORY	SPECIFIC FEATURES
Clause participants and process types (nominal groups, including adjective groups, in the subject and object/complement slots)	The mean length of subject and object/complement noun groups, the frequency of single-word subjects, the frequency of abstract nouns (including nominalizations and gerunds), the frequency of predicative adjectives, the frequency of material and behavioural processes counted together, the frequency of relating and existential processes counted together
Modification of the verbal group	The frequency of modal verbs with a deontic function, the frequency of modal verbs with an epistemic function, the frequency of <i>would</i> , the frequency of passive verbs, the frequency of secondary tenses (e.g. present perfect, past continuous)
The thematic adjunct slot (Cohesive conjunctions and other adverbial elements placed as a theme in a clause)	The frequency of circumstances, the frequency of interpersonal adverbs, the frequency of cohesive conjunctions, the frequency of combinations of two or more of these categories in this clause slot
Clause complexes and overall complexity	The overall complexity of text measured in clauses per t unit; the frequency of conjunctions marking hypotactic expansion; the frequency of hypotactic projection marked by <i>that</i> or <i>wh</i> - words (e.g. <i>She says that, He believes that...</i>) and the frequency of mental and verbal processes; the frequency of paratactic expansion (<i>and, so, but, or</i>)
Errors	The proportion of t units containing no errors, a single error and multiple errors; the frequency of the following error categories per t unit: tense errors, omission of BE, verb agreement errors in present tense, verb form errors other than those involving tense (e.g. selection of verbing vs base form), plural/singular noun inflection errors, errors in the determiner (e.g. the wrong article or omission of an article)

For each feature counted, counts were averaged in some way such that texts of different length could be compared. For example, the total count of modal verbs was divided by the total number of verbal groups to give an average of modal verbs per verbal group. In the

interest of clarity, the details of this averaging process, which differed somewhat according to the feature in question, are explained in the section presenting the results.

Quantitative and descriptive approaches to the data

The current study is a small scale study. In total, five texts were analyzed from each group for each of the three writing prompts used (15 texts from each group). In order to present as detailed and reliable a picture of the variation between groups of writers as possible, the study combines frequency counts of features with description of examples from texts. Description is crucial in providing information about how features of language were used by participant groups. The section of the thesis presenting the results of the study therefore includes examples of text accompanied by description of the linguistic features of these texts and how they were used by participants.

Statistical analysis

Measures of the frequency of a range of lexicogrammatical features are presented as group means. Ideally, a study such as this would include inferential statistical techniques, such as the t test, to allow the statistical significance of differences between means to be assessed. However, given the small sample size, inferential statistics were considered inappropriate and are not included.

ii. The investigation of rhetorical structure and associated features

As the review of the literature has shown, there is some evidence that certain East Asian cultures prefer different patterns of rhetorical organization to those of English. The current study looks at the writing of Thai learners of secondary school age. Learners of this age are still developing their knowledge of their native language, particularly in terms of the way the constructions they already know can be used appropriately in formal and academic contexts, but also in terms of new syntactic attainments, such as the deployment of conjunctive adjuncts to make cohesive links between sentences, the use of grammatical metaphor, and the growth in the use of subordinate clauses in relative constructions and as adverbial clauses (hypotactic expansion). Growth in rhetorical knowledge is a further area

of later development, as learners are exposed to new genres and strive to gain control of them. The participants in the current study are likely to still be developing their knowledge of rhetorical structures in both their first and second languages.

The approach taken to the analysis of rhetorical structure in the current study involves the application of rhetorical structure theory (RST) (Mann and Thompson, 1988; Thompson and Mann, 1987; Kong, 1998; Mann, Matthiessen and Thompson, 1989; Taboada and Mann, 2006; Taboada, 2014; O'Brien, 1995). Rhetorical structure theory is a theory of text cohesion as well as a technique for discourse analysis. The core assumption in RST is that clauses, and larger segments of discourse, are purposefully juxtaposed in text by the writer in order to achieve a particular effect with readers (see chapter 2).

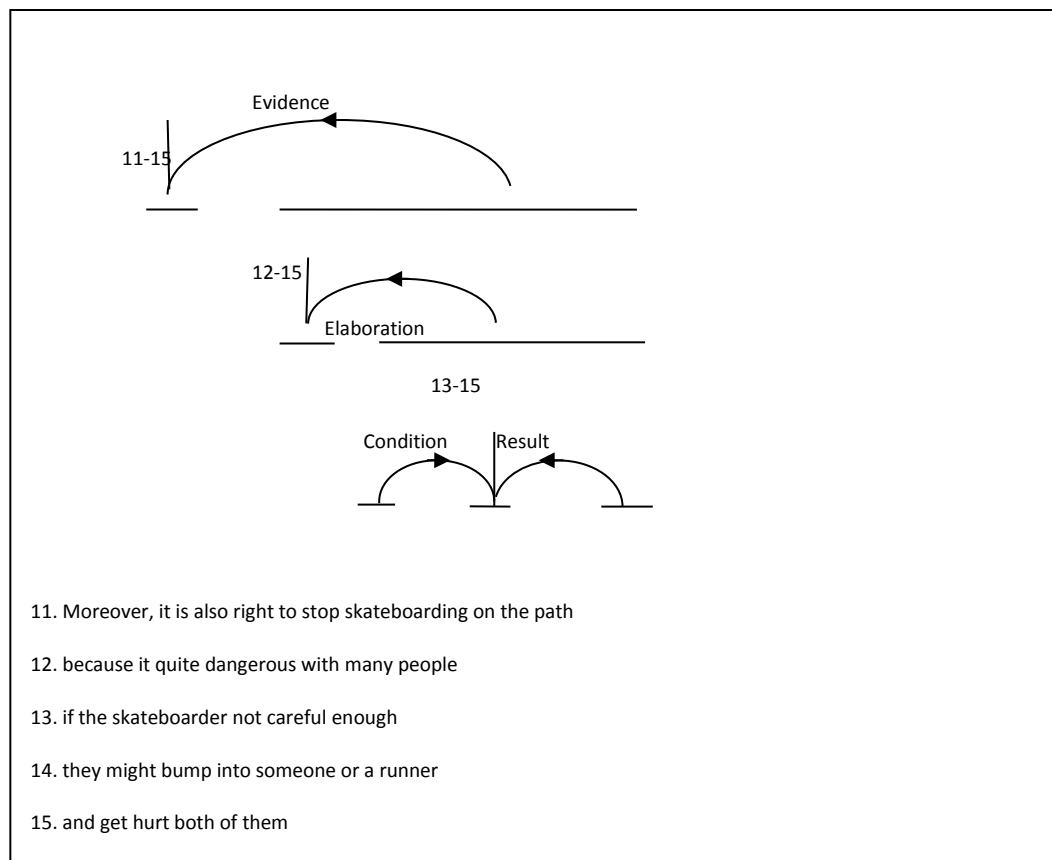


Figure 6.4: RST Analysis of text segment (LI_TW Park Letter)

Figure 6.4 above provides an example of an RST analysis of part of a text from the study.

The first step in RST analysis is to divide a text into smaller units for analysis, usually of

clause length (though longer units may be used, see O'Brien, 1995). RST assumes that, in the majority of cases, when two text segments are juxtaposed, one segment is more central to the writer's purpose than the other. The central element is referred to as the nucleus, the subordinate element the satellite. RST relations hold between nucleus and satellite reflecting the writer's intention. The hierarchical relationship inherent in the nuclear-satellite pairing extends to larger text structures, and ultimately, according to RST, the entire text. In the example, one clause relationship, *evidence*, is the central function to the entire sequence of clauses. Clause 11 serves as the nucleus to both clause 12, and the following clauses. Clauses 12 to 15 provide *evidence* to support the assertion in clause 11. An RST analysis is displayed as a tree, such as that in figure 6.4, which reveals the hierarchy of the text structure and the relations that hold within the text. In the example, clauses 13 to 15 elaborate the evidence stated in clause 12. In the RST diagram, successively subordinate nucleus-satellite relations are represented by levels in the RST structure tree. The highest level represents the whole sequence of clauses. Individual clauses are represented in the RST diagram by horizontal lines. Arcs join each nucleus to its satellite, with arrows pointing in the direction from satellite to nucleus. An RST software tool (O'Donnell, 2004) was used to facilitate the drawing of RST structure trees.

Rhetorical structure relations are defined in terms of constraints on the nucleus and satellite, and the intention of the writer towards the reader. The RST definition for the *evidence* relation is shown in table 6.7 below (From Taboada, 2014).

Table 6.7: Formal definition of the *evidence* RST relation

Name of Relation	Constraints on either nucleus or satellite individually	Constraints on nucleus and satellite	Intention of Writer
evidence	On Nucleus: Reader might not believe writer to a degree satisfactory to writer On Satellite: Reader believes satellite or will find it credible	Reader's comprehending of satellite increases reader's belief of nucleus	Reader's belief of nucleus is increased

In addition to nucleus-satellite relations of the type described above, RST also recognises a set of multinuclear relations, where the elements are of equal rank in terms of their

centrality to the writer's purpose. Examples of multinuclear relations include *sequence* and *conjunction*. Definitions of these two relations are given in table 6.8 below.

Table 6.8: Formal definition of two multinuclear RST relations

Relation Name	Constraints on each pair of nuclei	Intention of writer
Conjunction	The items are conjoined to form a unit in which each plays a comparable role.	Reader recognises that the linked items are conjoined.
Sequence	There is a succession relationship between the situations in the nuclei.	Reader recognises the succession relationship among the nuclei.

Nucleus-satellite relations are generally divided into two broad categories, Subject Matter and Presentational relations (Taboada, 2014; Mann, Matthiessen and Thompson, 1989). Presentational relations involve the writer intending to influence the reader in some way. The *evidence* relation, for example, increases the belief of the reader in a proposition. The relations *condition* and *result* are considered to be Subject Matter relations, where the writer's intention is simply that the reader recognises the intended relation. Appendix i. presents a list of RST relations used in the study and their definitions from Taboada (2014).

The investigation of rhetorical structure in the current study focuses on four areas:

- variations in the rhetorical structure of whole texts within and between groups in the study;
- the source of attitudes expressed within text paragraphs in the two tasks involving overt persuasion (Perfect Teacher and Park Letter), and how this relates to rhetorical structure;
- rhetorical structures that are distinctive to Thai writers;

- the development of rhetorical knowledge within and between groups.

To investigate the source of attitudes within clause packages (defined here as a group of clauses united by a single topical theme, often marked within the text as a paragraph; see Katzengerger, 2004 for a discussion of the term), the overall source of the attitudes expressed within the clause package was classified as being *the writer*, as in “I think that the perfect teacher should be kind”, *a general group* as in “Most students think that the perfect teacher should be kind”, *a specific person* such as “John, a 15 year-old-student at Bangkok Pattana”, or *no explicit source*, where an attitude is simply stated, as in “The perfect teacher should be kind”. The number of clause packages with attitudes sources in each way was counted and then divided by the total number of clause packages involved in the count in order to compare texts of different length. Rhetorical structures that may be distinct to Thai learners are investigated by comparing the structures deployed by the two Thai groups to the EMT group, and subsequently, to the Thai group writing in Thai. The development of rhetorical knowledge is examined through descriptive analysis of writers’ abilities to combine rhetorical structures effectively to achieve a single purpose, and the “rhetorical depth” of texts measured as the number of levels in a rhetorical structure tree for the whole text.

iii. The analysis of how certain features function within texts written by the four groups

Although the current study does not set out to confirm or reject specific hypotheses, the question of cultural influence on language knowledge and use identifies particular areas for investigation. In the most part, the combination of counting lexicogrammatical features, descriptive analysis of how features are used and rhetorical structure analysis provide the required data to consider cultural influence. However, in order to investigate whether Thai writers show a relative preference for emotional as opposed to ideational evidence, and indirectness as a strategy to avoid potential conflict, further data is collected focusing on these specific features.

Based on the work of Nisbett et al (2001), and supported by analyses of writing of adults (e.g. Kong, 1998; Zhu, 2000; Chakorn, 2008), a possible point of variation between Thai writers and native English writers might be the likelihood to deploy rhetorical appeals that are essentially ideational in nature, expressing relations of causation and appealing to syllogistic reasoning skills in the latter, versus a tendency to deploy evidence that may refer to emotional states, hopes, desires and other categories of emotional experience in the former.

The following excerpts illustrate this point (Figure 6.5). The first is taken from the corpus of Woodward (2008), and was written by a Thai Late Immersion pupil in the school that is the focus of the current study. The second excerpt was taken from exemplar texts provided by the National Curriculum of England and Wales. The writing task involved participants writing to the manager of a public park commenting on some proposed rule changes for people using the park.

1. Secondly is about a ball games
 2. which are only allowed at weekends.
 3. **I think it you (should?) be allowed on everyday**
 4. because ball games is also a sport
 5. which people love to play
 6. and every age group also can play
 7. so please can you allowed it everyday.
- Excerpt 1. Late Immersion Thai writer (LIPNN)
1. **As for the skateboard ramp,**
 2. **I believe it is unacceptable.**
 3. The area is only small
 4. and it would take up most of the space.
 5. leaving no room for other sports, let alone football.
- Excerpt 2. Exemplar text from NC marking rubric

Figure 6.5: Two excerpts illustrating the investigation of persuasion

Clause (3) in excerpt 1 makes a general claim relating to rule changed. It is supported by clauses (4) and (5). Clause 5 emphasises the *value* of the suggestion, in the framework of Martin and Rose (2007) introduced above. In other words, it refers to attitudes of people towards the move. In the second excerpt, clause (2) states the writer's evaluation of the proposed rule change, and expression of attitude. However, the material supporting this attitude is ideational rather than attitudinal/emotional in nature.

In order to gather more systematic evidence investigating this pattern, segments of the Park Letter texts written by each of the four groups addressing the topic of the rule change regarding ball games (only to be allowed at weekends, see task prompt, Appendix iii.) were analysed. This topic was chosen because most writers addressed it in some way, and the Thai writers writing in Thai developed the topic to some extent, meaning that there was both nucleus and satellite material to analyse for all groups.

Initial examination of how writers addressed this topic revealed that all writers disagreed with the proposed rule change limiting ball games to the weekends, but differed in the material they provided to support their view. The text segments addressing the topic of this rule change were split into clauses, as in the example above, and supporting material was categorized according to its content (see results section) and the frequency of various categories was counted. Appendix vii. further exemplifies this approach.

A similar approach was taken to investigate indirectness as a face-saving strategy (Hongladarom, 2007, discussed in chapter 5) in texts responding to the Park Letter prompt. The way writers from all groups in the study began these texts was examined in order to discover if Thai writers tended to avoid direct criticism of the rule changes at the beginning of their texts, as the literature review suggests. Introductory segments to Park Letter texts from all four groups were examined and classified according to whether they represented only a negative view of the rule changes, only a positive view, a balanced view (i.e. they suggested some proposals were good and others were bad) or a neutral view (i.e. they began the text without taking any position on the proposals). Appendix viii. provides examples of this classification of opening segments.

6.9 SOME SHORTCOMINGS OF THE STUDY

It is acknowledged that the current study is small in terms of the number of learners involved (a total of 10 students in the two Thai Immersion groups, writing 30 texts) and the total corpus of texts (a total of 59 texts). The limited scope of the current study is a factor that bears on the degree to which the results and conclusions of the current study may be generalized to other situations. Nevertheless, despite the relatively small scale of the

study, it does not seem unreasonable to argue that the study can be cautiously taken as illustrative of learning outcomes for Thai secondary school learners of English in this particular context. Moreover, the context in which these students learned their English is well-understood and extraneous variables that may lead to “noise” within the data (see discussion of previous research in chapter 4), such as uncontrolled duration of exposure to English amongst participants, language background of participants and genre have been controlled in the current study. It therefore seems reasonable to propose that interpretation of data gathered during the current study may in some senses be less problematic than is the case with some larger-scale studies in which control of these factors was either not attempted or was not possible (e.g. Reynolds, 2002, 2005, discussed in chapter 4).

It is also acknowledged that variability between individuals within such small groups is likely to play a significant part in determining the frequency of lexicogrammatical resources deployed in writing, with a single anomalous individual potentially exerting a significant influence on group means. Consistency of results between writing tasks, descriptive analysis of the way features are used by participants from different groups, and reference to previous findings in the research literature are all drawn upon in considering the potential importance of differences between group means identified in the study of lexicogrammatical features. On the basis of these combined factors, it will again be cautiously asserted that despite the small scale of the study and the potential for outliers within groups to distort the picture, important differences between groups do emerge.

Data collection across three schools presents quite significant challenges to the lone researcher with a day job. It is necessary to rely on the goodwill of colleagues in both your own and other institutions, and it was not possible to administer the completion of writing tasks personally. This leads to a degree of uncertainty regarding the consistency of such control variables as time on task. Again, though this is less than ideal, it should not lead to a significant lack of confidence in the results of the study. The texts written in English by the Thai Immersion groups were written in 40 minutes in exam conditions and it can be

asserted with reasonable confidence that the same was true of the EMT group, since the teachers responsible for collecting these texts used the tasks as part of their ongoing assessment within the school and teachers of different groups were under instruction to ensure that all groups were treated in the same way. However, it should be acknowledged that the collection of writing samples from the TWT group which were comparable to the samples written by the international school pupils proved to be difficult. The writing tasks, though translated into Thai, were of an unfamiliar kind for Thai students not educated in the international system and, possibly as a result of this, the texts written by the TWT group were markedly shorter than those produced by the three groups writing in English. Although this is the case, each of the TWT texts analysed in the current study were coherent texts with analysable rhetorical structures. The writers had clearly understood the writing prompts and responded in a manner they felt appropriate. There is no reason to consider that they do not provide reasonable if somewhat abridged exemplars of the rhetorical structures and lexicogrammatical choices Thai writers would consider appropriate.

Section 5: Results

Chapter 7 – Results of the Study of Lexicogrammar

7.1 INTRODUCTION

The results are organized into three chapters: This chapter is concerned with the study of the lexicogrammatical resources used by the three groups writing in English; the second chapter (chapter 8) examines the rhetorical structure of the texts written in English; the third and final chapter in the results section (chapter 9) looks at the texts written by the Thai group writing in Thai, focusing on specific areas of the use of lexicogrammar, rhetorical structures and persuasive strategies in the Thai texts that may be paralleled by Thai Immersion writing in English, and may therefore suggest cultural influence. Before presenting the findings of the investigation of lexicogrammar, the data set is overviewed and variation within the two Thai Immersion groups is briefly discussed.

7.2 OVERVIEW OF CORPUS

Table 7.1 below presents an overview of the corpus of texts analysed in the study in terms of the total word length of texts. As already noted, the EMT group of writers wrote longer texts in English than either of the Thai groups, and the Thai language texts written by the group of Thai learners from a Thai secondary school were by far the shortest in terms of word length. Another point of note relates to within group variation. Standard deviations were significantly higher for the EMT group than they were for the EIT group on two of the tasks at least. This indicates greater variation in text length within the EMT group than within the EIT group. Similarly, the LIT group showed greater variation in text length on at least two tasks than their Early Immersion Thai peers.

Table 7.1 Descriptive statistics for the total word length of texts for all groups in the study

	English Mother Tongue Group		Early Immersion Thai Group		Late Immersion Thai Group		Thai Writing in Thai Group	
	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
Perfect Teacher Task	571	190	275	34	313	172	139	9
Park Letter Task	482	136	266	35	270	68	141	17
Robot Progress Task	569	69	388	83	445	152	129	27
TOTAL NUMBER OF TEXTS	15		15		15		14	

7.3 VARIATION WITHIN THE THAI IMMERSION GROUPS

The central focus of the study is the Early and Late Immersion Thai groups. Although the primary objective of the study is to compare these groups with each other and with the other two groups from whom samples of writing were collected, it is also important to note that there is a degree of developmental variation within each of the Thai Immersion groups.

Tables 7.2 and 7.3 below present descriptive statistics for all texts written by each of the Early and Late Immersion Thai writers. The measures used rely on a structural unit known as the t unit to compare texts of different length (see Larsen-Freeman, 2006). A t unit is defined as one main clause and all subordinate clauses attached to it and other dependent clauses embedded within it (Larsen-Freeman, 2006, see section 6.9 for further details and examples). Accuracy refers to the proportion of error-free t units in a text. Complexity refers to the mean number of clauses per t unit and elaboration (called *fluency* by Larsen-Freeman, 2006) is the number of words per t unit. Thus, complexity provides a measure of the extent to which a writer combines clauses and embeds them as relative clauses and nominal clauses, whereas elaboration provides some measure of the extent to which the noun groups, verb groups and other elements within clauses have been expanded by a writer.

These broad brush statistics do not reveal a detailed picture of the sources of lexicogrammatical variation within the groups. The figures do, however, illustrate that

there is some systematic variation within groups. In the LIT group, two participants, designated LI_EN and LI_YK, wrote shorter texts with a higher error density and lower figures for *complexity* and *elaboration* than the other students in the group. In the subsequent presentation of the results, these two writers are referred to as *LIT writers who have made less progress*, or *less proficient LIT writers*. The remaining three group members are sometimes referred to as *more proficient LIT writers*, or *LIT writers who made more progress*.

Table 7.2: Descriptive statistics for all texts written by the Late Immersion Thai group

	LI_EN	LI_PG	LI_PK	LI_TW	LI_YK	MEAN	SD
ACCURACY (proportion of error free t units)	0.18	0.19	0.21	0.32	0.19	0.22	0.13
COMPLEXITY (clauses per t unit)	1.96	2.56	2.56	2.24	1.52	2.17	0.48
ELABORATION (words per t unit)	10.74	15.22	13.91	14.65	10.50	13.00	2.34
WORD LENGTH	229.33	368.67	502.67	394.67	217.33	342.53	120

Statistics for the Early Immersion group, presented in table 7.3 below, demonstrate that the within-group variation of this group is in some senses more complex than the picture seen in the LIT group. Accuracy, complexity and elaboration viewed together do not present such a coherent picture of more and less proficient members within the group. However, the measure of accuracy does appear to differentiate subjects in a meaningful way. The participant EI_EN, having joined English-medium education some 3 to 4 years later than the other group members, is likely to be at an earlier stage of development to other participants, a suggestion that is supported by her score for accuracy. The participant EI_VN wrote with a level of accuracy that overlapped with the Late Immersion group, and is also considered to have less developed language knowledge when compared to the remaining three members. In the subsequent presentation of results, statements concerning *Early Immersion students who made less progress* or *less proficient EIT writers* refer to these two participants. Two participants, EI_PN and EI_PR, each achieved an accuracy of around 0.80; in other words, 80% of t units were without error. In the

subsequent presentation of results, these two participants are referred to as subjects who *made more progress, or more proficient EIT writers*. The writer designated as EI_KN was somewhere between these two sub-groups.

Table 7.3: Descriptive statistics for all texts written by the late immersion group

	EI_EN	EI_KN	EI_PN	EI_PR	EI_VN	MEAN	SD
ACCURACY (proportion of error free t units)	0.51	0.58	0.79	0.83	0.32	0.61	0.22
COMPLEXITY (clauses per t unit)	1.93	2.60	1.88	2.22	2.35	2.20	0.42
ELABORATION (words per t unit)	14.06	15.48	13.87	12.98	15.29	14.33	1.51
WORD LENGTH	298.67	305.00	320.33	285.00	339.00	309.60	21

7.4 THE ORGANISATION OF RESULTS

The study seeks to investigate variation between groups and to interpret this variation in terms of developmental and cultural factors. This being the case, the Early Immersion Thai (EIT) group is pivotal: These learners have spent the majority, or all, of their educational lives in English-medium education. Comparing this group to the Late Immersion Thai group (LIT) gives an indication of the way resources may develop over time. Comparing the EIT group to the EMT group may give an indication of the way Thai culture influences the English language knowledge of Thai learners, as well as evidence of those linguistic resources that may present a particular challenge to Thai learners living and studying in Thailand, even those having spent many years in an English-medium school. The presentation of the results recognizes the central role of the EIT group, and quantitatively compares the other two groups to this group.

The results are presented in seven sections:

7.5 Clause participants and processes

7.6 Complexity in the verbal group – secondary tense and passive voice

7.7 Modal verbs

7.8 The thematic adjunct slot

7.9 Complexity and clause complexes

7.10 Lexicogrammar and discourse

7.11 Grammatical errors

Each section begins with a brief introduction explaining, where necessary, the categories that were counted and analysed, their function and the approach taken to enable the comparison of texts of different word length. The sections conclude with a summary of the key features identified in the data. The chapter concludes with a summary of the findings.

7.5 CLAUSE PARTICIPANTS AND PROCESSES

i. EXPLANATION OF GRAMMATICAL CATEGORIES AND MEASURES

Processes

The analysis of clause elements is based upon the model of the clause from SFG introduced in chapter 2. Categories of process type used in SFG were also explained in chapter 2. This section focuses on the relative frequency of processes that express actions (material and behavioural processes in SFG, Halliday and Matthiessen, 2004) compared to relational processes. Relational processes function to link participants in a clause and define how they relate one to the other; whether, for example, one participant is an attribute of the other (i. and ii.), a possession (iii), or a circumstance (iv):

- i) *Bob is tall.*
- ii) *Bob is a basketball player.*
- iii) *Bob has an NBA contract.*
- iv) *Bob is at home.*

Circumstantial relations can also be expressed through the verb itself. Circumstantial relational processes include verbs such as *cause* and *lead to* that enable the expression of cause/effect relationships within the clause.

There is one further important distinction to make when considering relational processes: the distinction between identifying and attributive clauses. The examples of relational clauses i) to iv) above are all *attributive clauses* in the sense that each participant following the process is a packet of information concerning Bob (an attribute of Bob, in other words). The following clause differs from these examples in that it *identifies* Bob:

vi) Bob is the captain of the Basketball team.

The relationship between the participants *Bob* and *the captain of the basketball team* is one of equivalence. This kind of relational clause is referred to an *identifying clause*.

Identifying clauses are important in academic and formal written registers (Halliday and Matthiessen, 2004, pp. 234-235), where they may serve to link abstract participants (vii) and act as an additional resource to structure discourse through logical grammatical metaphor (viii):

vii) Subduction is the process where oceanic crust is forced beneath another tectonic plate.

viii) One important cause of the industrial revolution is the development of new technology.

Analysing variations in the relative frequency of the various categories of process in a text provides information regarding the meanings that a writer is creating. Is a writer, for example, construing the field in terms of actions or in terms of the relationship between abstract entities? More formal, academic writing may tend towards the latter (see Biber 1988, for example; also, the discussions of grammatical metaphor in Martin and Rose, 2007 and 2008) and growing mastery of academic language might be reflected in the increasing frequency of more complex, relational clauses at the expense of behavioural and material clauses in samples of academic writing.

In order to investigate patterns of variation, processes were classified into 4 groups in the current study: relational and existential processes, material and behavioural processes, mental processes, and verbal processes. Absolute counts of process types were divided by the total number of verbal groups included in the count for each text, thus allowing comparison of texts of different length. The current section focuses on the relative frequency of relational and existential processes as compared to material and behavioural processes. Verbal and mental processes are examined in the later section dealing with clause complexes.

The complexity of participant noun groups

In order to identify patterns in the resources writers deployed to expand nouns, the mean length of nominal groups were calculated in the subject and object slots along with the proportion of single-word subjects used by participants.

Abstract nouns and nominalisations

Abstract nouns, including experiential grammatical metaphor, provide a resource for expressing abstract concepts and organising discourse by enabling a writer to refer to semiotic entities, from whole texts to individual utterances, as Things. Control of grammatical metaphor is an important attainment in achieving control of academic language in school, as was highlighted in chapter 3 (e.g. Martin and Rose, 2008).

Table 7.4 Categories of abstract noun (adapted from Martin and Rose, 2007)

Semiotic	Issue letter notice suggestion idea proposal regulation comment discussion
Generic	way problem chance matter
Metaphoric – qualities	confidence noisiness responsibility
Metaphoric – processes	education a boost a threat an intention emotion
Gerunds	<i>Having</i> a grown up to help you through school life when you need it

Table 7.4, above, illustrates the various categories of abstract noun recognised and counted in the current study. As a measure of the frequency of abstract nouns in learner texts, the number of different types of abstract noun was counted in each text in subject and object slots, and divided by the total number of noun groups in order to allow a comparison between texts.

ii. STATISTICS

Tables 7.5, 7.6 and 7.7, below, present statistics for the frequency of material and behavioural processes versus relational and existential processes along with features within the nominal group investigated in the study.

Table 7.5: Relational and Existential Processes vs Material and Behavioural Processes (total count/total number of verbal groups). (Group means)

Feature	EIT Mean	LIT Mean	EMT Mean
Total relational and exist. Processes			
The Perfect Teacher	0.49	0.34	0.39
Park Letter	0.34	0.32	0.35
Robot Progress	0.33	0.26	0.38
Material and behave. Proc.			
The Perfect Teacher	0.23	0.36	0.30
Park Letter	0.39	0.47	0.37
Robot Progress	0.53	0.51	0.46

Table 7.6: Clause Participants (Group means)

Feature	EIT Mean	LIT Mean	EMT Mean
Mean Subject Length (in words)			
The Perfect Teacher	1.96	1.56	2.31
Park Letter	2.05	1.37	2.27
Robot Progress	1.78	1.49	1.92
Mean Object Length (in words)			
The Perfect Teacher	3.88	3.73	4.08
Park Letter	4.17	3.64	4.18
Robot Progress	4.26	4.25	4.53
Proportion of single word subjects			
The Perfect Teacher	0.51	0.75	0.48
Park Letter	0.60	0.74	0.55
Robot Progress	0.63	0.71	0.57

Table 7.7: Abstract Nouns and Nominal Clauses (Group means)

Feature	EIT Mean	LIT Mean	EMT Mean
Overall Abstract nouns (total types of abstract noun/total noun groups)			
The Perfect Teacher	0.16	0.08	0.16
Park Letter	0.17	0.09	0.26
Robot Progress	0.16	0.08	0.18
Overall Nominal Clauses (total count/total noun groups)			
The Perfect Teacher	0.03	0.03	0.07
Park Letter	0.04	0.02	0.06
Robot Progress	0.03	0.02	0.04

iii. ANALYSIS

Relational and Existential Processes vs Material and Behavioural Processes

As might be expected, EIT writers frequently used relational processes with adjectives in simple carrier-attribute clauses (BE) and possession clauses (HAVE). Of particular note in a study of academic language, BE was also sometimes used in more complex, identifying clauses, often to structure discourse through logical grammatical metaphor:

*So my second point to my perfect teacher **is** that they should give the correct amount of homeworks to their students.* (EI_EN Perfect Teacher)

In addition, more proficient EIT writers sometimes used relational processes with a more varied function. Notably, clauses and abstract nouns were sometimes used as participants in identifying clauses, and verbs of cause (e.g. *cause*, *result in*) were also used to express causal relations by more proficient students:

*Using a ramp on an unfamiliar surface **could cause** serious injury...* (EI_PN Park Letter)

One contrast between the LIT and EIT group was in the relative proportion of relational compared to action (material and behavioural) processes. Relational processes and verb BE were used less frequently by the LIT group than by the EIT group on all three tasks, relative to material and behavioural processes. The difference between means is greatest on the Perfect Teacher task (EIT=0.49, LIT=0.34, see table 7.5). Relational processes were invariably used in simple carrier-attribute clauses (BE) and possession clauses (HAVE). A

further point of note relating to academic uses of language is that relational verbs expressing causation were largely absent from LIT writing. However, BE was very occasionally used by writers in the LIT group in identifying clauses:

my idea is to ask you to think again (LI_PG Park Letter)

The EMT group made less frequent use of relational processes relative to material processes on the Perfect Teacher task, when compared to the EIT group, but used relational processes slightly more frequently than the EIT group on the Robot Progress and Park Letter tasks. On the Perfect Teacher task, EIT writers often described their idea of a perfect teacher in terms of attributes expressed as adjectives in simple attributive relational clauses, which accounts for the frequent use of relational clauses on this task by this group when compared to the EMT group. This pattern of adjective use is discussed further in section 7.10 below, which examines the interpersonal features of language at the level of discourse in more detail.

Overall, and of particular interest in the context of the current study focusing on academic language, EMT writers used a wider range of relational processes than EIT writers. Some EMT writers made particularly frequent use of identifying relational clauses with complex participants including nominal clauses and abstract nouns:

I agree, yes, building the ramp on a softer grass area will mean that when the skateboarder land a 'move', they may not risk injury as concrete areas may, but, if I may add to this, building a ramp also brings other threats such as - the wheels of a skateboard are not designed to be able to ride on some surfaces including grass. The wheels of the skateboard grip with the grass, and it continues to get stuck in the wheels causing a fall. This can pose as a threat to any skateboarders who may take a large jump, land and have their wheels get stuck, leading to a serious fall in some imagined cases. So, to conclude, the grass may cushion some falls but also it may and most likely cause a fatal injury. (NE_2 ParkLetter)

In this example, the writer uses relating processes to show how one abstract entity symbolizes or causes another. The Participants in these relational clauses are typically gerunds or nominalizations, where processes have been rendered as Things, or nominal clauses. This demands a quite sophisticated set of grammatical resources and leads to

discourse that is increasingly dense and abstract. This pattern of variation towards more abstract and informationally dense discourse is discussed further in section 7.10.

The complexity of subject and object noun groups

The EIT group developed longer object/complements than subjects on average on all three tasks, as one would expect. Subjects were sometimes post-modified by relative constructions or prepositional phrases: *the problem about the robot freezing* (EI_VN Robot Progress); *the processor to make it work* (EI_VN Robot Progress)

Objects were sometimes long and also included post-modification by prepositional phrases and relative constructions, which sometimes included errors: *...a calm, friendly teacher which can easily understand...*(EI_EN Perfect Teacher)

In the writing of more proficient EIT learners, subjects and objects were also occasionally post-modified by participle modifiers: *The worst problem encountered* (EI_PN Robot Progress); *a joke relating to the topic of the lesson* (EI_PR Perfect Teacher)

The mean length of participants and the proportion of single word subjects are an important measure differentiating the writing of the Early and Late Immersion groups. Mean subject lengths were higher for the EIT group than the LIT group on all three tasks (see table 7.6). The LIT group also used a markedly higher proportion of single word subjects than the EIT group on all tasks (see table 7.6). This is a notable contrast between the two groups and reflects the relatively frequent use of general nouns (teachers, students) and personal pronouns (they you I). LIT writers post-modified subjects and, more frequently, objects using finite relative clauses and prepositional phrases: *people who play skateboard* (LI_PK). Objects in LIT texts were sometimes long, but often lacked control of form: e.g. *the teacher that very care about the student* (LI_PK)

Increasing length of participant noun groups appears to mark a developmental trend from LIT writers through EIT writers to the English Mother Tongue group (see table 7.6). Mean subject and object lengths for the EMT group are higher than EIT group means. Similarly, EMT group means for the frequency of single-word subjects are lower than the EIT group.

There is some overlap between these groups; however, some EMT writers deployed noticeably more complex noun groups, particularly in the subject slot, with more frequent use of post-modification and also more frequent use of nominal clauses.

Abstract nouns

Abstract nouns and nominalizations were used by most members of the EIT group: *option, problem, idea, purpose, proposal, ability, knowledge, education*. Gerunds were also sometimes used as clause participants: *proposing these restrictions...*

The use of abstract nouns was a salient and potentially important point of contrast between the EIT and LIT groups (see table 7.7). A few abstract nouns such as *problem* were used even by less proficient LIT writers. However, the LIT group used abstract nouns and gerunds markedly less frequently than the EIT group on all three tasks. Sometimes words were used by LIT writers in a grammatical role as nominalizations but with the incorrect form (e.g. *destroy* for *destruction*).

The EMT group used abstract nouns more frequently than the EIT group, with higher group means for the frequency of abstract nouns and gerunds on the Park Letter and Robot Progress tasks. Although there was overlap between the EMT and EIT groups on this measure, some members of the EMT group used a wider range of abstract nouns markedly more frequently than members of the EIT group: *completion, advancements, invention, absorption, release, adjustments, life, heat, pressure, profits* (NE_1 Robot Progress).

iv. SUMMARY – Clause Participants and Processes

Table 7.8, below, summarises the results of the study of clause participants and processes.

Table 7.8: Summary of results – clause participants and processes

Resource of Language	Trends
Clause level: Participants Experiential grammatical metaphor (nominalization) and abstract nouns more generally; Dense nominal groups	A trend in the length and complexity of clause participants can be recognized, particularly in the subject slot of clauses, with LIT writers using more simple and single word subjects, and EIT writers and EMT writers using more complex, post-modified participants, more nominal clauses and, particularly, more abstract nouns and gerunds as participants in clauses.
Processes A range of process types and clause types Logical Grammatical metaphor	The range of relational clauses deployed by writers varies between groups. Most Thai writers, and particularly the LIT group, use a restricted range of relational processes, notably BE, and mostly to link carriers to attributes. Some EIT writers use a wider range of relational processes, including verbs expressing cause such as <i>cause</i> and <i>result in</i> , and use BE more frequently to link more complex participants such as abstract nouns and nominal clauses. EMT writers use an even wider range of relational verbs to link complex, abstract participants, and make even more frequent use of BE to link complex, abstract participants.

7.6 COMPLEXITY IN THE VERBAL GROUP – SECONDARY TENSE, PASSIVE VOICE

i. EXPLANATION OF GRAMMATICAL CATEGORIES AND MEASURES

Passives and Secondary Tense

Passive voice enables events involving transitive verbs to be construed as happenings rather than actions by an agent, with the object of an active clause foregrounded and the agent becoming an optional element. Passives are relatively frequent in academic texts in certain subjects (Bailey et al, 2006), and are a feature of abstract, technical discourse more generally (Biber, 1988). The frequency of passive constructions was counted in all texts, and normalised by dividing the total number of passive verbs by the total number of verbal groups counted.

To investigate the variety of tense forms used by the groups, secondary tenses, that is tenses constructed from a main verb (predicator) and at least one auxiliary (the finite in

SFG terminology, Halliday and Matthiessen, 2004) such as the present progressive tense or the present perfect tense, were counted. Once again these absolute figures were divided by the total number of finite verbal groups in the text.

ii. STATISTICS

Table 7.9, below, presents the results of counts of the frequency of secondary tenses and passive voice.

Table 7.9: Complexity in verbal groups through secondary tense and passive voice

Feature	EIT Mean	LIT Mean	EMT Mean
Secondary tenses			
The Perfect Teacher	0.03	0.04	0.05
Park Letter	0.07	0.04	0.09
Robot Progress	0.15	0.11	0.16
Passive voice			
The Perfect Teacher	0.01	0.00	0.03
Park Letter	0.11	0.02	0.12
Robot Progress	0.05	0.05	0.13

iii. ANALYSIS

Secondary Tenses

The EIT group used a small range of secondary tenses including present progressive, present perfect simple (most frequently) and occasionally present perfect progressive, sometimes in combination with other constructions, such as passive voice and modal verbs: *...what they've been taught in class...(EI_KN Perfect Teacher)*; *...would be falling asleep...(EI_EN Perfect Teacher)*

Less proficient EIT writers continue to make errors in tense form: *There are some problem that we had inform you;* (EI_VN)

There is some evidence of developmental change in secondary tense use from LIT to EIT writers. On two out of three tasks, the EIT group used secondary tenses somewhat more frequently than LIT writers (see table 7.9). Tense use differed slightly in that there was some evidence that more proficient learners used more complex tense-aspect combinations. The present perfect continuous, for example, was used by two EIT writers but by no LIT writers.

There is notable variation of tense use within the LIT group. In less proficient LIT learners, secondary tenses are infrequent and usually inaccurate in form. In the writing of more proficient LIT writers, secondary tenses (present perfect simple and present progressive, occasionally past continuous) are used, though often with errors: *From this I've check the robot again; this program had been set for look after the kids* (error: had = has)(LI_TW)

Group means of the EMT group are slightly higher than the EIT group means for all three tasks (see table 7.9). The range of tenses used by EMT and the most proficient EIT writers is the same. The main difference between EMT and EIT learners is not in the frequency of secondary tenses but in the accuracy of form. Although the most proficient EIT writers have full control of both tense form and function, less proficient EIT writers made quite frequent errors in form.

Passive Voice

EIT writers exhibited evidence that they were beginning to control the form and the function of passive verbs. More proficient EIT writers used passives accurately in appropriate linguistic contexts: *...many mock-ups were destroyed due to the fact that they fell over; ...it is limited to household skills...*(EI_PN). For less proficient EIT writers, passives were used in appropriate linguistic contexts with some errors in form of the passive, or tense constructions with which passives were combined: *This robot are made to be use by every age; there was a wire which have been bitten by something* (EI_VN)

Some variation in the frequency of passives in the more proficient EIT writers seems to relate to the tenor assumed by the writer when approaching different tasks (see table 7.9, above). Most writers adopted a more involved style (see Biber, 1988, reviewed in chapter 3) with fewer passives; one, however, (EI_PN) adopted a less involved, more formal style with more frequent passives. A similar within-group trend could be recognized in the writing of the EMT group (see analysis of more involved versus less involved styles in section 7.10 below).

The use of passives is a significant point of contrast between the LIT and EIT groups both in terms of control of form and knowledge of how passives function in text. Less proficient LIT participants do not appear to have control of either the form or function of passive constructions. Though one or two instances of passive-like verb constructions do occur in the writing of less proficient LIT writers, the use of passives seems to be limited to certain constructions rather than being freely productive across a range of linguistic contexts:

Secondly, when robot are confuse with the task it will make a noisy sound.. (LI_EN Robot Progress). Here the construction may not represent a true passive verb form, but a predicate adjective post-modified by a prepositional phrase. More proficient LIT writers deploy passives in some appropriate contexts, though with errors in form: *This robot has been made like a people* (LI_PK)

Though both groups deployed passives infrequently, the overall picture is clear: passive verb forms are problematic for Late Immersion writers; Early Immersion writers are beginning to control both form and function of passives.

Group means for the EMT group are higher than the EIT group for all three tasks (see table 7.9): Perfect Teacher EMT=0.03 EIT=0.01, Park Letter EMT=0.13, EIT=0.11, Robot Progress EMT=0.13, EIT=0.05 (passive count/total verb groups). A further contrast is in the accuracy of passives in the writing of less-proficient EIT writers when compared to EMT writers. More proficient EIT writers are comparable to EMT in both the frequency with which passives are used, and the accuracy of form.

iv. SUMMARY – Passive verbs and secondary tenses

Table 7.10, below, summarises the results of the current section.

Table 7.10: Summary of results on secondary tense, passive voice, causative and phase constructions and adverbs within the verbal group

Resource of Language	Trends
Processes: Elaborated verbal groups Passive Voice	EIT writers used passives more frequently than LIT writers and with greater control of form. The EMT group used passives somewhat more frequently than the EIT group. The use of passives also varied within the EIT and EMT groups. The frequency of passives in the writing of more proficient EIT writers and EMT writers varied on the Robot Progress task in particular according to whether the writer adopted a more involved, “conversational” style or less involved, more abstract and formal style.
Secondary Tenses	EIT used secondary tenses slightly more frequently than the LIT group. The EIT group, and particularly the more proficient members of that group, used tenses much more accurately than their LIT peers. Less proficient EIT writers, however, continued to make errors in tense form. The EMT group used secondary tenses somewhat more frequently than the EIT group.

7.7 MODAL VERBS

i. EXPLANATION OF CATEGORIES AND MEASURES

Modal verbs represent an important resource for expanding the verbal group to express interpersonal meanings. Two major categories of modality, and modal verbs, are traditionally recognised, deontic and epistemic modality (Greenbaum and Quirk, 1998, pp. 57, Papafragou, 1998; Gibbs, 1990). Deontic modality relates to human control over events. Epistemic modality involves judgements of likelihood. SFG uses the terms modulation as broadly similar to deontic modality and modalization for epistemic modality (Halliday and Matthiessen, 2004, pp. 619). The systemic-functional category of modalization also includes *usuality*, where judgements of frequency are expressed through modal verbs:

1. It *might* cause accidents. (epistemic modality, modalization)
2. They *should* be more careful. (deontic modality, modulation)
3. He *can* be a little lazy. (modalization – usability, grouped with epistemic uses in the current study)

In the current study, frequency of modal verbs with a deontic function and an epistemic function were counted. In addition to modals used for deontic and epistemic functions, the counterfactual *would* was also counted.

The frequency of modal verbs of the categories outlined above were counted for each text and then divided by the total number of finite verbal groups, to enable comparison between texts of different length.

ii. STATISTICS

Table 7.11, below presents frequency counts for modal verbs.

Table 7.11: Statistics for modal verbs (Group means and p values for t tests comparing LIT and EMT writers to the EIT group)

Feature	EIT Mean	LIT Mean	EMT Mean
Deontic Modals			
The Perfect Teacher	0.27	0.22	0.14
Park Letter	0.13	0.18	0.12
Robot Progress	0.05	0.04	0.04
Epistemic Modals			
The Perfect Teacher	0.06	0.02	0.03
Park Letter	0.09	0.05	0.08
Robot Progress	0.01	0.01	0.04
Counterfactual <i>Would</i>			
The Perfect Teacher	0.13	0.00	0.09
Park Letter	0.09	0.02	0.03
Robot Progress	0.03	0.00	0.03

iii. ANALYSIS

Deontic modality in the verbal group

EIT writers used a limited range of modal verbs, predominantly *must* and *should*, to express deontic meanings. There are no marked differences in the frequency of deontic modal verbs between the two Thai groups. There is, however, evidence of important differences

in the use of deontic modals between Thai and EMT writers, at least on the Perfect Teacher task (see table 7.11, above). This is of interest in the light of the work by Hinkel (2002), reviewed in chapters 4 and 5. The group mean for the Perfect Teacher task is markedly higher for the EIT group than the EMT group (EIT=0.27, EMT=0.14). Group means for the other two tasks are similar. (Park Letter EMT=0.13, EIT=0.12, Robot Progress EIT=0.05, EMT=0.04). Four out of the five EIT texts on the Perfect Teacher task have high values for deontic modality, but a single text had no deontic modals. The issue of possible cultural influence on deontic modal verbs is discussed further in chapter 9, which examines the writing of Thais writing in Thai.

Epistemic modality in the verbal group

EIT writers expressed epistemic meanings through a limited range of modal verbs, predominantly *might* and *could*.

First of all, it is a good thing that skateboarding is no longer allowed on the paths because there's a very high chance that accidents might occur. For instance, if one person is running and the other person is skateboarding on the opposite direction, they might bump into each other and injured themselves.
(EI_KN Park Letter)

The EIT group deployed epistemic modals markedly more frequently than the LIT group on the Perfect Teacher (EIT=0.6 LIT=0.2) and Park Letter tasks (EIT=0.9 LIT=0.5) (see table 7.11, above). On the Robot Progress tasks, group means for epistemic modals were the same, but epistemic modals were used rarely by either group on this task. Overall, the results suggest that the EIT group have a more secure control over epistemic modals, though some more proficient LIT writers are beginning to use them:

If they play skateboard on the path, they may crash and hurt other people.(LI_TW)

Group means of modal verbs with an epistemic function (mostly *may*, *might* and *could*) for the Perfect Teacher and Park Letter task are higher for the EIT group than the EMT group (Perfect teacher EMT=0.03, EIT=0.06, Park Letter EMT= 0.08, EIT=0.09). On the Robot Progress task, the group mean for the EMT group was higher than that for the EIT group

(EMT=0.04, EIT=0.01). The function of epistemic modals deployed by some members of the EMT group in the Robot Progress task is subtly different to the way epistemic modals were used by EIT writers. Epistemic modals were used by EIT writers to assess the likelihood of predicted outcomes resulting from rule changes (see example above). On the Robot Progress task, some EMT writers also used epistemic modality to hedge statements about the current qualities of the Robot (e.g. *may seem hi tech...*) and claims about improvements to be made by the writer to the robot:

Although this robot may seem very high-tech already but there are improvements that could possibly be made. These are, to have a longer lasting battery or perhaps using a power from a renewable energy source such as the sun. This way, the robot won't waste as much power. And the robot could possibly have a store function to store the solar power in the day and use it during nighttime. (NE_3 Robot Progress)

This may contribute to the reversal of trends on the Robot Progress task, with EMT writers using epistemic modals slightly more frequently than EIT writers on this task. The EMT group also made more frequent use of nouns, adverbs and adjectives expressing epistemic modal functions that did the two Thai groups (see excerpts below in the section on complexity and mental processes).

The counterfactual *would*

The counterfactual *would* is used frequently by EIT writers:

...Secondly, a skateboard ramp would be really useful for the skateboarders because they can skate easier with the large space provided; How would you feel if you were to be kept on leads at all times? You wouldn't feel comfortable and so do dogs.. (EI_KN Park letter)

The EIT group used *would* more frequently on both the Perfect Teacher task and the Park Letter task, which provided an opportunity for participants to consider the hypothetical effects of proposed rule changes (see table 7.11, above). LIT writers rarely used counterfactual *would* on any tasks. This is therefore a marked difference between these two groups.

The group means for *would* are higher for the EIT group than for the EMT group on both the Perfect Teacher task (EIT=0.13, EMT=0.09) and the Park Letter task (EIT=0.09, EMT=0.03). The means were the same for the Robot Progress task (EMT=0.03, EIT=0.03). Use of the counterfactual *would* is examined further in the chapter focusing on Thai writing in Thai.

iv. SUMMARY - Modal verbs

Table 7.12, below, summarises the results of the current section.

Table 7.12: Summary of the results for modal verbs

Resource of Language	Trends
Processes: Elaborated verbal groups: Modal Verbs	
Deontic modal verbs	<p>EIT writers used deontic modal verbs somewhat more frequently than the LIT group on the Perfect Teacher and Robot Progress tasks, though the trend was reversed on the Park Letter task. There was some overlap between groups however.</p> <p>On the two tasks calling for overt persuasion, the Perfect Teacher and Park Letter tasks, the EIT group used modal verbs with a deontic function more frequently than did the EMT group. The difference was most pronounced on the Perfect Teacher task.</p>
Epistemic modal verbs	<p>EIT writers used epistemic modal verbs more frequently than LIT writers, though there is some overlap between groups. Less proficient LIT writers rarely used modal verbs with an epistemic function at all (1 instance in 6 texts).</p> <p>The EIT group used epistemic modals somewhat more frequently than the EMT group on the Perfect Teacher and Park Letter tasks. On the Robot Progress task, where modals with an epistemic function were used relatively infrequently by all groups, this trend was reversed. This may result from the different functions of epistemic modality used on these tasks. On the Perfect teacher and the Park Letter task, epistemic modals were primarily deployed to modify the likelihood of the outcome of events. On the Robot Progress task, some EMT writers used epistemic modals to hedge factual statements about the present state of affairs.</p>
Counterfactual <i>would</i>	<p>The EIT group used <i>would</i> more frequently than the EMT group. On the Park Letter task, the EIT group appeared to use <i>would</i> in some contexts in which EMT writers preferred <i>will</i>.</p> <p>The EIT group used the counterfactual <i>would</i> frequently, particularly in the Park Letter task, which provided opportunities to speculate about the outcome of proposed rule changes. The LIT did not use <i>would</i> to any extent (a single instance in all texts examined).</p>

It is worth noting that genre exerts a significant influence on the lexicogrammatical resources deployed by participants and effects the variation in resource deployment between groups. On the Perfect Teacher task and Park Letter task, which both called for an element of persuasion, there was a good deal of overlap and similarity in the way lexicogrammatical resources were used and the trends between groups. On the Robot Progress task, in contrast, which foregrounded the experiential rather than the interpersonal meta-function, the patterns between groups were somewhat different. For example, EIT writers used epistemic modal verbs more frequently than EMT writers on the Park Letter and Perfect Teacher tasks, but on the Robot Progress task the trend was reversed.

7.8 THE THEMATIC ADJUNCT SLOT

i. EXPLANATION OF CATEGORIES AND MEASURES

The current study is particularly concerned with the development of language knowledge that may enable a writer to communicate flexibly and appropriately in a range of contexts, but most particularly in the “registers of schooling” (Cummins, 2000). In chapter 2, one of the characteristics identified in highly valued texts written by A’ level examination candidates in English (Meyer, 2008) was interpersonal Themes. In SFL, the Theme is defined as “the first group or phrase that has some function in the experiential structure of the clause.” (Halliday and Matthiessen, 2004, pp.66). The elements most likely to occur as theme are the nominal group functioning as subject in the clause, or any circumstantial element present. However, these are not the only options available. The example in table 7.13 below, clarifies this point.

Table 7.13: Textual, interpersonal and topical themes

On the other hand Obviously Bob			ate lunch at 2 o'clock.
Textual theme	Interpersonal theme	Topical theme	
Theme			Rheme

In this example, the first element in the experiential structure of the clause is preceded by two other elements, a conjunction (on the other hand) and a modal adverb (obviously). These three elements constitute a complex theme, which includes a textual and an interpersonal element as well as the topical theme that must, by definition, be present. Complex themes, and particularly themes incorporating interpersonal elements, are indicative of advanced writing skills (Meyer,2008). The current study examines elements placed in the thematic adjunct column, prior to the subject of the clause. This is illustrated by the examples in figure 7.1 below, which were drawn from the corpus of the study.

Interpersonal adjunct (Interpersonal Theme)

SUB-ORINATOR	LINKING CONJUNCTION	ADJUNCT	NOUN GROUP	VERB GROUP	SUBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
		Personally	my perfect teacher	has to be		well rounded, with charisma and enthusiasm to top it off.

(NE1_perfectteacher)

Conjunction (Textual theme)

SUB-ORINATOR	LINKING CONJUNCTION	ADJUNCT	NOUN GROUP	VERB GROUP	SUBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
		On the other hand	There	Are	those who set homework for no good reason.	

(NE1_perfectteacher)

Figure 7.1: Examples of interpersonal and textual themes from the study

Adjuncts functioning as elements in the theme were classified as interpersonal, textual (cohesive conjunctions), circumstantial or complex (a combination of two or more of the three categories). Counts were made for each text, and were divided by the total number of t units in the text to enable comparison of texts of different length.

ii. STATISTICS

Table 7.14, below, presents frequency counts for features in the thematic adjunct slot.

Table 7.14: Statistics for the thematic adjunct slot

Feature	EIT Mean	LIT Mean	EMT Mean
Cohesive Conjunctions			
The Perfect Teacher	0.34	0.39	0.17
Park Letter	0.27	0.31	0.18
Robot Progress	0.27	0.42	0.18
Circumstances			
The Perfect Teacher	0.05	0.03	0.05
Park Letter	0.02	0.01	0.09
Robot Progress	0.05	0.05	0.05
Interpersonal adverbs			
The Perfect Teacher	0.14	0.02	0.09
Park Letter	0.05	0.04	0.06
Robot Progress	0.03	0.04	0.02
Complex (a combination of two or more of the above)			
The Perfect Teacher	0.04	0.01	0.03
Park Letter	0.01	0.01	0.02
Robot Progress	0.00	0.00	0.01
Total			
The Perfect Teacher	0.57	0.46	0.33
Park Letter	0.36	0.36	0.35
Robot Progress	0.35	0.50	0.17

iii. ANALYSIS

EIT writers used a range of conjunctions to express additive, adversative, temporal sequence, exemplifying, concluding and consequence relations: *in addition, furthermore, on the other hand, however, firstly, for example, for instance, in conclusion, as a result.*

Interpersonal adverbs were occasionally placed in this clause slot, particularly on the

Perfect Teacher task: *Most importantly, teachers must be calm...* (EI_EN)

LIT writers placed cohesive conjunctions in the thematic adjunct slot more frequently than the EIT group on all the tasks (see table 7.14, above):

Firstly, some students said that the perfect teacher should be kind and be nice to the student, so the students would like them. *Moreover*, some said that teachers should listen to their students more. *Furthermore*, some of the students also says that the teacher shouldn't be too strict and shouldn't give out a lot of homework. *Also*, perfect teachers should have a nice looking face, so the student will have more concentrate at them more than look outside the class window. (LI_TW Perfect Teacher)

The EIT group placed circumstances and interpersonal adjuncts in this clause slot more frequently than writers in the LIT group, though circumstances and interpersonal adverbials were relatively infrequent in the writing of both groups. Examples of interpersonal adverbials used by LIT writers include *suddenly* and *for sure*.

The EMT group used cohesive conjunctions less frequently than the EIT group. This is therefore a quite marked difference between these groups on this measure.

iv. SUMMARY – The thematic adjunct slot

Table 7.15, below, summarises the results of this section.

Table 7.15: Summary of results for the thematic adjunct slot

Resource of Language	Trends
Thematic adjunct slot:	<p>LIT writers use cohesive conjunctions more frequently than EIT writers. The EIT group use cohesive conjunctions more frequently than EMT writers.</p> <p>EIT writers deploy circumstances and interpersonal adverbs in the thematic adjunct slot more frequently than LIT writers.</p>

7.9 CLAUSE COMPLEXES, EXPANSION, PROJECTION AND COMPLEXITY

i. EXPLANATION OF GRAMMATICAL CATEGORIES AND MEASURES

Clause Complexes and the Division of T Units

The current study looks at both the frequency of clause nexuses in the writing of participants, and the logical relationships between these clauses. The approach draws upon SFG (Halliday and Matthiessen, 2004, see chapter 2). The study differentiates between two broad categories of clause complex: clause relations involving expansion (traditional coordinate and subordinate clauses) and clause relations involving projection through mental and verbal processes (see chapter 2 for further explanation, and the example in figure 7.5 below).

In order to make quantitative comparisons of the resources deployed by students in their writing, it is necessary to divide texts into smaller units in a consistent manner. In the

literature, the t unit has been used in research into the later language development of native speakers (Crowhurst, 1980) and occasionally the development of complexity in second language writing (Larsen-Freeman, 2006). A t unit is defined as a main clause plus any subordinate clauses attached to it or embedded within it (Crowhurst, 1980; Larsen-Freeman, 2006). This unit enables texts to be subdivided consistently and complexity to be compared quantitatively.

Figures 7.2 and 7.3, below show how text segments can be divided into t units. In figure 7.2, (I) and (II) are clause complexes that comprise single t units. The square brackets illustrate the nesting of clauses within clauses. In the first example, clauses 2 to 5 are all subordinate to clause 1. It should be noted that, within this clause complex, clauses 4 and 5 are of equal rank, and linked paratactically using the terminology of Halliday and Matthiessen (2004). A point to note is that not every paratactic link marks a t unit break, since a paratactic nexus may be nested within another structure, as is the case in (I). In figure 7.3, by contrast, a clause complex has been divided into two t units. Here, clause 1) and 2) form a unit of equal rank to clause (3.

Clause complexes forming single T Units

- I. [1 On the other hand, it is important [2 that teachers are strict [3 because [4 if students play around [5 and don't listen to teachers 5] 4] , teachers should be strick. 3] 2]1] (EI_KN)
- II. [1 Moreover, student say [2 that teacher should be their friend [3 when they are lonely [4 and don't have people to help 4] 3] [5 because this will make student think [6 this teacher is like their parents. 6] 5] 2] 1] (LI_PK).

Figure 7.2: Clause complexes forming single t units

Clause Complex divided into more than one T Unit

[1 They can't remember [2 what they've been taught in class 2] 1] // [3 and therefore, their test results would be low.3]

(EI_KN)

Figure 7.3: A clause complex divided into more than one t unit.

In order to compare the resources used by participants in their writing, the number of clauses per t unit was calculated for each text. In addition to this overall figure for complexity, data on the variety of resources deployed by participants was also collected by counting and classifying the subordinators used.

The single t unit in figure 7.2 is shown in the format used in the study to facilitate the counting of features below in figure 7.4. Figure 7.5 gives an example of hypotactic projection. In order to compare resources between texts, the average number of clauses per t unit was calculated for each text. In addition, the subordinators used by participants were classified and counted.

SUB-ORINATOR	LINKING CONJUNCTION	ADJUNCT	NOUN GROUP	VERB GROUP	SUBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
		On the other hand	It	Is		important that teachers are strick
because if			Students	play		around
	And			don't listen		to teachers
			Teachers	should be		strick.

(EI_KN PERFECT TEACHER)

Figure 7.4: Clause complex in the column format used in the study to enable the counting of features

SUB-ORINATOR	LINKING CONJUNCTION	ADJUNCT	NOUN GROUP	VERB GROUP	SUBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
			Some students	say		
that			perfect teacher	should set	lots of homework	

(EI_KN PERFECT TEACHER)

Figure 7.5: Example of hypotactic projection

The categories of conjunctions used in the study are presented in table 7.16 below.

Table 7.16: Categories of subordinator

Categories	Examples of subordinators
Expansion	
<u>Consequence</u>	
Cause	because, since
Condition	If, unless
Means	By
Purpose	In order to, so that
Concession	Although
Time	When
Elaboration (non-defining relative clauses)	Which
Contrast/addition	Besides whereas as well as
Projection	that, Wh- words

Frequency counts of each category were made for all texts. The numbers were divided by the total number of t units in a text in order to enable comparison between texts. The frequency of conjunctions (and, so, but, or) was also counted and divided by total number of t units.

In addition to counts of projection markers such as *that*, projection was investigated through counts of mental (verbs of thinking and feeling, see chapter 2) and verbal processes (verbs of saying). The frequency of these verbs was counted and divided by the total number of verbal groups involved in the count.

ii. STATISTICS

Tables 7.17, 7.18 and 7.19 present frequency counts for overall complexity (table 7.17) and the resources for clause complexes involving expansion (table 7.18) and projection (table 7.19)

Table 7.17: Statistics for overall complexity

Feature	EIT Mean	LIT Mean	EMT Mean
Complexity – clauses per t unit			
The Perfect Teacher	2.16	2.34	2.22
Park Letter	2.21	2.20	2.29
Robot Progress	1.96	1.96	1.87

Table 7.18: Statistics for clause complexes involving expansion

Feature	EIT Mean	LIT Mean	EMT Mean
Because			
The Perfect Teacher	0.05	0.13	0.02
Park Letter	0.12	0.16	0.03
Robot Progress	0.02	0.13	0.02
Other cause conjunctions			
The Perfect Teacher	0.04	0.00	0.03
Park Letter	0.01	0.00	0.12
Robot Progress	0.01	0.00	0.02
Total consequence			
The Perfect Teacher	0.28	0.32	0.18
Park Letter	0.27	0.34	0.25
Robot Progress	0.22	0.14	0.14
Total time			
The Perfect Teacher	0.03	0.05	0.08
Park Letter	0.03	0.02	0.05
Robot Progress	0.11	0.07	0.06
Total concession			
The Perfect Teacher	0.01	0.00	0.03
Park Letter	0.01	0.00	0.03
Robot Progress	0.03	0.01	0.02
Other conjunctions			
The Perfect Teacher	0.01	0.02	0.03
Park Letter	0.00	0.00	0.07
Robot Progress	0.10	0.02	0.06
Total parataxis (and, so, but, or)			
The Perfect Teacher	0.22	0.22	0.25
Park Letter	0.30	0.35	0.22
Robot Progress	0.20	0.25	0.21

Table 7.19: Statistics for clause complexes involving projection

Feature	EIT Mean	LIT Mean	EMT Mean
Mental Processes			
Overall			
The Perfect Teacher	0.21	0.20	0.22
Park Letter	0.18	0.21	0.19
Robot Progress	0.07	0.07	0.09
Think			
The Perfect Teacher	0.02	0.07	0.02
Park Letter	0.05	0.13	0.02
Robot Progress	0.02	0.01	0.01
Other Cognitive Processes			
The Perfect Teacher	0.09	0.03	0.07
Park Letter	0.02	0.04	0.08
Robot Progress	0.01	0.03	0.04
Verbal Processes			
The Perfect Teacher	0.05	0.09	0.08
Park Letter	0.08	0.01	0.08
Robot Progress	0.02	0.04	0.04
that projection			
The Perfect Teacher	0.13	0.28	0.11
Park Letter	0.16	0.14	0.12
Robot Progress	0.03	0.01	0.05
Total projection markers			
The Perfect Teacher	0.16	0.35	0.13
Park Letter	0.16	0.19	0.15
Robot Progress	0.04	0.03	0.06

iii. ANALYSIS

Hypotactic Expansion

In EIT writing, cause, means, condition, purpose and time clauses occur frequently with common binding conjunctions: *because, by, if, to, when*. Non-finite “verbing” clauses with prepositions are formed accurately: *We deal with the water problem by adding water prove layer to the robot’s outer shell* (EI_EN). Non-restrictive relative clauses with *which* were used to elaborate, occasionally without full control of form in the subordinate clause: *This make the robot mute, which they will only make sound when they talk with human* (EI_VN)

In the texts of more proficient EIT writers, a slightly wider range of binding conjunctions was used: *because, by, if, to, when, although, even though*. Subordinate clauses for functions such as addition and contrast were also occasionally used: *which stops water from reaching the sensitive computer sections as well as making the RH-1 more resistant to impacts*.(EI_PN) Subordinate clauses were often foregrounded to build cohesion: *To reduce the noise level*

produced, we have coated the internal mechanism with high quality rubber.(EI_PN) Notions such as causation were sometimes expressed through prepositional phrases: ...many mock-ups were destroyed due to the fact that they fell over...(EI_PN)

LIT writers exhibit control of a basic set of subordinating conjunctions, but were more limited in the range of conjunctions at their disposal than EIT writers: *because, by, if, to, when*. In clauses expressing causal relations, *because* was used by LIT writers markedly more frequently than by EIT writers (see table 7.18, above). In addition, the EIT group used some causal conjunctions (e.g. *since, as, due to + non-finite clause*), which the LIT group did not use at all. Another difference is that non-finite ‘verbing’ clauses with prepositions, when used, were often formed incorrectly by LIT writers: *Perfect teacher should understand what student are thinking by they just speak a few word*. (LI_EN) Even more proficient LIT writers also formed these non-finite clauses incorrectly, though they tended to use the bare infinitive rather than a clause with a subject:.. *have try another way by make the two surfaces of the joints more smoother...*(LI_TW) More proficient LIT writers also occasionally used non-restrictive relative clauses with *which*: *Secondly, when the robot move it made an annoying noise which quite disturb people*.(LI_PG)

The main difference between EIT and EMT writers was, once again, in the variety of conjunctions used rather than their overall frequency. The EMT group used fewer consequence clauses on the Perfect Teacher and Park Letter tasks. Notably, the EIT group used *because* more frequently than the EMT group on the Perfect Teacher and Park Letter tasks (see table 7.18, above). Moreover, EMT writers used a wider range of conjunctions marking other logical relations, including more frequent use of concession clauses. The frequency of “other hypotactic conjunctions” is higher for the EMT group on the Perfect Teacher and Park Letter tasks. On the Robot Progress task, EIT writers, as a group, used “other conjunctions” more frequently than the EMT group, but the relatively high frequency was due to the frequent use of the elaborating *which*.

Paratactic Expansion (and, or, but, so)

Total paratactic conjunctions for the three tasks varied from 0.20 to 0.30 per t unit on the three tasks in EIT writing. Frequency of paratactic markers in LIT texts was similar to that seen in the EIT texts. Group means for the EMT group were similar to those for the EIT group.

Projection

Hypotactic projection markers, most commonly *that*, are frequent in EIT writing, with a limited range of common mental and verbal processes (*think, believe, understand, say*). EIT writers used mental processes to explicitly source attitudes to the writer or others: *I believe **that** most student would choose teacher who gives them less homework (EI_EN)*, and occasionally to express degrees of likelihood through interpersonal grammatical metaphor (hedging and boosting): *If this can happen I **bet** all students would be totally enjoy their lesson (EI_EN)*. As the preceding example demonstrates, *that* or other markers of projection, are not necessarily obligatory in these clause complexes.

Patterns of projection markers and mental and verbal processes in LIT writing were similar in some respects to their EIT peers. LIT writers used a limited range of mental and verbal processes quite frequently to explicitly source attitudes to the writer or others (e.g. *I think...*). Overall frequency of mental processes was similar to the EIT group. However, it is notable that the LIT group used a more limited range of mental and verbal processes, and made particularly frequent use of *think* to explicitly mark the source attitudes (see table 7.19, above).

Patterns of use by the EMT group do not depart markedly from those in the EIT group in terms of overall frequencies of use. Group means for markers of projection, including *that* and *wh*- words, were slightly lower for the EMT group than the EIT group on the Perfect Teacher and Park Letter tasks. The trend was reversed on the Robot Progress task, though few projection clauses were deployed by either group on that task.

The main difference between the EIT and EMT groups is that some members of the EMT group used a wider range of mental verbs as interpersonal grammatical metaphor, where mental and verbal processes express degrees of commitment to attitudes expressed:

The topic I first wish to discuss is the skateboard ramp being built on the grassed area. If this proposal were to go through and become a reality, **I doubt** it would be a turn for the best. While **I do admit** that grass will act as a better buffer zone in the event of an impact (as oppose to concrete). On the other hand, **I feel** it will bring several new problems. (NE_3 Park Letter)

In these examples, the writer is not simply labelling the source of attitudes but is positioning himself in relation to the propositions that follow and expressing notions of epistemic modality through mental and verbal processes.

Overall Complexity and variations in the function of dependent clauses between groups

On average, one or more embedded or subordinate clause was deployed with each main clause by the EIT group on the Perfect Teacher and Park Letter tasks. On the Robot Progress task, t units were, on average, slightly below 2 clauses in length. Overall complexity in clauses per t unit was similar for the LIT group and the EMT group. This is perhaps counterintuitive since research into the development of both first and second language proficiency has tended to demonstrate a gradual increase in complexity as learners develop (e.g. Crowhurst, 1980; Larsen-Freeman, 2006). To understand this result it is necessary to investigate the grammatical function of dependent clauses used by writers from the three groups. As this calculation of overall complexity is calculated by dividing total clauses by the total number of t units, it includes other varieties of dependent clause, notably nominal clauses functioning as participants in other clauses, and relative clauses. Figure 7.6 below shows that the LIT group used slightly more clauses per t unit than either of the other groups on the Perfect Teacher task.



Figure 7.6: Complexity in clauses per t unit on the Perfect Teacher task

Comparing two texts by writers from the groups with the greatest contrast in language knowledge, the LIT and EMT groups, on measures of overall complexity, frequency of subordinators and complexity of noun groups is revealing in demonstrating the way the source of grammatical complexity varies between groups, and changes in resources that take place with the development of language knowledge (see figure 7.7, below).

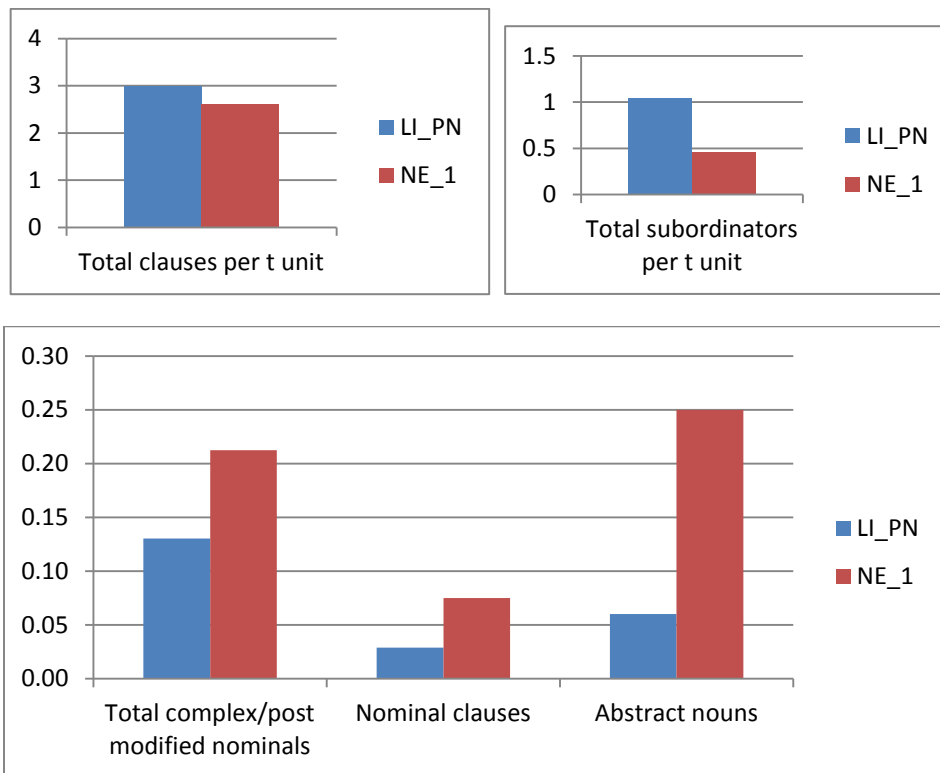


Figure 7.7: The relative frequency of some components of complexity, and abstract nouns, in an LIT text (LI_PG) to an EMT text (NE_1) on the Perfect Teacher task

Overall, the complexity of the LIT text, as measured in terms of total clauses per t unit, is slightly greater than the EMT text. However, the frequency of subordinators is approximately twice as high in the LIT as in the EMT text. The explanation for this apparent

contradiction is that the EMT writer does not always mark projection with a subordinator such as *that* (see example 5 above), and more crucially, the EMT writer uses more embedded dependent clauses, such as relative clauses embedded in noun groups, and more nominal clauses as participants in relational clauses of identity.

iv. SUMMARY – Clause complexes

Table 7.20, below, summarises the results of the current section on clause complexes.

Table 7.20: Summary of results for clause complexes

Resource of Language	Trends
<p>Above the clause:</p> <p>Expansion and Projection</p>	<p>The Late Immersion Thai group used hypotactic expansion and projection more frequently than the other two groups on tasks involving overt persuasion. In particular, this group made frequent use of <i>because</i> to express both causality and to link an assertion to its evidence base, and also markers of projection following mental verbs of cognition, particularly <i>think</i> and <i>believe</i>.</p> <p>Certain markers of expansion and projection showed very clear trends differentiating the three groups. For example, <i>because</i> was most frequent in the writing of the LIT group and least frequent in the writing of the EMT group. A related trend in the variety of markers of expansion can be recognised, with the EMT group using a more varied range of conjunctions than the Thai groups.</p> <p>Some members of the EMT group used a wider range of mental verbs than the EIT group, some of which functioned as interpersonal grammatical metaphor, where mental and verbal processes expressed degrees of commitment to the attitudes expressed.</p>
Complexity	<p>LIT writing was as complex as, and in some cases more complex than the writing of the EIT and EMT groups. However, the underlying features contributing to the complexity in LIT writers' texts were somewhat different to those of the more proficient EIT writers and the EMT group. LIT writers made frequent use of projection through a limited range of mental and verbal processes (e.g. <i>think</i>, <i>believe</i>), a limited range of causative verbs (<i>make</i>, <i>help</i>, <i>let</i>), and a limited range of expansion markers, particularly <i>because</i>. In contrast, nominal clauses and relative constructions were a more important component in the complexity of some writers in the EMT and, to a certain extent, the EIT group. These writers used fewer clauses of expansion and projection, and more complex subjects and objects.</p>

7.10 LEXICOGRAMMAR AND DISCOURSE

The current chapter has presented examples of text alongside statistics in order to elaborate on and clarify patterns of lexicogrammatical usage identified through statistical

methods. The presentation of statistics is considered an important strand of evidence from which a picture of variation between groups may be revealed, but it is clear that numbers alone are not sufficient. The frequency of lexicogrammatical items and constructions reflects complex factors. To better understand these patterns and the factors that gave rise to them, it is helpful to examine how lexicogrammar functions within text. This section examines two patterns of lexicogrammar at text level:

- the variation from more involved, interactive discourse to less involved, more abstract discourse (Biber, 1988, discussed in chapter 3);
- the expression of attitude through the system of Appraisal (Martin and Rose, 2007, discussed in chapter 2).

The first point brings together a number of the features identified in the current chapter as varying between groups of writers and examines how these lexicogrammatical features affect the overall nature of the text. The second focuses on how writers use the resources of English to express attitudes, presenting statistics on the use of adjectives in the predicative position and examining how the use of the relatively high frequency of these adjectives in the writing of the Thai Immersion groups can be explained in terms of the expression of attitudes within discourse.

i. More involved interactive discourse vs less involved, abstract discourse

Overall patterns of lexicogrammatical variation between groups highlighted in the current chapter are concordant with some key contrasts identified in the dimensions of variation in English text identified by Biber (1988) and discussed in chapter 3. Specifically, Thai writers, when compared to many, though not all, EMT writers, used fewer abstract nouns, dense, post-modified nominal groups, and passive verbs, and more personal pronouns, simple nominal groups and active verbs. These patterns reflect a contrast in the overall style of text from more involved, interactive discourse with characteristics somewhat similar to informal conversation to less involved, more informationally dense and abstract discourse (see dimensions 1,3 and 5 in Biber, 1988, discussed in chapter 3).

The following excerpt (Figure 7.8) is taken from an EMT writer's response to the Perfect Teacher task.

SUBORDINATOR	LINKING CONJUNCTION	ADJUNCT	SUBJECT NOUN GROUP	VERB GROUP	OBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
			Another positive factor of a teacher	is	them listening to their students and being able to understand them and give elidgable advice.	
When			students	talk to	their teachers	about their various problems,
			I	am		sure
that			the teacher	always has	a sense of nostalgia	
	and			remembers		
when			he or she	were		in the same position.
			Having a grown up to help you through school life when you need it	is		truly amazing, much better than a hard and unemotional person.

Figure 7.8: Text excerpt exemplifying clause participants in an EMT text for the Perfect Teacher task (NE_1)

This brief excerpt includes complex participants placed in subject slots and linked to complements with the verb BE:

- 1) *Another positive factor of a teacher is them listening to their students and being able to understand them and give elidgable advice.*

Here, the subject of the clause includes an abstract head noun *factor*, which is pre-modified by a deictic element, *another*, and an epithet, *positive*. The clause involves logical grammatical metaphor in that it serves to make an internal conjunctive link of addition between the clause and the preceding text. The participant linked to this clause by the relating process BE is a non-finite nominal clause. The complex grammar deployed by the writer enables him to discuss and evaluate the qualities of a perfect teacher by making a classroom behaviour into a Thing by virtue of a nominal clause (*...them listening to their students...*).

Comparing this extract to the following (Figure 7.9), written by an EIT participant highlights how grammatical resources vary between the Thai and EMT groups, and how these variations influence the construal of meanings.

SUBORDINATOR	LINKING CONJUNCTION	ADJUNCT	SUBJECT NOUN GROUP	VERB GROUP	OBJECT/COMPLEMENT NOUN GROUP	ADJUNCT OR PREDICATIVE ADJECTIVE GROUP
		In addition,	teachers	should listen to	their students' opinion and point	
	and			give	help	
if			they	can.		
			They	should kind of be		like friends to their students
	but	still	they.	need to control of	their students	
If			this	can happen		
			I	bet		
			all students	would be totally enjoy	their lesson.	

Figure 7.9: Text excerpt exemplifying clause participants in an EIT text (EI_EN)

In this excerpt, most participants in the subject slot are single words, either personal pronouns or, in one instance, a demonstrative (this). Rather than, as in the previous example, discussing the qualities of a perfect teacher by evaluating actions expressed as a nominal clause, the writer uses simple the modal verb *should* following simple participants (teachers, they) to express his idea of desirable behaviour. In other words, the first example by the EMT writer operates at a higher level of abstraction through the deployment of grammatical metaphor, both experiential and logical: Actions become Things, participants in clauses that can be evaluated; meanings are condensed and options for the management of information flow and cohesion are more varied.

Similar patterns of usage occur in responses to the Robot Progress prompt. In general, the EMT group deployed more complex participants than the Thai writers of either group. Meanings in such texts tend to migrate from processes into the nominal group. Verbal

groups increasingly serve to link these complex participants together rather than expressing “goings on”, as they tend to do in the texts of Thai writers, both early and Late Immersion.

An example of this can be seen in the following clause:

Another improvement that should be made is to develop a joblist programme within the robot.(NE_3 Robot Progress)

The subject to this clause is the nominalization *improvement*. Using this nominalization in conjunction with the deictic element *another* enables the writer to effectively structure the discourse by labelling movement to a new topic. There is some within-group variation in the frequency with which such complex, abstract participants were deployed by EMT writers. However, a majority of EMT writers (3 out of 5) adopted a noticeably more formal, abstract style on the Robot Progress task. Thai writers, in contrast, invariably tended to produce the more involved style. Only one Thai writer out of a total of 10 comprising the EIT and LIT groups (EI_PN) adopted a highly formal style in his response to the Robot Progress task.

ii. The expression of attitudes

A second pattern revealed through counts of lexicogrammatical features, but which can best be understood through descriptive analysis of discourse, relates to the way attitudes are communicated by writers. A pattern identified in some previous research comparing the writing of native English speakers and writers with ESL (e.g. Hinkel, 2002, discussed in chapter 4) is the relatively frequent occurrence of predicative adjectives in ESL writing. Adjectives are one of the resources available for expressing attitudes, part of the Appraisal system discussed in chapter 2 (Martin and Rose, 2007). Table 7.21 below presents statistics for the frequency of adjectives in the predicative position on the three texts in the current study.

Table 7.21: Statistics for predicative adjectives

Feature	EIT Mean	LIT Mean	EMT Mean
Adjectives in the predicative position (total count/total clauses)			
The Perfect Teacher	0.32	0.16	0.18
Park Letter	0.17	0.16	0.08
Robot Progress	0.09	0.12	0.09

The EMT group deployed adjectives in the predicative position (carrier-attribute clauses) markedly less frequently than the EIT group on the Perfect Teacher and Park Letter tasks, the two tasks involving an element of overt persuasion. The difference in the frequency of adjectives in carrier-attribute clauses appears to relate to differences in the range of resources available to writers to express attitudes and also to the approach taken by writers to argumentation. Comparing the two excerpts below, from the Park Letter task illustrates this.

EMT Text Excerpt – Park Letter task

In your public notice, you suggest that because of safety concerns, you are going to build your skateboarding ramp in a secluded grass area, which I guess will be a fair distance from the pathways around the park. I agree, yes, building the ramp on a softer grass area will mean that when the skateboarder land a 'move', they may not risk injury as concrete areas may, but, if I may add to this, building a ramp also brings other threats such as - the wheels of a skateboard are not designed to be able to ride on some surfaces including grass. The wheels of the skateboard grip with the grass, and it continues to get stuck in the wheels causing a fall. This can pose as a threat to any skateboarders who may take a large jump, land and have their wheels get stuck, leading to a serious fall in some imagined cases. So, to conclude, the grass may cushion some falls but also it may and most likely cause a fatal injury. (NE_2)

Here, argumentation is almost entirely logical in that it deals with the potential effects of grass and concrete surfaces on skateboarders. The writer expresses Value implicitly:

1. *...building a ramp also brings other threats*

In this clause, a negative view of the ramp is implied by referring to “threats”.

Comparing this paragraph to the following paragraph addressing similar subject matter, written by an EIT participant, is instructive:

First of all, *it is a good thing that skateboarding is no longer allowed on the paths* because *there's a very high chance that accidents might occur*. For instance, if one person is running and the other person is skateboarding on the opposite direction, they might bump into each other and injured themselves. Secondly, *a skateboard ramp would be really useful for the skateboarders* because they can skate easier with the large space provided and it will also prevent accidents from happening. (EI_KN Park Letter)

The paragraph includes explicit expressions of Value through adjectives in the predicative position:

1. *a skateboard ramp would be **really useful** for the skateboarders*

There is also an adjective expressing Value as an Epithet in a noun group:

2. *it is a **good** thing that skateboarding is no longer allowed on the paths*

In the Thai text, explicit expression of Value is used to present generalizations evaluating potential park rule changes. These generalizations are then supported through logical argument. Thus, Thai writers such as this deploy adjectives relatively frequently when compared to EMT writers by virtue of the more frequent explicit expression of Value in their writing. Similar patterns of usage occur in the Perfect Teacher responses.

iii. SUMMARY – Lexicogrammar and Discourse

Table 7.22, below, summarises the results of the current section.

Table 7.22: Summary of lexicogrammar and discourse

	Trends
More involved interactive discourse vs less involved, abstract discourse	Compared to Thai writers, most, though not all, EMT writers adopted a less involved, more formal style characterized by features such as the relatively frequent use of complex noun groups and relating processes forming identifying clauses, the more frequent use of passive voice and the relatively infrequent use of personal pronouns in the subject slot. Only one Thai writer out of a total of 10 comprising the EIT and LIT groups used a highly formal style. All LIT writers produced the more involved style.
The expression of attitudes	On both the Park Letter and Perfect Teacher tasks, which include an element of explicit persuasion, Thai writers tended to deploy adjectives in carrier-attribute clauses more frequently than the EMT group. The difference in frequency of adjectives in texts by Thai immersion writers compared to English mother tongue writers can be attributed to a combination of a greater range of resources for expressing attitudes in the repertoires of EMT writers, and the way Thai writers used adjectives to express Value more explicitly.

7.11 ERROR ANALYSIS

i. EXPLANATION OF CATEGORIES AND MEASURES

Errors in the broadest sense may include errors of form or of function, and errors of function can include a clear error of semantic mismatch between the lexicogrammatical item and how it has been used, or more subtle issues involving the pragmatic knowledge of such things as context appropriateness, where, for example, a vocabulary item or construction is inconsistent with the tenor of the text. In the current study, the error analysis focuses on a restricted range of error categories involving morphology and syntax. The error categories were chosen both due to their frequency in the writing of participants, but also as they represent persistent categories of error in second language writing of the kind that may become ‘fossilised’ (Han, 2003), where learner language seems to fail to progress towards target language norms despite “continuous exposure to input and opportunity to practice” (Han, 2003, pp. 96). In French and English Immersion education in Canada, learners experience similar problems with certain aspects of morphology and

syntax (Harley et al. 1990; de Bot, Lowrie and Verspoor, 2005; Lightbown, 2000). Although the overall focus of the current study is on the resources used by learners rather than the errors they make, the presence of non-target-like forms in Thai Immersion writing is a salient feature of their texts, and error frequency is a key feature distinguishing Early from Late Immersion writing (Woodward, 2008). Student errors therefore warrant attention in the study.

Table 7.23: Error categories investigated in the study

Error category	Examples
Verbal Group Errors Tense form or function Agreement errors Omission of BE Verb form (other than tense)	He <u>was go</u> there yesterday. She <u>live</u> in Thailand. They <u> </u> interested. They could improve by <u>build</u> a skateboard ramp.
Noun group errors Error with article or other determiner Error with singular/plural marking	I like <u>the</u> bananas. (used to talk generically) <u>Dog</u> should be kept on leads.

The frequency of selected error categories was also counted (see table 7.23, above). The frequency of each error category was calculated per t unit in order to compare texts of different length. In addition the density of errors within the whole texts was also calculated by counting the proportion of error free t units, the proportion of t units with only a single error, and the proportion with multiple errors.

The quantitative error analysis presented here focuses on the two Thai groups writing in English only. Errors of morphology and syntax are seen as a characteristic of ESL development, and although it is certainly true that English mother tongue writers may also produce errors in their writing, these tend to be qualitatively different to those of ESL learners, reflecting non-standard usage rather than language development (Cameron, 2003). A study of grammatical errors made by the EMT group, though interesting, therefore goes beyond the focus of the current study on the development of language in the two Thai immersion groups.

ii. STATISTICS

Table 7.24, below, presents statistics for the frequency of the error categories described above.

Table 7.24: Statistics for errors (Group means and p values for t tests comparing LIT writers to the EIT group)

Feature	EIT Mean	LIT Mean
Proportion of t units with no errors		
The Perfect Teacher	0.59	0.27
Park Letter	0.56	0.20
Robot Progress	0.64	0.20
Proportion of t Units with multiple errors		
The Perfect Teacher	0.10	0.45
Park Letter	0.20	0.44
Robot Progress	0.16	0.38
Present tense agreement errors		
The Perfect Teacher	0.08	0.09
Park Letter	0.06	0.15
Robot Progress	0.05	0.22
Tense form or function errors		
The Perfect Teacher	0.00	0.06
Park Letter	0.05	0.10
Robot Progress	0.09	0.18
Other verb form errors		
The Perfect Teacher	0.03	0.06
Park Letter	0.02	0.18
Robot Progress	0.05	0.07
Omission of BE		
The Perfect Teacher	0.01	0.11
Park Letter	0.00	0.09
Robot Progress	0.00	0.03
Plural noun inflection errors		
The Perfect Teacher	0.11	0.37
Park Letter	0.16	0.24
Robot Progress	0.08	0.24
Determiner errors		
The Perfect Teacher	0.09	0.12
Park Letter	0.06	0.21
Robot Progress	0.04	0.18

iii. ANALYSIS

Overall patterns of error

The EIT group produced proportions of between 0.59 and 0.64 of error free t units on the three tasks. However, as with other measures, there was some important within-group variation. EI_PR and EI_PN made the fewest grammatical errors of all, with around 70% of t units error free on the Park Letter and Perfect Teacher tasks, and over 90% of error free t

units on the Robot's Progress task. EI_EN and EI_VN produced the most frequent errors, with EI_VN producing between 15 and 40% of error free t units on the three tasks. EI_KN was intermediate between these two extremes, with between 57 and 59% of error free t units.

Of the error categories focused on in the study, omission of BE were the least frequent, occurring very rarely if at all in EIT texts. Errors with plural noun inflections were the most frequent of the categories investigated. However, in the case of the most accurate texts, present tense agreement errors were the most frequent, with other categories largely absent.

The contrast between the LIT and EIT groups is substantial. The LIT group made significantly more errors than the EIT group, the latter producing three times as many error free t units as the former. Although some error categories significant within the writing of the LIT group also occurred in at least some EIT texts, there were notable differences between the groups. Errors in present tense agreement and in plural nouns comprised a similar proportion of the total errors made by each group. However, omission of BE was a significant error type in the writing of the LIT group but was all but absent from the writing of the writing of the EIT group. One participant in the EIT group, EI_VN, showed some quite significant similarities with the LIT group in terms of both the overall frequency of errors in his writing, and in frequency of errors in morphology and syntax focused on in the study.

The EMT group did not, in most cases, make the kind of errors characteristic of the writers in the two Thai groups, who have English as an additional language. However, there were occasional instances of present tense agreement errors. Two members of the EIT group (EI_PR, EI_PN) made very few errors of any kind, and were in this respect similar to the EMT group.

Comparing error density to other potential indicators of language development

Table 7.25: Comparing different indicators for selected participants on the Park Letter task

	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT Mean
	LI_YK	LI_PG	EI_VN	EI_PN	
Proportion of error free t units	0.15	0.24	0.38	0.69	-
Mean subject length in words	1.12	1.40	2.27	3.82	2.05
Abstract noun density (types/noun group)	0.09	0.09	0.07	0.22	0.26
Complexity (clauses/t unit)	1.43	2.52	2.14	1.94	2.27
Total subordinators (per t unit)	0.77	0.65	0.33	0.18	0.54
Total modal verbs (per verb group)	0.67	0.32	0.40	0.38	0.32
Secondary tenses(per verb group)	0.00	0.00	0.07	0.13	0.09
Passives (per verb group)	0.00	0.03	0.10	0.19	0.12

The table above (table 7.25) compares a group of Early and Late Immersion subjects representing the spectrum of proficiency in each group on a number of measures on the particular text from which the example excerpts were drawn (the Park Letter task).

The frequency of some features appears to define a developmental trajectory parallel to the increase in error free t units. These include subject length, abstract nouns, secondary tenses and passive verbs. Features that do not follow this trajectory include modal verbs, overall complexity and total frequency of subordinators.

iv. SUMMARY – Error analysis

- The LIT group makes grammatical errors far more frequently than do most members of the EIT group.
- At least one category of error that is quite frequent in LIT texts is effectively absent from EIT texts, omission of BE.
- Errors in plural noun inflection, determiners and subject verb agreement in the present tense occur in the writing of both groups, though are more frequent in LIT writing.

- Two EIT writers (EI_PN and EI_PR) achieved levels of accuracy approaching those of EMT writers.
- The trajectory of error-density decrease is approximately paralleled by an increase in the frequency of some other features, notably accurate use of passive verbs, subject length and abstract nouns.
- Other features, including overall complexity, total subordinators and total modal verbs, do not parallel this trajectory.

7.12 SUMMARY OF THE RESULTS OF THE STUDY OF LEXICOGRAMMAR

Table 7.26, below, summarises the results of the study of lexicogrammar.

Table 7.26: A summary of the main findings of the study of lexicogrammar in English texts

Feature	Means compared
Participants	
Mean subject length	EMT>EIT>LIT on all three tasks
Proportion of single-word subjects	LIT>EIT on all three tasks
The frequency of abstract nouns	EMT>EIT>LIT on all three tasks
The frequency of nominal clauses	EMT>EIT>LIT on all three tasks
Expanded verbal groups	
Passive voice	EMT>EIT>LIT on all three tasks
Modal verbs with a deontic function	Thai>EMT on the Perfect Teacher and Park Letter tasks
Modal verbs with an epistemic function	EIT>LIT on Perfect Teacher and Park Letter tasks
<i>Would</i>	EIT>LIT on all tasks EIT>EMT on two out of three tasks
The Thematic Adjunct Slot	
Cohesive conjunctions	LIT>EIT>EMT on all three tasks
Clause complexes	
Overall complexity in clauses per t unit	LIT approx.=EMT and EIT
Frequency of consequence conjunctions	LIT>EIT>EMT on the Perfect Teacher and Park Letter tasks EIT>EMT on all three tasks
Frequency of <i>because</i>	LIT>EIT on all tasks EIT>EMT on two tasks
Frequency of <i>think</i>	LIT>EIT on the Perfect Teacher and Park Letter tasks EIT>EMT on the Park Letter and Robot Progress tasks
Interpersonal features	
Frequency of predicative (carrier-attribute) adjective clauses	EIT>EMT on the Perfect Teacher and Park Letter tasks

Although there is overlap between groups on many measures, there are, nevertheless a number of patterns in the data, which are suggestive of developmental trends. Based on patterns of variation from the LIT group, through the EIT group and on to the EMT group, these emerging developmental trends might be tentatively summarized as follows:

As language knowledge develops participant nouns become longer and subjects, in particular, are less likely to consist of single words. Writers are increasingly able to deploy abstract nouns, including nominalizations and gerunds, as participants. This enables them to condense information and allows greater flexibility in the way discourse is structured and logical relations are signalled. Development also leads to the appearance of relational verbs expressing cause and effect relations as a further resource for marking logical relations. The resources in verbal groups show changes, notably growing control of passive verbs and epistemic modal verbs. Overall levels of complexity within discourse do not vary between Late Immersion Thai writers and the other groups, but the sources of this complexity do. Late Immersion Thai students create complex discourse involving frequent deployment of expansion and projection using a relatively restricted range of subordinators. With further development in language knowledge, the frequency of expansion and projection diminishes but nominal clauses and relative clauses become more frequent. Error density in the writing of Thai Immersion learners declines steadily as language knowledge develops.

In addition to trends that appear, broadly speaking, to be developmental in origin, there are also some possible contrasts between Thai Immersion and English mother tongue writing that may be the result of the influence of Thai culture on language use. One such example is the frequent use of modal verbs with a deontic function on the Perfect Teacher task by Thai writers. This point of contrast will be explored further in the subsequent two chapters, and particularly in the chapter looking at the writing of Thais in Thai.

Two patterns of variation in lexicogrammatical frequency manifested at text level were described: Firstly, the explicit expressions of Value in Thai Immersion writing when compared to EMT writing, which led to the more frequent use of predicative adjectives in

Thai writing; secondly, the variation from more involved to less involved, more abstract discourse, with EMT writers tending to produce more abstract discourse when compared to Thai Immersion writers. These patterns may be primarily developmental in origin, but a cultural component cannot be completely rejected.

Appendix iv. presents a comprehensive summary of the results of this section of the study in the form of a table illustrating developmental trajectory for the features of language investigated. The results are discussed further in chapter 10.

Chapter 8 – The Rhetorical Structure of English Texts

8.1 INTRODUCTION

The investigation of rhetorical structure in the current study focuses on four areas, as discussed in chapter 6:

- variations in the rhetorical structure of whole texts within and between groups in the study;
- the source of attitudes expressed within text paragraphs in the two tasks involving overt persuasion (Perfect Teacher and Park Letter), and how this relates to rhetorical structure;
- rhetorical structures that are distinctive to Thai writers;
- the development of rhetorical knowledge within and between groups.

The first two points above are dealt with initially, in sections discussing each of the three tasks used to elicit text samples in turn, the Perfect Teacher task, the Park Letter task and the Robot Progress task. To investigate the source of attitudes within clause packages (defined here as a group of clauses united by a single topical theme, often marked within the text as a paragraph; see Katzengerger, 2004 for a discussion of the term), the overall source of the attitudes expressed within the clause package was classified as being *the writer*, as in “I think that the perfect teacher should be kind”, *a general group* as in “Most students think that the perfect teacher should be kind”, *a specific person* such as “John, a 15 year-old-student at Bangkok Pattana”, or *no explicit source*, where an attitude is simply stated, as in “The perfect teacher should be kind”. The number of clause packages with

attitudes sourced in each way was counted and then divided by the total number of clause packages involved in the count in order to compare texts of different length.

The final two points are discussed in separate sections following this. The chapter then presents RST diagrams for three complete texts written by participants from the three groups writing in English, the LIT group, the EIT group and the EMT group. The chapter concludes with a summary of the results and a discussion of the findings. Section headings are as follows:

8.2 THE STRUCTURE OF, AND SOURCE OF ATTITUDES WITHIN, WHOLE TEXTS FOR THE THREE WRITING TASKS

8.3 RHETORICAL STRUCTURES DIFFERENTIATING THAI AND EMT WRITERS

8.4 RHETORICAL DEPTH AND THE COMBINING OF RHETORICAL STRUCTURES WITHIN TEXTS

8.5 RHETORICAL STRUCTURE TREES FOR COMPLETE TEXTS

8.6 SUMMARY

8.2 WHOLE TEXT STRUCTURES AND THE SOURCE OF ATTITUDES IN TEXTS

i. The Perfect Teacher task

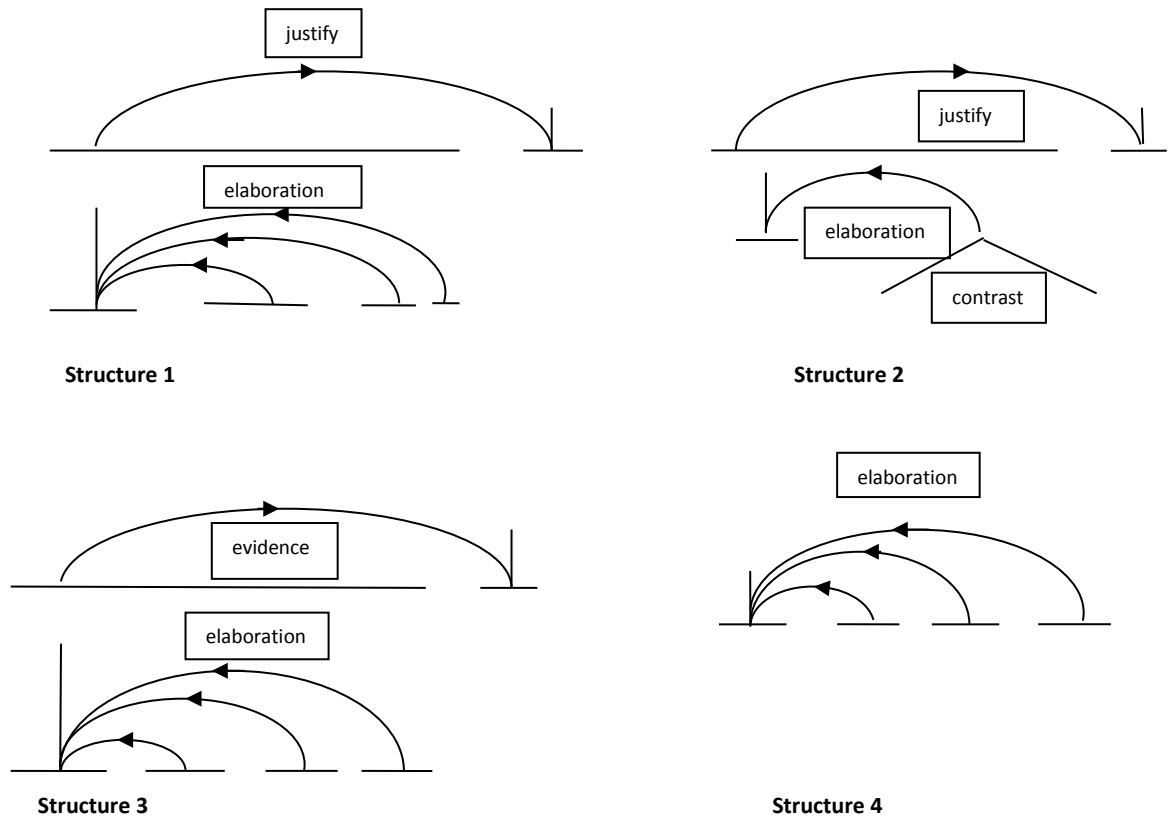


Figure 8.1: Whole-text schemas used on the Perfect Teacher task

Schemas representing whole texts and the source of attitudes within paragraphs are dealt with together as they are intimately connected. The whole-text structures deployed for the Perfect Teacher essays fall into 4 basic categories illustrated above (figure 8.1). With one exception, all texts begin with an introductory segment, which is then elaborated on. The main source of variation between writers lies in: i) the way material in the body of the text was organized; 2) the presence or absence of a concluding segment capturing the overall purpose of the text; and 3) the nature of the concluding segment and its relationship to the preceding material in the text.

Structures 1 and 2 are similar in that the relationship between the introductory and body paragraphs, and the concluding paragraph was interpreted as a *justify* relation. In contrast,

structure 3 is interpreted as involving an evidence relation. In each case, the nucleus of the whole text is the concluding paragraph. The intended effect of these two relations is as follows:

Justify: After reading the satellite, the reader is more prepared to accept the writer's right to present the material in the nucleus.

Evidence: The satellite increases the reader's belief in the nucleus.

The difference between these two relations is subtle but clear. A satellite that is related to its nucleus by the *evidence* relation provides supporting material selected in order to convince the reader that the proposition expressed in the nucleus is true. In the case of the *justify* relation, the intention of the writer is for the satellite material to increase the reader's willingness to accept his right to present the nucleus. The content of nucleus and satellite in a *justify* relation may therefore be more loosely related, since the satellite material is not selected to explicitly prove the nucleus. The excerpt from an Early Immersion response to the Perfect Teacher task below (figure 8.2) illustrates this difference.

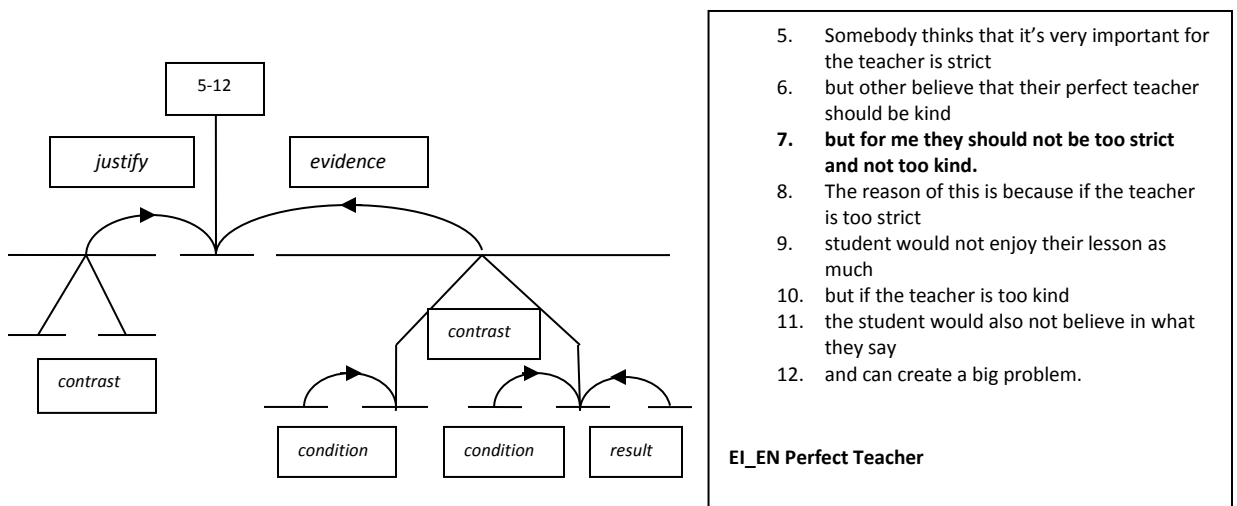


Figure 8.2: Example of *evidence* and *justify* relations.

Segment 7 is the nucleus of the complete clause package, and states the opinion of the writer. Clauses 5 and 6, preceding it, state the views of other students. By exploring the views of others first, the writer has established her right to present her own views. Thus,

clauses 5 and 6 relate to clause 7 through the *justify* relation. Clauses 8 to 12, however, supply direct support that the proposition in clause 7 is true. Thus, these clauses relate to segment 7 via the *evidence* relation.

In texts involving the *justify* relation at the highest level, the main body of the whole text presents a range of views explicitly sourced to people other than the writer, as in the following example from a LIT writer:

On the other hand, some people think that the perfect teacher should be kind. So student will not scared with teacher. Moreover, student say that teacher should be their friend when they are lonely and don't have people to help because this will make student think this teacher is like their parents.

LI_PK Perfect Teacher

The attitudes in the conclusions were, in contrast, sourced explicitly to the writer:

In my conclusion, I think I like the teacher that very care about the student. In addition, teachers must make student laugh, make student happy, make student think that this is the perfect teacher that I never have.

LI_PK Perfect Teacher

In other words, the opening paragraphs do not provide evidence supporting the conclusions expressed in the final paragraph. Rather, by first exploring views potentially held by others, the writer has established her right to express her own opinions on the topic.

Figures 8.9-8.11 in the current chapter illustrate structures 2 and 3 from figure 8.1 in more detail. Text 4 in Appendix vi. is a whole-text example of structure 4.

The table below (table 8.1) presents group means for the sourcing of attitudes within clause packages, as a proportion of total clause packages.

Table 8.1: The source of attitudes within the Perfect Teacher task

	LIT	EIT	EMT
Attitudes with no explicit source	0.15	0.47	0.59
Attitudes sourced explicitly to general others	0.73	0.31	0.05
Attitudes sourced explicitly to specific others	0.00	0.00	0.22
Attitudes sourced explicitly to the writer	0.12	0.22	0.14

The tendency of Late Immersion Thai and, to a lesser extent, Early Immersion Thai writers to source attitudes to a general group of others is clear in the overall data presented above. Some writers in the EMT group supported statements about the qualities of a perfect teacher by quoting imaginary students by name (see specific others in the table above). However, this strategy was quite distinct from that adopted by Thai participants.

In texts categorized as structure 3, the concluding paragraph distills the ideas constructed in the body paragraph, which is interpreted as presenting evidence for this conclusion. There is therefore, in a sense, a tighter relationship between the propositional content in type 3 texts.

The table below (table 8.2) presents the number of texts from each group of participants deploying the four structures.

Table 8.2: The frequency of different whole text structures on the Perfect Teacher task

	LIT	EIT	EMT
Structure 1	1	0	0
Structure 2	4	2	0
Structure 3	0	1	3
Structure 4	0	2	2

It is notable that the majority of Thai participants writing in English, but no EMT writers, deployed type 1 and 2 structures involving the *justify* relation. In other words, most Thai writers explored the opinions of hypothetical students in some detail before stating their own opinions on the issue. In most cases, the body of the text was organized around two contrasting viewpoints of a “perfect teacher”, strict and authoritarian as opposed to kind and nurturing. The English mother tongue group, in contrast, built evidence for the case stated most directly in the concluding paragraph. Thus, the relation best capturing the overall text structure of most EMT texts is *evidence*.

Two texts from both the EMT group and the EIT group simply elaborated on a statement of text purpose positioned near the beginning of the text. The formal definition of the *elaboration* relation is given below (table 8.3).

Table 8.3: Formal definition of the Elaboration rhetorical relation (from Taboada, 2014)

Diagram removed for copyright reasons

The key difference between texts characterized by the *elaboration* relation at the highest level and those characterized as *justify* or *evidence* was the expression of a clear position by the writer: In the texts assigned the *elaboration* relation (structure 4), nuclear paragraphs do not explicitly position the writer. Rather, they establish the topic that the following body of the text will elaborate on; in the case of *justify* and *evidence*, a position is stated explicitly. The following excerpts illustrate this point:

I think that there are many ways a teacher could be perfect, and different students will have different ideas. Some teachers could be perfect in one way and others could be perfect in a different way.

NE_2 Perfect Teacher

In my opinion, I think that teachers should not be strick because this will allow students to have confidence on telling answers out loud but at the same time, teachers should set the right amount of homework to help pupils memorise the knowledge easier.

EI_KN Perfect Teacher

The above excerpts constituted the nuclei of their respective whole texts. In the first, no clearly defined position is taken; in the second, an explicit position is articulated.

One generalization that holds for all writers in the study is that in no text was a position on the characteristics of a perfect teacher clearly articulated in the introductory segment of the text and then developed subsequently in the classic form of a deductively structured argument. Texts began with statements that served to orientate the writer to the topic at hand, such as the first excerpt above subsequent paragraphs within the body of texts served as elaboration. The main characteristic differentiating writers was whether texts concluded with a clear statement of position regarding the nature of a perfect teacher. Those texts that did this were categorized as either structure 1, 2 or 3 for reasons stated above.

ii. The Park Letter task

The rhetorical structure schemas illustrated below (figure 8.3) characterize the Park Letter texts.

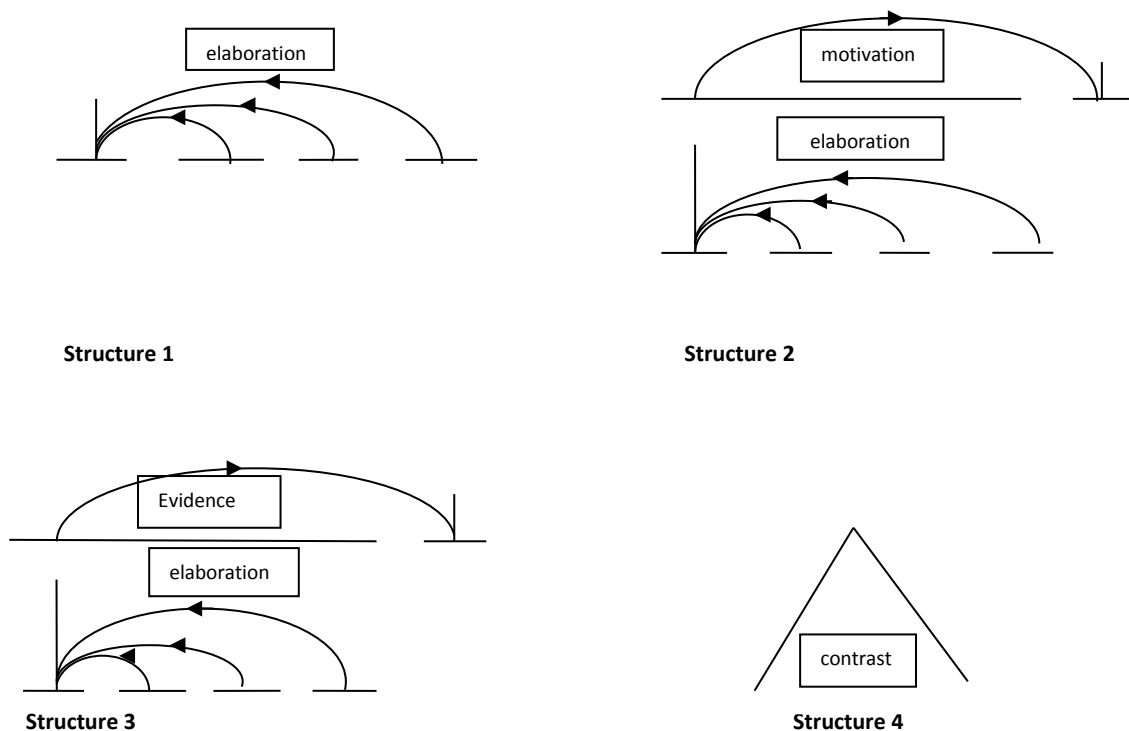


Figure 8.3: Whole text schemas used on the Park Letter task (See Texts 1-3 in Appendix vi. for complete examples of whole-text structure trees)

Table 8.4: The frequency of different whole text schemas on the Park Letter task

	LIT	EIT	EMT
Structure 1	1	1	3
Structure 2	2	1	2
Structure 3	1	3	0
Structure 4	3	0	0

Note: One LIT participant combined structure 4 with structure 2, another combined structures 1 and 4.

As with the Perfect Teacher task, the most basic element of the texts is best captured by *elaboration*, involving, as it does, the development of a general statement on the proposed park rules by specific details with subsequent clause packages.

One difference in the deployment of whole text schemas by the various groups (see table 8.4) relates to structures 2 and 3. In these schemas, the closing paragraph states either an action to be performed by the reader, or attitudes towards the proposed rule changes, in the case of the evidence relation. The *motivation* texts explicitly urged the park manager to alter the proposed rule changes; the *evidence* texts stated the attitude of the writer towards the proposed changes without explicitly stating that the manager should alter them. The difference between these two schemas is therefore quite subtle. The majority of Thai writers employed either one or the other of these two schemas. Two out of the five EMT writers produced texts with these overall schemas; the others deployed texts that were interpreted as *elaboration* of an initial statement. It should be acknowledged, however, that in the case of these Park Letter texts, the difference between structures 1, 2 and 3 was relatively marginal, and depended on an interpretation of the closing paragraph of the texts.

A clearer and perhaps more significant difference between some writers in the Late Immersion Thai groups and the EMT writers is the deployment of the *contrast* relation as a key organizational feature of the whole text. Three texts written by LIT writers organized the body of their texts into two parts: rule changes they agreed with and rule changes they disagreed with. This text structure is similar to structure 2 from the Perfect Teacher task.

The source of attitudes in the Park Letter texts (table 8.5) was less clearly related to overall rhetorical structure. The table below shows a count of the source of attitudes expressed within each clause package for the three groups.

Table 8.5: The source of attitudes in clause packages as a proportion of total clause packages (Park Letter task)

	LIT	EIT	EMT
Attitudes with no explicit source	0.19	0.43	0.49
Attitudes sourced explicitly to others	0.13	0.05	0.02
Attitudes sourced explicitly to the writer	0.69	0.53	0.63

The EIT and EMT groups show a very similar pattern. The LIT group, however, expressed the attitudes of other park users more frequently than did the EIT group and the EMT group. The excerpt below, from an LIT writer, illustrates this:

I am not quite sure of the reason why they are not allow to do ball game when there are already some space left that no body use for anything, so my idea is to ask you to think again carefully about this because some young men are not like this rule at all and there might be a negative effects follow by this. Moreover, there are also some people complain about they want to let their dog run freely in the park not on the leads all the time because there is no different if they come to the park or not if their dog have to stay on lead. This not effect anything to me but some people are really angry about this but they start let their dogs start pying and pool on the grass. Please do something about this. (LI_TW Park Letter)

This excerpt includes three references to the attitudes of other park users, which are underlined. The following excerpt is more characteristic of the EMT group:

The topic I first wish to discuss is the skateboard ramp being built on the grassed area. If this proposal were to go through and become a reality, I doubt it would be a turn for the best. While I do admit that grass will act as a better buffer zone in the event of an impact (as oppose to concrete). On the other hand, I feel it will bring several new problems. Firstly, skaters may not be able to use it anyway since it is almost impossible to skate along grass, furthermore, it may pose an even greater hazard to people (hoping to enjoy the grassed area as well), since being hit by the flying skaters is a possibility. Clearly not enough thought has gone into this proposal. (NE_3 Park Letter)

The attitudes in this paragraph are either sourced explicitly to the writer, as in "I feel it will bring several new problems," or have no explicit source, as in, "Clearly not enough thought has gone into this proposal."

It is possible that this difference may be linked to cultural influence, a topic explored further in the following chapter, which examines the writing of Thai learners writing in Thai.

iii. The Robot Progress task

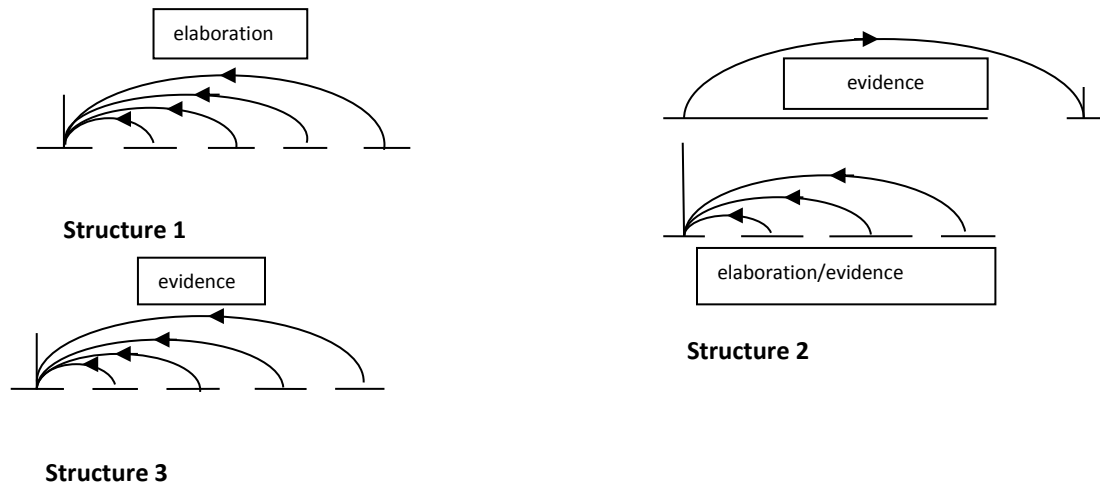


Figure 8.4: The whole-text schemas used on the Robot Progress task (See Appendix vi. Texts 5 and 6 for complete examples of structures 1 and 2)

The Robot Progress task ostensibly required participants to write a progress report on an engineering project. Figure 8.4, above, presents whole-text schemas adopted by writers on this task. Structure 1 most closely matches the structure of a stereotypical report. Texts organized according to this schema placed a general statement concerning the state of the project early in the text. Subsequent clause packages elaborated on this statement by supplying details of functions, problems solved and issues to be addressed. The main difference between structures 1 and 3, and structure 2 is that in the former two structures, the text did not conclude with a segment interpreted as representing the core purpose of the text. In most cases, texts categorized as structure 1 and structure 3 ended in a segment fulfilling an interpersonal role similar to the concluding stage of a letter (see Text 5 in Appendix vi.), which was not interpreted as participating in the rhetorical structure of the text (Mann, Matthiessen and Thompson, 1989).

Structure 2 involves a concluding segment stating the perceived success of the project. In these texts, this concluding segment was interpreted as nuclear, and the preceding segments were interpreted as providing *evidence* for the writer's assertion of success. The relationship between the body segments and the initial, introductory segments varied. In most cases, the relationship was one of elaboration.

In structure 3, the initial paragraph makes an overt statement of attitude towards the robot and the subsequent segments were interpreted as *evidence* of the truth of that statement.

The table below (table 8.6) presents the frequency of these text schemas within the three groups of the study.

Table 8.6: The frequency of different whole text schemas on the Robot Progress task

	LIT	EIT	EMT
Structure 1	2	4	1
Structure 2	1	1	4
Structure 3	2	0	0

The majority of Thai participants organized texts in accordance with structure 1. Most EMT writers deployed structure 2. In other words, EMT writers generally included a concluding segment to their texts explicitly stating that the project to design a robot had been a success, whereas most Thai writers in both the LIT and EIT group did not.

8.3 RHETORICAL STRUCTURES DIFFERENTIATING THAI AND EMT WRITERS

One feature that occurred in some texts by Thai writers but was not deployed by any English Mother Tongue writer is what might be termed disclaimer statements. *Disclaimer* is not a rhetorical relation recognized in the classic RST list of potential relations (Taboada, 2014), and these statements seem to function to *justify* relations in the sense that they appear to relate to a writer's sense of his or her right to present opinions on a particular topic without fear of being challenged.

A total of four Thai participants out of a total of 10 (3 LIT and 1 EIT) included disclaimer statements in their Perfect Teacher texts. The following example illustrates these *justify/disclaimer* structures:

(1) In conclusion, the perfect teacher in my opinion should have both of the two sides of the comments because teachers should be strict but don't need to be like that always because it will make students feel uncomfortable around them. Also, some time it's nice for teachers to talk and joke with the students not only make serious face all the time. (2) However different people might have different ideas from me but I am sure that there is one thing that every students wish the same is teacher shouldn't give out too much homework on week end and holiday.

LI_TW Perfect Teacher

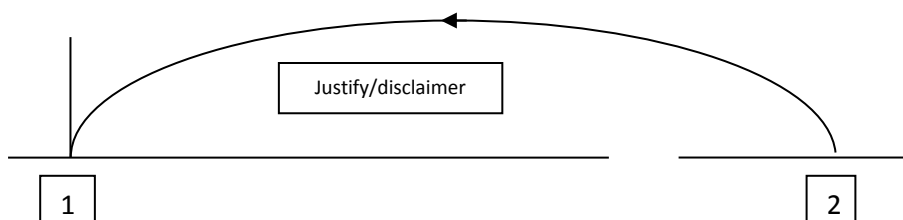


Figure 8.5 Simplified representation of *justify/disclaimer* relation

In the example above (figure 8.5), the concluding paragraph from a text, the nucleus states the qualities the writer considers most important for a “perfect teacher”. The following clause recognizes that “*different people might have different ideas*”. The rhetorical effect is to reduce any feeling of obligation for the reader to adopt this position. In other words, the writer makes a rhetorical move that appears to diminish the overt persuasive force of the text, and perhaps, therefore increase the reader’s willingness to accept their right to state those views.

Another example of the satellite of a disclaimer relation is given below:

In conclusion, this is my perspective to be a perfect teacher. On the other hand, this is my point of view, maybe it is opposite to the other students. (EI_VN Perfect Teacher)

In this case, the *justify/disclaimer* relation holds for attitudes expressed within the body of the text. The writer makes it clear that the opinions expressed in the text are those of the

writer, and implies that there may well be other points of view that should be viewed as equally valid.

It is recognized that RST relations are not a closed set and that relations are, to a greater or lesser extent, culturally embedded (Mann, Matthiessen and Thompson, 1989). One might tentatively suggest a definition of a *disclaimer* relation, a sub-type of the *justify* relation, as outlined in table 8.7 below.

Table 8.7 A definition for a disclaimer relation (N=nucleus, S=satellite)

Name of Relation	Constraints on either nucleus or satellite individually	Constraints on nucleus and satellite	Intention of Writer
Justify (disclaimer)	On N: Reader might feel an obligation to take the position stated in the nucleus. On S: Reader recognizes that the satellite relieves any obligation to take the position stated in the nucleus.	Reader's comprehending of satellite reduces any obligation to take the position held by the writer.	Reader does not feel an obligation to take the position stated by the writer and so accepts the writer's right to present the material in the nucleus.

8.4 RHETORICAL DEPTH AND THE COMBINING OF RHETORICAL STRUCTURES WITHIN TEXTS

Rhetorical Depth

One measure of the extent to which topics are developed within texts is the depth of rhetorical structure in texts; that is, the number of levels that occur within the rhetorical structure of the whole text (O'Brien, 1995). Rhetorical structure tree diagrams are organized around a hierarchy of relations obtaining between segments of text from the level of the clause to the level of the whole text. Shallow structures result when multiple segments of a text are each related by a single repeated relation to a single nucleus (as in the example labeled as Structure 3, in the section on the Robot Progress texts above). More complex internal relations between the clauses and clause packages within the body of the text to each other results in more levels of rhetorical structure (as in Structure 2 of the Robot Progress texts). The number of levels within a text is therefore a measure of topic development within texts. The tables below (table 8.8) present data for rhetorical depth from the three groups for the three writing tasks.

Table 8.8: Rhetorical depth on all three tasks**The LIT Group**

	LI_EN	LI_PG	LI_PK	LI_TW	LI_YK	Mean
Perfect Teacher	5	8	9	6	6	6.8
Park Letter	4	7	6	8	4	5.8
Robot Progress	5	7	5	6	3	5.2
Overall Mean						5.9

The EIT Group

	EI_EN	EI_KN	EI_PN	EI_PR	EI_VN	Mean
Perfect Teacher	6	6	6	4	6	5.6
Park Letter	6	8	4	4	6	5.6
Robot Progress	5	7	6	4	7	5.8
Overall Mean						5.6

The EMT Group

	NE_1	NE_2	NE_3	NE_4	NE_5	Mean
Perfect Teacher	7	6	7	4	8	6.4
Park Letter	4	7	6	6	7	6.0
Robot Progress	6	7	6	5	7	6.4
Overall Mean						6.3

When comparing the three groups, three points become apparent themselves: 1) The LIT and EMT groups developed somewhat deeper texts than the EIT group overall; 2) The EMT group were more consistent in developing rhetorically deep texts across the three tasks than the other two groups; 3) The LIT group developed anomalously deep texts for the Perfect Teacher task, which contribute disproportionately to their overall mean for rhetorical depth.

The anomalously deep Perfect Teacher texts by LIT writers can be accounted for by reference to the tendency, discussed above, for this group to organize points around a contrast relation within the body of the text. As a result, a more hierarchical and less linear internal structure emerges. The EMT group, in contrast, produced somewhat more consistently deep texts resulting from control of topic development within body paragraphs. The main contrast between these two groups is perhaps best explained by the extent to which they draw upon knowledge of a relatively rigid, whole-text schema. The internal structure of the LIT and to some extent the EIT texts, can be explained by reference to the stereotypical pattern of a discussion text (Martin and Rose, 2008), a

balanced argument where two sides of an issue are examined before a conclusion is presented. Many of the Thai writers, and particularly those in the LIT group, appear to have drawn upon this whole text schema, which had been taught during ESL instruction, to scaffold their writing.

It is also important to note that there is notable within-group variation in the depth of rhetorical structure trees for each group.

Combining rhetorical structures within texts

There is no convincing evidence that some relations are acquired by Thai learners later than others. Rather, what varies between participants at different stages of language development is the lexicogrammatical realization of rhetorical structures and the way rhetorical structures are combined flexibly to achieve an overall effect. This can be illustrated by examining how similar relations were realized by participants within different groups of the study. The following examples all include either the *antithesis* relation or *concession* relations (Taboada, 2014, see Appendix i. for formal definitions), both of which involve juxtaposition of contrasting positions in order to persuade the reader that one of them is preferable.

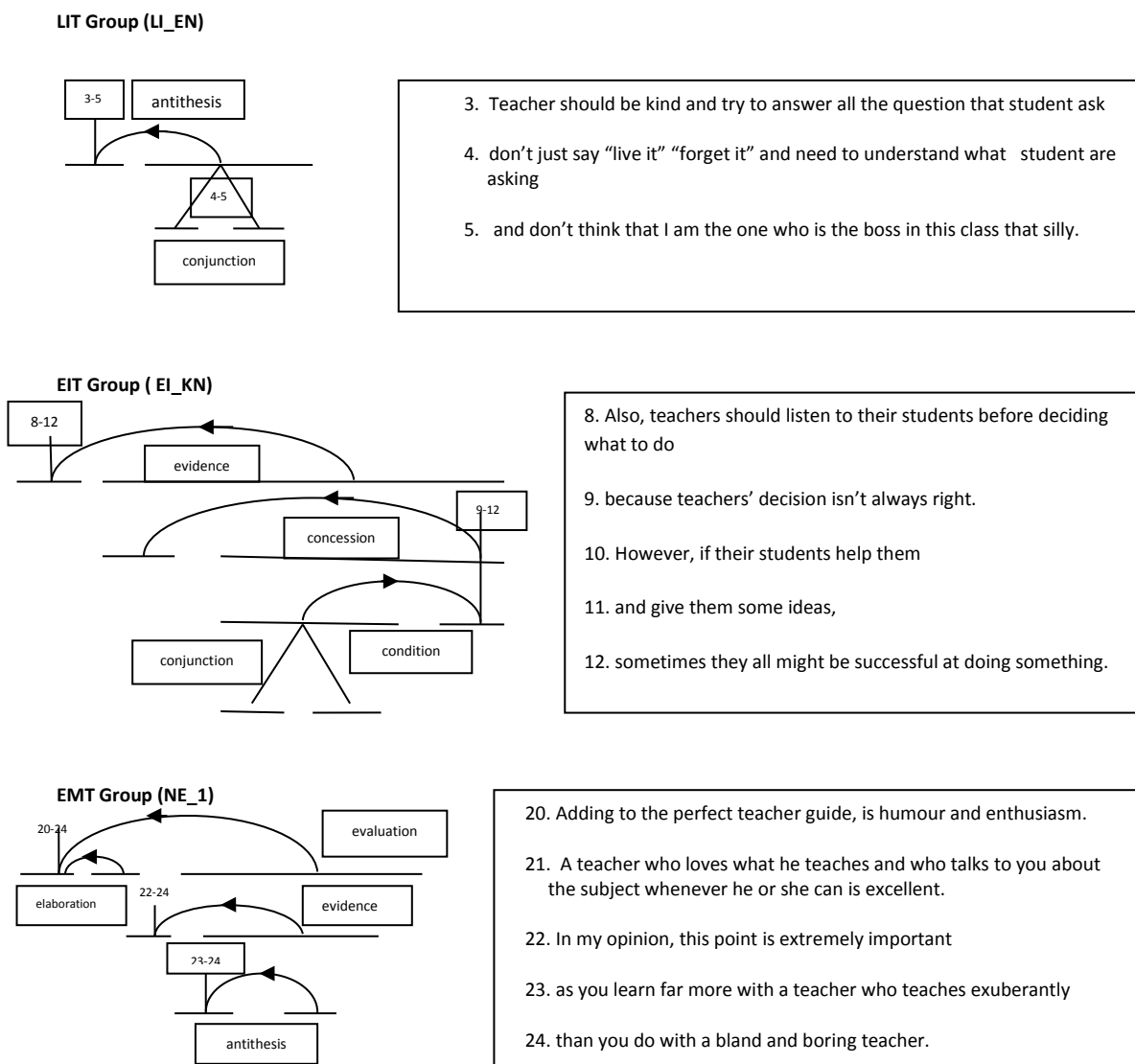


Figure 8.6: Examples of how writers from the three groups combine rhetorical structures

In each of the three examples in figure 8.6, above, a general statement regarding the qualities of a perfect teacher is developed by juxtaposing other content. In the first example, by an LIT writer, the clause package includes three clause segments. The first clause presents a generalization about the qualities of the perfect teacher. The other clauses present a contrast that affirms the truth of the generalization. The three clauses function as a coherent whole, but the clause package is limited to two levels. In the two examples that follow, written by EIT and EMT writers respectively, deeper clause packages are developed that combine three or more relations to create a coherent whole.

Three out of five members of LIT group (the more proficient writers discussed in the previous chapter) developed deep rhetorical structures, as the tables recording rhetorical depth of texts above show. The rhetorical depth reflects the way these writers organized texts around a hierarchical template for a stereotypical *discussion* text (Martin and Rose, 2008). Clauses were clearly interrelated by the themes of a nurturing versus an authoritarian teacher resulting in rhetorically deep texts. However, in these texts, the writers lack control over rhetorical structures. The relationship between text spans is less clear, leading to looser coherence. The following example (figure 8.7), from within an LIT text, illustrates this point.

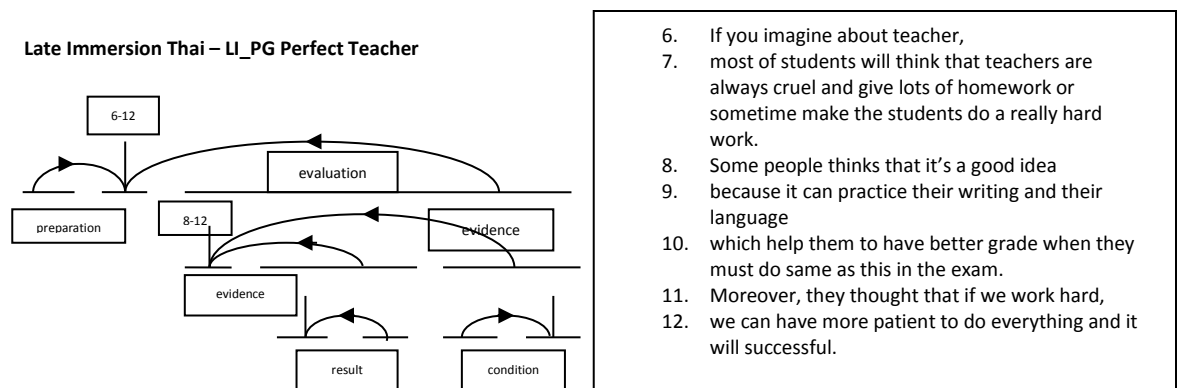


Figure 8.7: An example of the way a more proficient LIT writer combined rhetorical structures

All the segments in the example above are organized around the theme of an authoritarian teacher. The RST reading above identifies clause 7 as the central nucleus, stating the qualities of the teacher. The following clauses relate to this central segment through *evaluation*, and then *evidence*. The segment appears less coherent than similar segments by EIT and EMT writers, presented above, partly because of the way the writer sources the attitudes to general groups with “some people” and “they”, making it more difficult for the reader to identify the writer’s focal point or purpose. An additional problem relates to control of lexicogrammar. Clause (9) is an important pivot point within the structure, presenting evidence of the evaluation in (8). However, the lack of sophistication in presenting this proposition reduces the effectiveness of the evidence segment. The use of *it* does not link clearly enough to the idea expressed in clause (7), resulting in a loss of cohesion, and *can practice* does not effectively express the notion that the kind of teacher

described in (7) will lead to improvements in achievement. Similarly, the expression in clauses 11 and 12, although its role as *evidence* seems clear, is less successful due to the problems the writer has within the clause in both cohesion and in the expression of ideas with satisfactory precision.

When considering possible cultural as opposed to developmental influences on the rhetorical structure of the writing of the LIT group, the picture is clearly complex. Clause (6), analyzed as *preparation* seems to form a topic-comment structure with the subsequent nucleus. This seems atypical of English texts and was not a feature of the writing of the EMT group. The basic inventory of RST relations required to analyse the structure of texts written by Thai learners is the same as for the EMT texts. However, there are subtle differences, such as the *justify/disclaimer* relation discussed above.

Overall, both EMT and the Thai groups show marked within-group variation in the effective deployment of rhetorical structures. Some EMT writers produced shallow structures similar to those of some LIT writers. However, their control of lexicogrammar within the clause makes their texts easier to read. The following segment (figure 8.8, below) from an EMT text is drawn from a text with shallow structure.

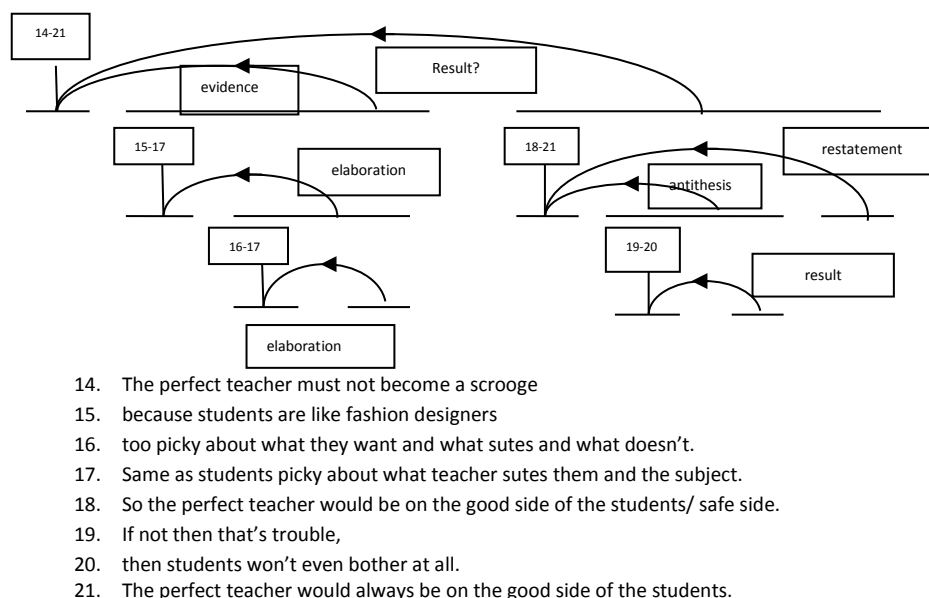


Figure 8.8: An example of rhetorical structures deployed by a less effective EMT writer (NE_4 Perfect Teacher)

This text segment (figure 8.8), like some of the LIT texts, presents a challenge to the RST analyst. RST relations are not always clear and some segments seem superfluous to the writer's purpose. In addition, unlike texts written by most of the LIT writers for the Perfect Teacher task, the text does not follow a simple text schema at the whole-text level, such as the contrast between a strict and nurturing teacher, leading to a relatively shallow whole-text structure of 4 levels. EMT texts such as this highlight the variation in text-building skills within all the groups. Writers at this age are still developing their knowledge of genres and English mother tongue writers vary significantly in their capacity to develop effective texts.

8.5 RHETORICAL STRUCTURE TREES FOR COMPLETE TEXTS

RST diagrams for complete texts, one Thai Late Immersion, one Thai Early Immersion, and one from the EMT group, are presented below (figures 8.9, 8.10 and 8.11). These texts are responses to the Perfect Teacher task, which produced the most marked contrast between the writing of Thai immersion and English mother tongue writers. They illustrate in more detail the key features distinguishing the rhetorical structures of the three groups writing in English.

The texts differ in terms of length, as can be seen in the number of segments of approximately one clause involved in each analysis (25 clauses in the LIT compared to 44 for the EMT text). The rhetorical depth measured as the total number of levels in the rhetorical structure tree is similar, with 6 levels for the LIT and EIT texts and 7 levels for the EMT text. However, the 6th level of the EMT text is more densely populated than those of the EIT and LIT texts, reflecting the fact that the EMT writer does in fact develop topics and sub-topics more fully.

In the body of the LIT text (figure 8.9), qualities of the perfect teacher are organized around two themes related by *contrast*, which might be labelled nurturing vs authoritarian, an organizational strategy discussed above. Below the level of the *contrast* relation, the multinuclear relation *conjunction* best explains the relationship between clauses at the next level in the text body. In effect, the qualities of the perfect teacher are listed rather than developed. The EIT writer (figure 8.11) uses a similar organizational strategy, contrasting the kind of teacher parents might favour with the kind a student might favour, once again nurturing contrasted with authoritarian. The rhetorical structure for both these texts is interpreted as *justify*. In each text, the body segments present views of what might constitute a perfect teacher from the perspective of others rather than the writer. The concluding paragraph presents the writer's view. Thus, the preceding material can be interpreted as supporting the writer's right to present his views (the *justify* relation) rather than providing evidence that they are true. The LIT writer presents a disclaimer within the final paragraph, as discussed above.

The EMT writer (figure 8.10) presents the central features of the perfect teacher in their conclusion, and the preceding material relates directly to this conclusion. Unlike the two Thai texts, attitudes are not attributed to any general third parties such as students or parents. The main relation is therefore interpreted as *evidence* in this text.

Topic development reaches a higher level of sophistication in the EMT text when compared to the two texts written by Thai writers. For example, the segments including clauses 5 to 11 and 12 to 19 both include contrasting views of particular aspects of a perfect teacher

and resolve themselves in a concluding statement. In some sense, they mirror the whole text organization of the two Thai writers. However, in each case within this EMT text, the contrasting views are resolved in a concluding synthesis. In the Thai texts, the opposing views set up in the body of the texts are not really resolved in this way. Even in the EIT text, which communicates fluently, the conclusion does not seek to resolve the dichotomy between authoritarian and nurturing teachers set up in the body of the text. Rather, it accepts that the characteristics of the perfect teacher are, to some extent, context dependent.

[illegible]

1)	There are some comments that student have made about how the perfect teacher should be like.	13)	because next time students will not obey them and fooling around.
2)	Firstly, some students said that the perfect teacher should be kind and be nice to the student,	14)	Moreover, teachers should give out more and a lot of homework
3)	so the students would like them.	15)	so student could parctist it at home.
4)	Moreover, some said that teachers should listen to their students more.	16)	Therefore students will have no time to fool around out side after school.
5)	Furthermore, some of the students also says that the teacher shouldn't be too strict	17)	In conclusion, the perfect teacher in my opinion should have both of the two sides of the comments
6)	and shouldn't give out a lot of homework.	18)	because teachers should be strict
7)	Also, perfect teachers should have a nice looking face,	19)	but don't need to be like that always
8)	so the student will have more concentrate at them	20)	because it will make students feel uncomfortable around them.
9)	more than look outside the class window.	21)	Also, some time it's nice for teachers to talk and joke with the students
10)	However, some students said that the perfect teacher should be really strict	22)	not only make serious face all the time.
11)	so they can control all of the students.	23)	However different people might have different ideas from me
12)	Example like teachers shouldn't play with students	24)	but I am sure that there is one thing that every students wish the same
		25)	is teacher shouldn't give out too much homework on week end and holiday.

Figure 8.9: An example of whole text rhetorical structure tree by an LIT writer (LI_TW)

evidence

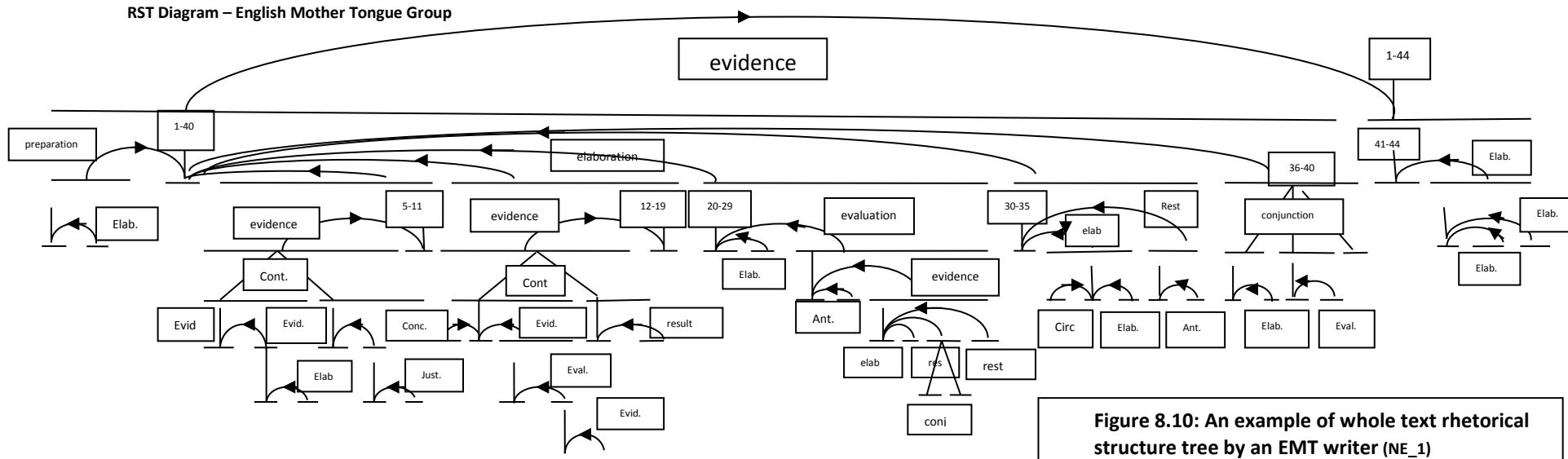
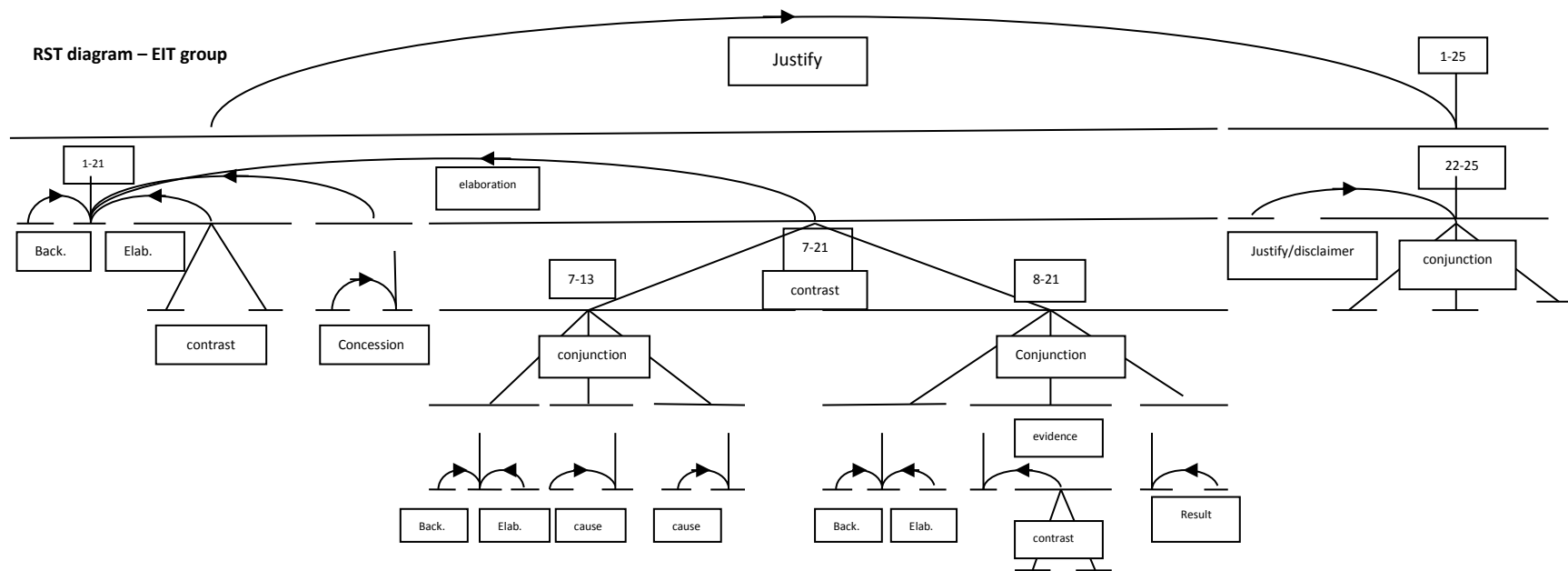


Figure 8.10: An example of whole text rhetorical structure tree by an EMT writer (NE 1)

1)	Have you ever thought to your self and wished you had the perfect teacher?	16)	as one day, we are all going to be independent grown ups.	31)	When students talk to their teachers about their various problems,
2)	More suited to what you like.	17)	On the other hand, there are those who set homework for no reason,	32)	I am sure that the teacher always has a sense of nostalgia
3)	Personally, my perfect teacher has to be well rounded,	18)	which results in time spent on unimportant assignments.	33)	and remembers when he or she were in the same position.
4)	with charisma and enthusiasm to top it all off.	19)	To conclude this point, I would have to say that the perfect teacher would know the exact amount of homework to set.	34)	Having a grown up to help you through school life when you need it, is truly amazing,
5)	A slight harshness is good	20)	Adding to the perfect teacher guide, is humour and enthusiasm.	35)	much better than a hard and unemotional person.
6)	as it reinforces their authority	21)	A teacher who loves what he teaches and who talks to you about the subject whenever he or she can is excellent.	36)	In addition, it is always good to have a teacher who has other interests
7)	and lets the student know that respect is definitely needed	22)	In my opinion, this point is extremely important	37)	and who is involved in the community, the culture and the ongoing events.
8)	however being too strict can really put you off a teacher.	23)	as you learn far more with a teacher who teaches exuberantly	38)	From my point of view, teachers who can get the whole class to participate in a discussion is very impressive
9)	Ever been yelled at and suddenly felt that burning sensation run through your whole body?	24)	than you do with a bland and boring teacher.	39)	and I admire that.
10)	Well, I know I have and that feeling vigorously changes my thoughts on a teacher.	25)	One of the many things I enjoy in school, is when teachers reminisce on their childhood and part adult-hood	40)	Also, it is always pleasant to see a teacher support his students at music festivals, sport competitions and drama presentations.
11)	Overall, in this department, it's best as a teacher to be cautiously strict but nothing more.	26)	and adapt this into their lesson,	41)	To sum up, being the perfect teacher isn't easy
12)	Although many students despise homework,	27)	it makes the whole class more focused	42)	and it takes a lot more than being intelligent and nice.
13)	I can't imagine educationally where I'd be without it.	28)	and a lot more connected to the teacher.	43)	The perfect teacher should carry enthusiasm, humour, interest, understanding, caringness, smartness,
14)	Homework gives a chance for independent learning	29)	I have got to say that these funny little anecdotes to regain the focus of the students, is without a doubt under a perfect teacher list.	44)	and last of all, a perfect teacher is always modest.
15)	which we should value greatly	30)	Another positive factor of a teacher is them listening to their students and being able to understand them and give elidgable advice.		



1) Currently, the most frequently asked question in schools is "what is the perfect teacher?"	7) From a parent or guardian's point of view,	14) But, from the student's point of view,	22) In conclusion, the perfect teacher is different in different situations.
2) There are large varieties of answers to this particular question,	8) a perfect teacher would be one who has the ability to keep their students in check.	15) a strict teacher is just the last thing they want.	23) But in my opinion, the perfect teacher is one who is both kind and stern.
3) some concentrate on the emotional side of teachers	9) This results in a strict and stern teacher.	16) Younger students prefer kind teachers who are not to harsh and forceful.	24) One who understands the predicaments of students
4) while others focus more on the education and tuition they give.	10) Furthermore, since parents wish their children to have the best possible results,	17) Pupils would believe that a good teacher sets a moderate amount of homework,	25) and one who sets a moderate amount of homework.
5) Depending on student characteristics, the perfect teacher is different to everyone,	11) their opinion of a perfect teacher would be one who sets plenty of homework and gives or create extra curricular activities.	18) for too much would cause depression	
6) but some may be better than others.	12) Moreover, as parents want to give their children a good time,	19) and too few would result in laziness.	
	13) they would want a teacher who could understand students.	20) Finally, corresponding to parents choice of teachers, students are much contempt by teachers who could listen to them and understand.	
		21) This could improve the students better than any other types of tuition.	

Figure 8.11: An example of a whole text rhetorical structure tree for the Perfect Teacher task by an EIT writer (EI_PN)

8.6 SUMMARY

- The most marked difference between Thai and EMT writers appeared in the Perfect Teacher task. Thai writers from both the EIT and LIT group tended to relate their conclusions to the content in the body of texts via a *justify* relation. In EMT texts, this relationship was best captured by an *evidence* relation. In other words, Thai writers presented the views of generalized groups of stakeholders using phrases such as “*some students think that...*”, before expressing their own views in the concluding paragraph. The preceding material, therefore, does not function as evidence for the generalizations stated in the conclusion, but justifies the writer’s right to present his opinions. EMT writers, in contrast, presented conclusions that condensed the points in the bodies of their texts and represented the text’s overall purpose. The relationship between the body material and the concluding material was therefore interpreted as *evidence*.
- Some Thai writers deployed *justify/disclaimer* structures in texts involving overt persuasion. These involved the writer reducing the pressure that the reader might feel to agree with the attitudes expressed by the writer. EMT texts did not include such features.
- When compared to EMT writers, Thai writers, and particularly the LIT group, made more frequent use of whole-text structures involving the *contrast* relation, where, for example, a strict teacher was contrasted with a less authoritarian teacher, or in the case of the Park Letter task, “good rules” contrasted to “bad rules”.
- There is no simple relationship between the overall “depth” of text structures and the development of language knowledge. Some LIT writers produced complex, multi-leveled texts by stacking mono-nuclear structures.

- The ability to effectively combine rhetorical structures to serve one overriding function distinguished more effective from less-effective writing within groups, but also characterizes the key overall difference between LIT writers and EIT writers. Less effective writing tended to involve the use of superfluous text segments, and rhetorical relations between segments that were more difficult to interpret. The lack of control of lexicogrammatical resources in LIT texts contributed to the difficulty in reading and identifying rhetorical relationships between clauses.

Chapter 9 – Thai Language Texts Written by Thais

9.1 INTRODUCTION

The reason for the inclusion of a Thai language group writing in their native language in the current study was to provide further evidence as to whether some patterns emerging in the English data For Thai Immersion writers might be attributable to transfer from the first language and, particularly, culture. The results of the study reported in previous sections, and the literature study, highlighted the following areas:

- In the study of lexicogrammar, the frequency of relational processes as opposed to material processes was higher in EIT texts than EMT texts for the Perfect Teacher and Park Letter texts. EIT writers seemed to focus to a greater extent on the attributes of a perfect teacher rather than their behaviour.
- There was marked variation between Thai groups and the EMT group in the frequency of total modal verbs, the use of *would* and the use of modal verbs with a deontic function. In addition, research reviewed on the influence of culture on language knowledge (e.g. Mayor, 2006; Hinkel, 2002; Bickner and Peyasantiwong, 1988) suggests that the frequency of modal verbs, and particularly deontic modal verbs and the counterfactual *would*, may be influenced by culture.
- In responses to the Perfect Teacher prompt, the rhetorical structure of English texts written by Thai writers tended to hold to a *justify* relation at the level of the whole text, where body paragraphs introduced the views of other generalized groups such as *some students*, before the concluding paragraph stated the views of the writer. EMT texts focused on the views of the writer through the text, distilling those views in a final paragraph that could be better said to represent the overall purpose of the text. EMT texts were therefore interpreted as holding to an *evidence* relation at the

level of the whole text, where the preceding paragraphs provided direct support for the views stated in the conclusion.

- Research (e.g. Chakorn, 2008; Kong, 1998) and theory (e.g. Nisbett, 2003) suggests that East Asian writers may differ from EMT writers in the nature of their rhetorical appeals, with East Asians showing more of a preference for emotional appeals and EMT writers more of a preference for logical appeals.
- East Asian writing (e.g. Chao, 2008; Kaplan, 1966; Matalene, 1985), including Thai writing in Thai (Hongladarom, 2007) has been shown to be more indirect than the English writing of native speakers, with Asian writers focusing on social harmony and avoiding statements that may be seen as face threatening. The analysis of rhetorical structures by Thai writers in the current study revealed that some writers deployed disclaimer statements, which could reflect this cultural pattern.

These features are examined in the current chapter, which presents a study of lexicogrammar focusing on the verbal group, and an investigation of rhetorical structures used by the Thai writing in Thai (TWT) group compared to Thai Immersion (LIT and EIT) and EMT writers writing in English.

9.2 THE LEXICOGRAMMAR OF THE THAI TEXTS WRITTEN IN THAI (the TWT group)

The study of the lexicogrammar of Thai texts focuses on the verbal group. Findings of research reviewed above, and the results of the study of lexicogrammar in the current study both suggest that cross-cultural influence might involve an influence on such things as the frequency of categories of modal verb and possibly, on the proportion of process types used by writers. Thai is a very different language to English in many respects, but frequencies of features within the verbal group can be analysed and counted using the same basic approach as that used with English texts, since both languages have clauses and verbal groups functioning as processes within clauses, and, as will be illustrated below,

both languages have processes that can be classified under the same basic categories of SFG and express deontic and epistemic modality within the verbal group. Therefore, the same basic quantitative approach was adopted for the verbal group, and data on frequency of verbal group features obtained from the Thai texts are compared directly to those obtained from the texts written in English.

Before the results are presented, some of the characteristics of the Thai language are briefly addressed insofar as an understanding of them is necessary in validating the approach taken in the study and interpreting the data obtained. A detailed analysis of Thai linguistics is clearly beyond of the scope of the current study (see Iwasaki and Ingkaphirom, 2005, for a more comprehensive treatment).

9.3 THE THAI LANGUAGE

i. Background

Thai is part of the Thai-Kadai group of languages (Iwasaki and Ingkaphirom, 2005) that is believed to have originated in Southern China (Iwasaki and Ingkaphirom, 2005) and is currently spoken by some 60 million people, mostly in Thailand and Laos. Like members of the Chino-Tibetan family, such as Mandarin and other Chinese dialects, it is a tonal language, but unlike Chinese it is written with an alphabetic script derived from a Kmer system, which was itself derived from an earlier Indian script (Iwasaki and Ingkaphirom, 2005).

ii. Processes

The same categories of process used in the investigation of English texts are relevant to an analysis of Thai. However, there are some differences in the way concepts are expressed in the two languages. One that is important in the current study pertains to the meanings expressed by the verb BE in English. Thai has two verbs that approximate to the English verb BE – *keu* and *pen*. The first of these, *keu*, is used in identifying clauses; *pen* is used in attributive clauses.

iii. Thai Modal Auxiliaries

A number of Thai words perform a very similar function to English modal auxiliary verbs, expressing meanings including potentiality, futurity and deontic and epistemic modality. These are briefly discussed below and exemplified in table 9.1, below.

The challengeability marker *ja* (๖๔) and counterfactual meanings

In Thai, there is a modal particle, *ja*, which is often translated as *will*, but which actually operates as a marker of challengeability (Iwasaki and Ingkaphirom, 2005): “A proposition is considered challengeable or unchallengeable according to its acceptability as a fact” (Iwasaki and Ingkaphirom, 2005, pp. 123). The particle is used in statements about the future, which are seen as open to challenge by the listener, but is also used in other contexts not involving future time. According to Iwasaki and Ingkaphirom (2005), *ja* is not used in counterfactual statements, which are not considered to be challengeable since they are, by definition, not concerned with challengeable facts.

Deontic and epistemic modality

Thai has a number of modal auxiliaries that perform deontic and epistemic functions. Some, such as *khuan* and *dtong* (Thai equivalents of should and must) can be used with both deontic and epistemic meanings. Others, such as *aat* and *kong* (approximate equivalents of *may* and *might*) only have an epistemic function.

Table 9.1 below summarises Thai modal auxiliaries. In many cases, modals are used in conjunction with the challengeability marker *ja* discussed above.

Table 9.1 Thai modal auxiliary verbs (based on Iwasaki and Ingkaphirom, 2005)

Thai Modal Verb/particle	Function	Approximate English equivalent
Khuan (ja)	Deontic marker of low obligation, epistemic marker of low or weak commitment	Should
Naa (ja)	Deontic marker of low obligation, epistemic marker of low or weak commitment	Should
Dtong (ja)	Deontic marker of strong obligation, epistemic marker of strong commitment	Must
Aat (ja)	Epistemic marker of weak commitment	May/might
Kong (ja)	Epistemic marker of weak commitment	Is probable
Ja	Marks that a statement is challengeable	Will
Pen, dai	Potentiality markers – i.e. something is a potential event or is not a potential event	Can

The same methodology was applied to the study of the Thai verbal group as was used with English texts. Texts were typed into tables and verbal groups and their features were counted. The features were then divided by the total number of verbal groups involved in the count in each text to allow for comparison between texts of different length.

The statistical data for lexicogrammar is presented in the same format as that adopted for the study of English texts in chapter 7. The TWT group is compared to the EIT group and the EMT group, as was the case in chapter 7. The EIT group is preferred to the LIT group for the purpose of comparing means and testing the statistical significance for differences between means as it is considered that the lexicogrammatical features of their writing are likely, relatively speaking, to be less influenced by developmental factors than the LIT group. Given their extensive exposure to English over many years, the EIT group have more extensive and more stable lexicogrammatical resources than their LIT peers, and for this reason it can be argued that the relative frequency of items and constructions in their writing, where those frequency patterns parallel the patterns seen in TWT writing, can be more confidently attributed to cultural influence.

9.4 RESULTS OF THE STUDY OF TWT LEXICOGRAMMAR

Tables 9.2 and 9.3, below, present statistics for the frequency of the features of lexicogrammar highlighted above in TWT texts compared to those in EIT and EMT texts.

Table 9.2: The relative proportion of relational, material and mental processes used by the TWT, EIT and EMT groups

Feature	TWT Mean	EIT Mean	EMT Mean
Relating and existential processes			
The Perfect Teacher	0.29	0.49	0.39
Park Letter	0.25	0.34	0.35
Robot Progress	0.30	0.33	0.38
Material and behavioural processes			
The Perfect Teacher	0.56	0.23	0.30
Park Letter	0.50	0.39	0.37
Robot Progress	0.66	0.53	0.46
Mental processes			
The Perfect Teacher	0.15	0.21	0.22
Park Letter	0.20	0.18	0.19
Robot Progress	0.03	0.07	0.09

Table 9.3: The relative frequency of modal auxiliary verbs used by the TWT, EIT and EMT groups

Feature	TWT Mean	EIT Mean	EMT Mean
Overall Modal Verbs			
The Perfect Teacher	0.43	0.56	0.34
Park Letter	0.53	0.41	0.32
Robot Progress	0.34	0.26	0.29
Deontic Modals			
The Perfect Teacher	0.35	0.27	0.12
Park Letter	0.25	0.13	0.14
Robot Progress	0.07	0.05	0.04
Epistemic Modals			
The Perfect Teacher	0.00	0.06	0.03
Park Letter	0.06	0.09	0.08
Robot Progress	0.05	0.01	0.04
<i>Ja vs will + would</i>			
The Perfect Teacher	0.03	0.21	0.14
Park Letter	0.15	0.15	0.10
Robot Progress	0.11	0.13	0.11

The use of modal verbs with deontic and epistemic functions

The clearest pattern to emerge is that Thai writers writing in Thai use modal verbs with a deontic function more frequently than any of the groups writing in English, including fellow Thais. The difference was most marked between the EMT group and the TWT group on the Perfect Teacher and Park Letter tasks. The EIT group fell between the EMT and TWT groups in the frequency of deontic modals in the Perfect Teacher task, but was closer to the EMT

group than the TWT group in deontic modal frequency on the Park Letter task. All three groups were closer together in relative frequency of deontic modals on the Robot Progress task, though the TWT group still used modal verbs with a deontic function somewhat more frequently than the other two groups.

The TWT group used modal verbs with an epistemic function somewhat less frequently than either the EIT group or the EMT group on both the Park Letter and the Perfect Teacher tasks. On the latter, indeed, they did not use any modal verbs with an epistemic function. Again, trends on the responses to the Robot Progress task were reversed, with the TWT group using modals with an epistemic function more frequently than the EIT and EMT groups.

<ol style="list-style-type: none"> 1. ข้อคิดเห็นของดิฉัน : 2. ดิฉันคิดว่าข้อที่ 1 3. ไม่ควรที่จะสร้างทางลาดบริเวณสนามหญ้า 4. เพราะพื้นหญ้ามีความชุ่มชื้น 5. ถ้าเล่นสเก็ตบอร์ด 6. อาจทำให้ล้อมันติดกับพื้นได้ 7. ไม่ปลอดภัย 100 % 8. ทางที่ดีกว่าสร้างบนพื้นปูน 9. ถ้าต้องการเซฟ 10. ควรปูพื้นยาง 11. เพื่อป้องกันไว้ได้ใน ลานสเก็ตบอร์ด 12. ข้อคิดเห็นที่ 2 13. ฉันเห็นด้วย 14. เพราะการเล่นสเก็ตบอร์ดบนทางเท้ามัน อาจทำให้คนที่เดินเกิดอุบัติเหตุได้ 15. ดิฉันไม่เห็นด้วยกับข้อคิดเห็นที่ 3 16. เพราะการเล่นฟุตบอลเด็กวัยรุ่นส่วนใหญ่ นิยมเล่นกัน 17. น่าจะเพิ่มเวลาในการเล่นให้มากขึ้น 18. ข้อ 4 ฉันเห็นด้วย 19. เพราะเป็นการป้องกัน 20. ไม่ให้สุนัขหาย 21. และสุนัขจรจัดเพิ่มมากขึ้น 22. นี่ก็คือ ความเห็นของดิฉันค่ะ 	<ol style="list-style-type: none"> 1. My thoughts: 2. I think that the first point 3. (You) should not build a track on the grass area 4. because the grass has moisture 5. If you play skate boarding 6. (which) may make the wheels stick 7. (this) is not 100% safe 8. A way that is good, (you) should build it on a concrete area 9. If you want to be safe 10. (you) should lay a rubber sheet 11. in order to protect in the skateboarder area 12. The second point 13. I agree 14. because skateboarding on the path may make people who walk on the path have accidents 15. I do not agree with the third point 16. because playing football is popular with the majority of teenagers 17. (You) ought to increase the playing time. 18. The 4th point I agree with 19. because it is protecting 20. not allowing dogs to become lost 21. and stray dogs will increase 22. This is my view
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Figure 9.1: A TWT response to the Park Letter task (NT_4 Park Letter) highlighting **epistemic** and **deontic** uses of modal verbs

The topic I first wish to discuss is the skateboard ramp being built on the grassed area. If this proposal were to go through and become a reality, I doubt it would be a turn for the best. While I do admit that grass will act as a better buffer zone in the event of an impact (as oppose to concrete). On the other hand, I feel it will bring several new problems. Firstly, skaters **may** not be able to use it anyway since it is almost impossible to skate along grass, furthermore, it **may** pose an even greater hazard to people (hoping to enjoy the grassed area as well), since being hit by the flying skaters is a possibility. Clearly not enough thought has gone into this proposal.

NE_3 Park Letter

Figure 9.2: Excerpt from an EMT writer's response to the Park Letter Task

Figures 9.1 and 9.2 above illustrate both similarities and differences between the EMT and TWT writers' uses of modal verbs with an epistemic function and with a deontic function. Epistemic modal verbs are used by both writers in a similar way to express degree of likelihood in claims about possible outcomes of rule changes to the park. However, whereas the Thai writer deploys modal verbs with a deontic function to propose changes to rules, the English writer offers a critique of the rules but does not use deontic modal verbs to indicate what should be done as an alternative. The EMT writers, with the exception of one writer (NE_1, see text below in the section on *will* and *would*) tended to use verbal processes such as *recommend* or *suggest* to put forward any proposals they wished to make, as in the following excerpt:

I suggest that you build the skateboard ramp around some rubber tiles. (NE_4 Park Letter)

TWT frequency patterns of deontic modals on the Perfect Teacher task were similar to those seen in the Thai Immersion groups' English writing, that is, far more frequent than in EMT writing on this tasks.

Both TWT and Thai Immersion writers writing in English deployed modal verbs with a deontic function to generalize about the qualities of a perfect teacher more frequently than did EMT writers.

1. The perfect teacher in my ideal is (as follows)
2. A teacher **should** be a person who has patience with the students
3. Tries to create understanding with the students

NT_4 Perfect Teacher (TWT)

Another positive factor of a teacher is them listening to their students and being able to understand them and give elidgable advice. When students talk to their teachers about their various problems, I am sure that the teacher always has a sense of nostalgia and remembers when he or she were in the same position. Having a grown up to help you through school life when you need it, is truly amazing, much better than a hard and unemotional person.

NE_1 Perfect Teacher (EMT)

Firstly, some students said that the perfect teacher **should** be kind and be nice to the student, so the students would like them. Moreover, some said that teachers **should** listen to their students more. Furthermore, some of the students also says that the teacher **shouldn't** be too strict and **shouldn't** give out a lot of homework. Also, perfect teachers **should** have a nice looking face, so the student will have more concentrate at them more than look outside the class window.

LI_TW Perfect Teacher (LIT)

Figure 9.3: Excerpts from the LIT, EMT and TWT group responses to the Perfect Teacher task

The excerpts in Figure 9.3, above, illustrate the tendency for EMT writers to present generalizations in a way that appears somewhat less subjective than the Thai writers writing in both Thai (the TWT group) and English (the EIT and LIT groups). The use of a deontic modal verb such as *should* implies an attitude that can be sourced directly to either the writer or in the case of the LIT example, another group (*some students*). The EMT writer refers to “Another positive factor”, implying that he is discussing objective qualities of a perfect teacher rather than projecting attitudes as rules, as is the case when modal verbs with a deontic function are used.

ii. The use of *ja*, *will* and *would*

Comparing the frequency of the particle *ja* to the frequency of *will* and *would* combined in English texts written by the EIT and EMT groups reveals that frequencies were similar for the EIT, EMT and TWT groups on the Park Letter task, but that the particle *ja* was used very rarely in the Perfect Teacher task, and much less frequently than *will/would* combined in English texts by both the EIT group and the EMT group. The uses of *would* and *will* by the

three groups in the Park Letter task are illustrated in the text excerpts below (Figures 9.4, 9.5 and 9.6).

3. ผมว่า สิ่งที่คุณเสนอนั้น ยอดเยี่ยมมากเลยที่เดียว	3. I say (that) those things you recommend are excellent
4. แต่ว่าผมจะขอนำเสนอเพิ่มเติมซัก 2-3 อย่างได้ไหมครับ	4. But I will ask to recommend two or three more things if you don't mind
5. ก็คือว่าที่คุณบอกให้สร้างทางลาดบนบริเวณพื้นที่หญ้า	5. Namely, what you said about a path on the grass
6. ผมว่าคุณน่าจะสร้างเป็นสนามเล่นสเก็ตบอร์ดไปเลย	6. I say (that) you should build a skateboard park completely
7. จะดีกว่านะครับ	7. (It) will (be) better
8. และอีกอย่างคุณน่าจะอนุญาตให้สามาร เล่นกีฬาประเภท ลูกบอลได้ทุกๆ วัน ในช่วงปิดเทอม	8. And another thing, you should permit people to play all kinds of sport every day during term period
9. จะทำให้มีผู้มาใช้บริการสวนมากขึ้น	9. (It) will make people use the service in larger numbers

Figure 9.4: Excerpt from a native Thai response to the Park Letter task (NT_2)

In the examples from a native Thai writer writing in Thai, *ja* (translated as *will*) is used for two functions. In clause 4), it is used in conjunction with the word *kor* to make a request more tentative and thus more polite. In the other two instances, *ja* is used to denote the predicted outcome of rule changes. In each instance, the clauses containing *ja* follow clauses which include the modal verb *kuan* (translated as *should*).

The topic I first wish to discuss is the skateboard ramp being built on the grassed area. If this proposal were to go through and become a reality, I doubt it **would** be a turn for the best. While I do admit that grass **will** act as a better buffer zone in the event of an impact (as oppose to concrete). On the other hand, I feel it **will** bring several new problems. Firstly, skaters may not be able to use it anyway since it is almost impossible to skate along grass, furthermore, it may pose an even greater hazard to people (hoping to enjoy the grassed area as well), sicne being hit by the flying skaters is a possibility. Clearly not enough thought has gone into this proposal.

From NE_3 Park Letter

Pine parks' grass area was just renewed late last year and the regulation of skate ramps on the grass should not be put forward as it **will** eventually lead to in-fertile soil or destruction of the newly planted grass.

As an alternitive to your thoughtful concern, a suggestion that skateboarders should wear knee pads, helmets and skateboarding gloves when on the skateboarding ramp should be put forward.

Concerns of a new playground should also be put forward as the playground that is present for the children now is gradually breaking. Rust is also covering the old playground which is causing infected cuts among the children.

A sandbox should be put in the park as it **would** be a safe option for mothers that need to see what their children are doing every present moment.

From NE_1 Park Letter

Figure 9.5: Two excerpts from EMT responses to the Park Letter task

In the two examples above taken from EMT texts (figure 9.5), *would* is used in instances that can be understood as counterfactual, whereas *will* is used to demarcate future outcomes relating to the rules that have been proposed by the park manager, and are therefore seen as real rather than hypothetical. In the first example (NE_3), the writer marks the proposals as hypothetical both by using *would* and the subjunctive form of BE in the conditional clause attached to this main clause. The effect is to soften the criticism of the proposed rule changes. The following instances of *will* deal directly with predicted outcomes of the real proposals. In the second example, (NE_1), the use of *will* is similar to those described in the NE_3 text. The instance of *would* involves the outcome of a change to the park suggested by the writer, rather than by the park manager (see the writing prompt). Therefore, the situation can be viewed as hypothetical.

In the examples from the EIT group (figure 9.6 below), choice of *will* and *would* is more variable with respect to the functions these modals appear to perform. In the first example (EI_KN), *won't* is used for a predicted outcome and *would* is used in the clearly counterfactual situation of imagining what it might be like to be a dog. In the text by EI_VN,

however, the choice of *will* or *would* is not so clearly governed by the real/counterfactual distinction. The writer instead appears to use *will* in main clauses and *would* in subordinate clauses following *because*. Similarly, EI_EN seems to use *would* in main clauses attached to conditional subordinate clauses. However, these conditional clauses are not marked as counterfactual through the use of past tense. Neither of these instances are the clauses marked by *would* distinctively counterfactual in nature.

On the other hand, I disagree that the ball games are only allowed at weekend. The purpose is that if students from high school are very stress from having exams and the only way to decrease their stress is to play basketball, they won't be able to do it because it's a school day. I also disagree that dogs should be kept on leads at all time because dogs have the right to move freely. How would you feel if you were to be kept on leads at all times? You wouldn't feel comfortable and so do dogs. Dogs can walk, breath, eat, smell, see and hear just like humans so why should dogs be kept on leads at all times when they don't want to.

From EI_KN Park Letter

A skateboard ramp is built on the grass area. Firstly, I think this is not a good idea, because the skateboard ramp would eat the grass area where it is normally be a peaceful place to go. As a result for building the skateboard ramp, most of the people that usually go there are not there anymore since the sound of the skateboarder appears continuously and also the sound that the skateboard made. However, there is a way to solve this, you could just buy a small land just the size of skateboard ramp. This will make the skateboarder still happy and especially other people will also be happy.

Skateboarding is no longer allowed on the path. From my view, I feel happy that there will be no accident appear by the skateboarder crash someone anymore, apart from bigginers skate boarder because it would be hard for them to play on the ramp straight away. This could be solve by making a concrete flatland for them.

From EI_VN

Dear Mr Williams,

I am writing this letter in respond of the proposals at the park. In the proposals it says that: a skateboard ramp is built on the grass area, skateboarding is no longer allowed on the paths, ball games are only allowed at weekends and dogs should be kept on leads at all times.

I agree with the dogs rule because if the dogs is not on lead and it just get hyperactive somehow it can attack other people and we won't have any control of it but if we have them on lead we can at least pull them.

Next, with the skateboarding rules, in my opinion I think this is quite a good idea because if they fall down on the grass it would be less painful than on the path. Also, if they skate on the path serious accident could happen if they can not stop and crush into other people; both of them will be in hospital for a long time.

Lastly, I strongly disagree with the ball game rule. Because ball game are good for exercising and somebody don't have time to come on weekend they won't be able to play with other people. What's wrong with playing ball game on weekdays?

In conclusion, these rule need more consideration. You should ask villagers for their opinion for these rule. If the rule do not fit their wants, nobody would use the park and that's not good because the park is the place where everybody spend time toget and enjoy themselves.

From EI_EN

Figure 9.6: Excerpts from three Early Immersion responses to the Park Letter task showing use of *will* and *would*

This analysis suggests that, although constructions involving *would* are used by all members of the EIT group, the distinction between real and counterfactual situations remains problematic for at least some of these writers. Both *will* and *would* are used in some instances where *ja* would be appropriate in Thai, and *would* seems to emerge as an alternative to *will* (and *ja*) in some linguistic contexts.

Regarding the question as to whether Thai writers employ true counterfactual reasoning in their accounts, clearly, some EIT writers do this. It is interesting to note, however, that there are no clear examples of counterfactuals with unreal conditions in the native Thai texts. This may, in accordance with the work of Bickner and Peyasantiwong (1988), suggest that Thais are less inclined towards the expression of counterfactual reasoning of this kind in their writing. However, there is enough evidence in the writing of EIT learners to suggest that they can learn how counterfactual conditional structures with *would* are used in English.

iii. The frequency of material and behavioural processes compared to relational processes

TWT writers used material and behavioural processes more frequently than any of the groups writing in English, when compared to the frequency of relational and existential processes. The differences were most marked on the Perfect Teacher task. Comparing the EMT group to the TWT group, the differences between these two groups reach statistical significance on the Perfect teacher task and approach statistical significance on the other two tasks. In other words, the TWT group show the *reverse* trend to that of the Thai Immersion groups writing in English, particularly the EIT group, who used relational processes more frequently and material processes less frequently than the EMT group.

<ol style="list-style-type: none"> 1. A teacher should (be) a person who has patience with the students 2. Tries to create understanding with the students 3. Help recommend and be an adviser for students 4. Listen to the thoughts of students 5. Kind to some extent 6. when (students) play around 7. or make fun activities together
NT_3

Figure 9.7: Translated excerpt from a TWT response to the Perfect Teacher task divided into numbered clauses

<ol style="list-style-type: none"> 1. Firstly, and one of the most important reasons, teachers should be kind to students. 2. If a teacher is not kind, 3. some students will not like the teacher and would not make them perfect. 4. Sometimes a teacher should be strict, 5. for example when its time to practise for an exam 6. they should be strict. 7. Other times, they shouldn't be too strict, 8. otherwise some students will think that the teacher is very unfriendly.
LI_TW

Figure 9.8: Excerpt from an LIT response to the Perfect Teacher task divided into numbered clauses

Figures 9.7 and 9.8 above present excerpts from TWT and LIT responses to the Perfect Teacher task, and provide an illustration of the pattern in the statistics. Thai immersion writers writing in English (EIT and more proficient LIT such as LI_TW) make relatively frequent references to qualities, often expressed through predicative adjectives. Thai writers writing in Thai, in contrast, refer more frequently to behaviours and thus use material and behavioural processes more frequently than relational processes. This seems to rule out cultural influence as an explanation for the relatively frequent use of relational processes by Thai immersion writers writing in English. (NOTE: Thai does not use BE in predicative adjective clauses, but an 'inherent BE' was counted when such clauses were used so that the groups could be compared).

9.5 THE RHETORICAL STRUCTURE OF TWT TEXTS

The primary focus of these analyses is to identify features that appear to characterize Thai writing in Thai and to compare the English writing of the other groups with respect to these particular features. The approach taken is primarily descriptive rather than quantitative,

although some descriptive statistical evidence is also provided where it is considered appropriate. Given the objective is to identify those features of Thai rhetorical structure which may be characteristically Thai, and given the relatively small sample size, such an approach is justifiable. Indeed, some published research has involved the careful study of a single exemplar text from a particular cultural group (e.g. Hinds, 1990). It is, however, acknowledged that conclusions drawn from such a limited data set and such an approach must be tentative and will warrant further investigation if they are to be more confidently confirmed.

The presentation of results begins with an overview of the whole text schemas deployed by writers before describing in detail some of the features of these texts and comparing the rhetorical structure of TWT texts to those of the other groups. Two complete RST analyses are presented, the first from the Park Letter task and the second from the Perfect Teacher task. Texts written in response to the Park Letter and Perfect Teacher prompts are focused on as the Thai writing in English on these tasks diverged significantly from the EMT writing, and it is therefore important to consider whether some of the features seen in the English writing of Thai learners is also present in Thai writing.

A number of features identified in the Thai texts are examined and compared to rhetorical structures used by the three groups writing in English.

The texts were shorter than those of the other three groups and simpler in their structure. The mean rhetorical depth of texts written for all the tasks was less than 3 levels of structure.

Perfect Teacher task

Only 4 TWT participants completed texts involving continuous discourse comparable to the texts written in English by Thai and EMT participants. The others responded to the prompt by writing numbered points listing the attributes of a perfect teacher. The four texts that responded with continuous discourse were selected for the study. All four of these TWT texts were organized around a simple *elaboration* schema as illustrated in figure 9.9 below.

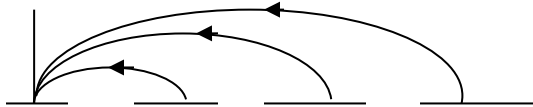


Figure 9.9: Rhetorical structure of TWT group Perfect Teacher texts

The nuclear segment was a statement to the effect that the writer had some thoughts concerning the characteristics of a perfect teacher. The satellite segments comprised details of these characteristics.

Park letter task

TWT Park Letter texts were also, in most cases, organized around a simple *elaboration* schema (figure 9.10).

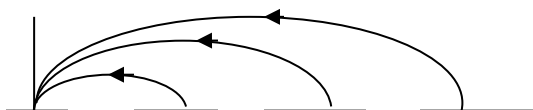


Figure 9.10: Rhetorical structure of TWT group Park Letter texts

In one case, the text lacked any introductory segment but included a conclusion expressing the overall purpose of the writer and the text. It is therefore better characterized by the schema below (figure 9.11).

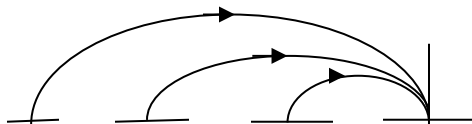


Figure 9.11: Rhetorical structure of TWT group Park Letter text with nucleus at the end of the text

Robot Progress task

The Robot Progress texts were, once again, relatively simple and at the highest level were, either *solutionhood* (1 writer), *elaboration* (3 writers), or *conjunction* (1 writer) (figure 9.12).

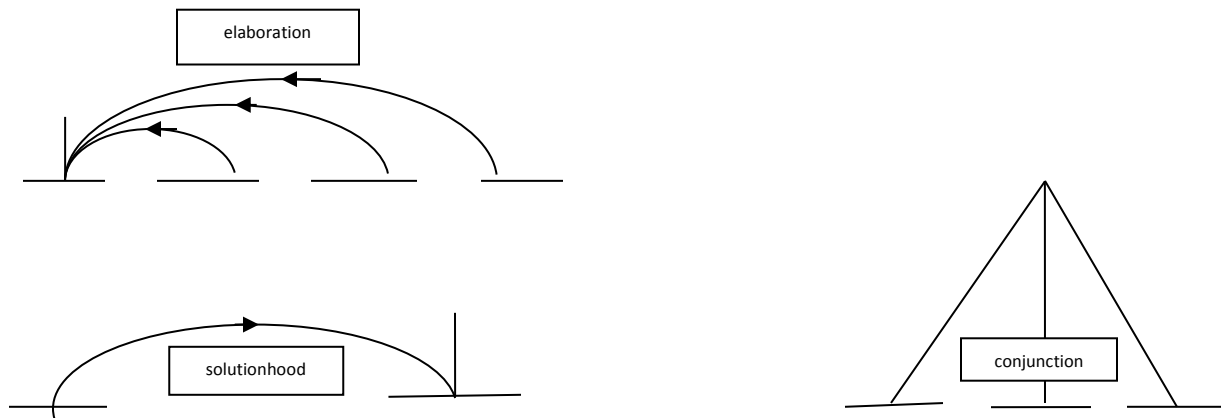
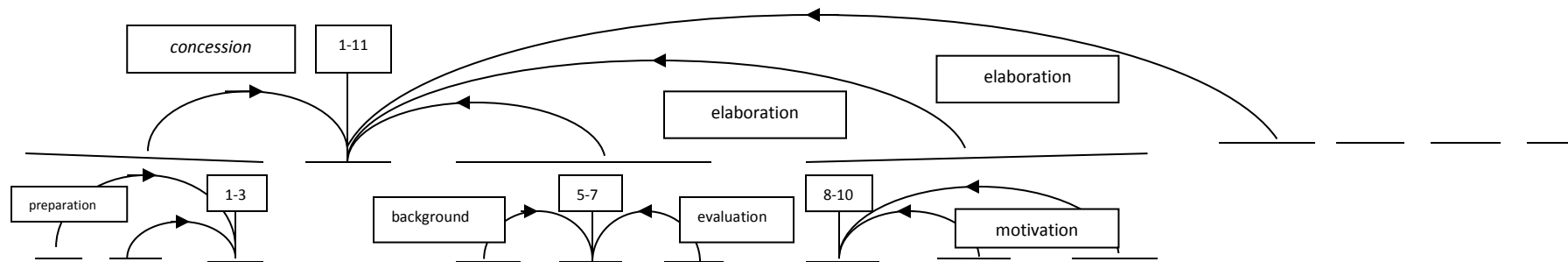


Figure 9.12: Rhetorical structures of TWT texts on the Robot Progress task

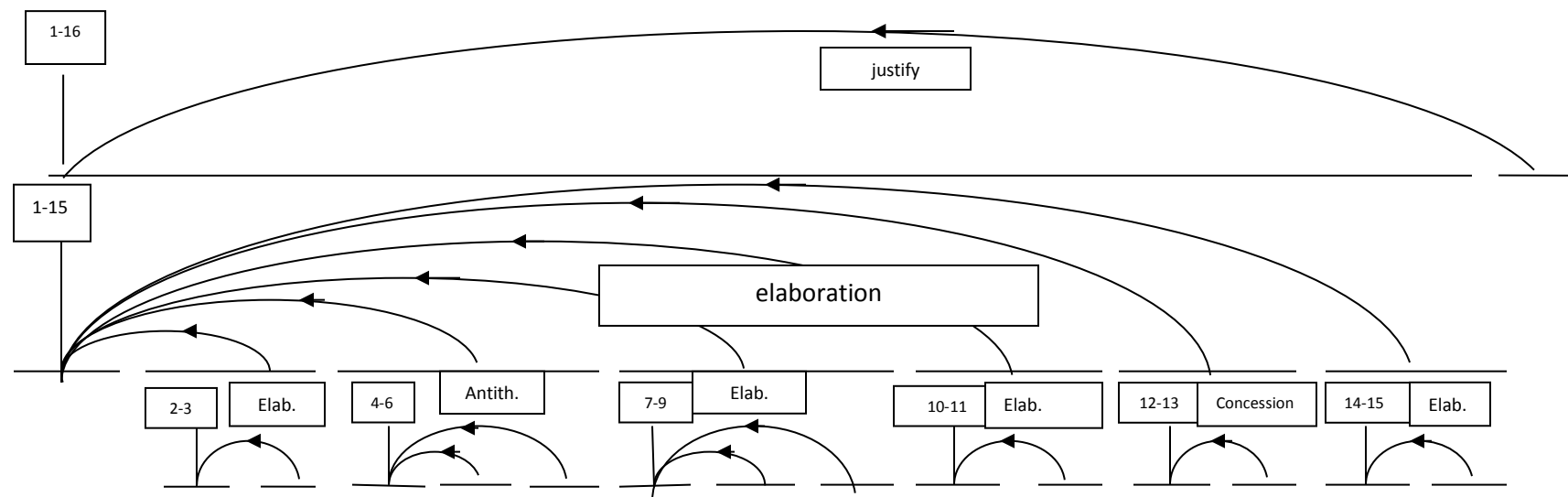
For the most part, the texts written in response to all three prompts were characteristically simple when compared to texts written by all groups in English.



- | | |
|---|--|
| 1. Dear Mr Williams | 8. And another thing, you should permit people to play all kinds of sport every day during term period |
| 2. Good day Mr Williams | 9. (It) will make people use the service in larger numbers |
| 3. I say (that) those things you recommend are excellent | 10. and will make the community have people with better health |
| 4. But I would like to recommend two or three more things if you don't mind | 11. And please build a clinic to look after people who are injured |
| 5. Namely, what you said about a path on the grass | 12. So please be aware of my thoughts |
| 6. I say (that) you should build a skateboard park completely | 13. Good day |
| 7. (It) will be better | 14. With respect... |

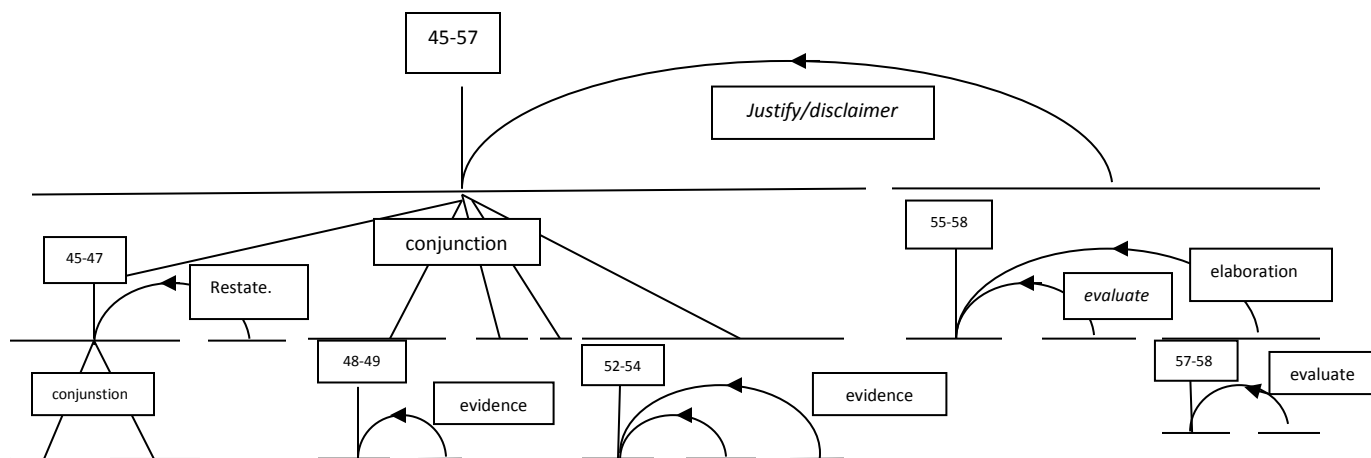
Translation of NT_2 Park Letter

Figure 9.13: RST diagram of a TWT writer for the Park Letter task (NT_2)



1.A perfect teacher in my view	9. Little homework only one piece at a time (for) many marks
2. Is (one that) must understand children	10. The teacher should be a teacher and a friend
3. understand the thoughts of the children he teaches	11. Give advice (that advises) the students
4. is prepared to listen to the thoughts of the children	12. Should not be too strict
5. Not make a favorite of one person	13. But must make children stay within the rules
6. Not hit or punish while not listening to the reasons of that person	14. and teachers should make students feel trust
7. And should teach a little	15. and are brave enough to seek advice on various issues
8. summarizing briefly and in a simple way	16. This is a perfect teacher in my thinking

Figure 9.14 RST Diagram of a translated TWT response to the Perfect Teacher task (NT_2)



45. In my conclusion, I think I like the teacher that very care about the student.

46. In addition, teachers must make student laugh, make student happy, make student think that this is the perfect teacher that I never have.

47. They should (care) about their student,

48. the teacher should make their student not very think that they do something wrong

49. because that will make student very upset about it.

50. Moreover, the teacher should listen to the student ideas or listen when student ask question.

51. Furthermore, teacher should make the student think that we are family.

52. Also teacher should not too strict

53. because it will make student scare

54. and it will make student don't want to talk or learn with you.

55. This is was(what) I think about perfect teacher must be like,

56. and I wish that in this world should have perfect teacher like this.

57. It's not very serious that it will have just 1 people in the world that be the perfect teacher like I said.

58. But I hope that it has.

Figure 9.15: The conclusion from an LIT Perfect Teacher text (LI_PK)

9.6 DISTINCTIVE FEATURES OF TWT RHETORICAL STRUCTURE AND PERSUASIVE STRATEGIES

The overall structure of the TWT texts further demonstrates the relative simplicity of these texts (see figure 9.13, above). Close examination of the texts written in response to the Perfect Teacher and Park Letter prompts does, however, highlight some features within these texts that stand out. These features are illustrated by reference to the RST diagrams for two whole texts, presented above (figures 9.13 and 9.14), and other examples of similar features within TWT texts written by other participants. The features are compared and contrasted with similar features in texts of the EIT, LIT and EMT groups writing in English.

Whole texts written in Thai compared to conclusions written in English by Thai writers

One distinctive feature noted in the RST study of English texts presented previously was the characteristic structure of whole texts written in response to the Perfect Teacher task. Thai writers of both groups showed a tendency to examine the issue from the perspective of other general classes of people, such as “*some students*” before presenting their own opinions in the conclusion. The whole text structures of the TWT group were simpler, presenting only the views of the writer. Although the TWT texts are quite different in their overall structure to texts written by the two Thai immersion groups, the whole texts of TWT writers share features with the conclusions written by the Thai immersion groups writing in English, in which Thai learners stated their opinions after exploring the views of others.

Figure 9.14 above presents a TWT text, and figure 9.15 the concluding segment of a response to the Perfect Teacher task written by a Late Immersion Thai writer. Both texts present the views of the writer as a series of points framed by a statement that explicitly identifies the points as the views of the writer. The TWT text begins with a statement that, translated directly, reads “*A perfect teacher is*”. Of the two Thai equivalents of the verb BE, *kue* is selected, which is used in identifying clauses. In other words, the whole texts functions as a kind of “macro-clause” identifying the writer’s vision of a perfect teacher. In the RST analysis, the statement “*A perfect teacher is*” was analyzed as the nucleus, and what follows, the specific details of the perfect teacher according to the writer were

identified as satellites. The relationship is read as one of object::attributes (Taboada, 2014,) an example of *elaboration*. The concluding statement from text EI_PK Perfect Teacher lacks an initiating statement and the series of points identifying the writer's view of a perfect teacher are therefore related through *conjunction*.

Justify/disclaimer relations in concluding statements

TWT	EIT and LIT
1. <i>This is the perfect teacher in my thinking. (NT_2 Perfect Teacher)</i>	1. <i>This is was(what) I think about perfect teacher must be like, (LI_PK Perfect Teacher)</i>
2. <i>This is my view. (NT_4 Park Letter)</i>	2. <i>All of this are my idea to present you (LI_PG Park Letter)</i>
	3. <i>In my opinion,... However different people might have different ideas from me (LI_TW Perfect Teacher)</i>
	4. <i>In conclusion, this is my perspective to be a perfect teacher. On the other hand, this is my point of view, maybe it is opposite to the other students. (EI_VN Perfect Teacher)</i>

Figure 9.16: justify/disclaimer segments from the TWT and Thai Immersion groups writing in English

Both the LIT conclusion and the TWT text include statements that underscore the fact that the opinions are those of the writer. It was suggested in the analysis of texts written in English that such statements may act as disclaimers that reduce any pressure on the reader to agree with the writer's views. Figure 9.16 above shows all such statements used by either the Thai writers writing in English or the Thai writers writing in their native language. The statements vary from those simply stating the fact that the views expressed are those of the writer to some which explicitly state that others may not share these views. The rhetorical relationship between these statements and their nuclei is captured by the more general relation *justify*, where the satellite serves to induce the reader to accept the right of the writer to present the material in the nucleus. It is suggested that *justify/disclaimer* is a subtype of the more general *justify* relation.

Explicitness and the use of persuasive relations on the perfect teacher task

One feature of the Perfect Teacher texts written by the TWT group was the relative lack of persuasive rhetorical relations (Azar,1999). Relations such as *evidence*, *justify*, *motivation*,

concession and *antithesis* involve juxtaposing a satellite to a nucleus in order to affect the reader's thinking or behaviour, and are therefore relatively frequent in discourse involving an element of overt persuasion (Azar, 1999). Relatively few such relations were present in the TWT perfect teacher texts. When TWT writers such as the one responsible for the text in figure 9.14 added extra information regarding the characteristics of their hypothetical perfect teacher, it invariably involved subject matter relations (Taboada, 2014) such as *elaboration* and *purpose*, designed to specify ideas in greater detail rather than to persuade a reader that the ideas are valid. In the example in figure 9.14, the only relations that might be considered persuasive are *antithesis* and *concession*. The former, by stating what something is not, acts as much to clarify the writers position as to persuade the reader adopt a similar position; the latter might be considered a face saving move as much as a persuasive relation, since it indicates the writer's willingness to consider the validity of alternative positions that might be held by a reader. The relative lack of relations such as *evidence* associated with overt persuasion suggests that these writers may have identified the task as one involving the simple statement of characteristics rather than one necessitating convincing a reader that such views are valid.

Another way of characterising the relatively shallow rhetorical structures and the lack of persuasive relations in general is to consider them as marking a lack of explicitness in terms of supporting details in these texts. As a general distinction between the Thai Immersion responses to the Perfect teacher task and the texts written by EMT writers, the former were more explicit about their own views: For the most part, EMT writers developed paragraphs within the body of their texts giving quite specific detail about personal views and information supporting those views. Thais writing in Thai supplied relatively little information in support of their views; similarly, Thais writing in English, when compared to EMT writers, supplied less detail in support of the views expressed.

The characteristic structure of clause packages in the Park Letter task

TWT writers frequently deployed a characteristic pattern involving a preparation or background relation preceding the main nucleus of the clause package. This is illustrated below (figure 9.17).

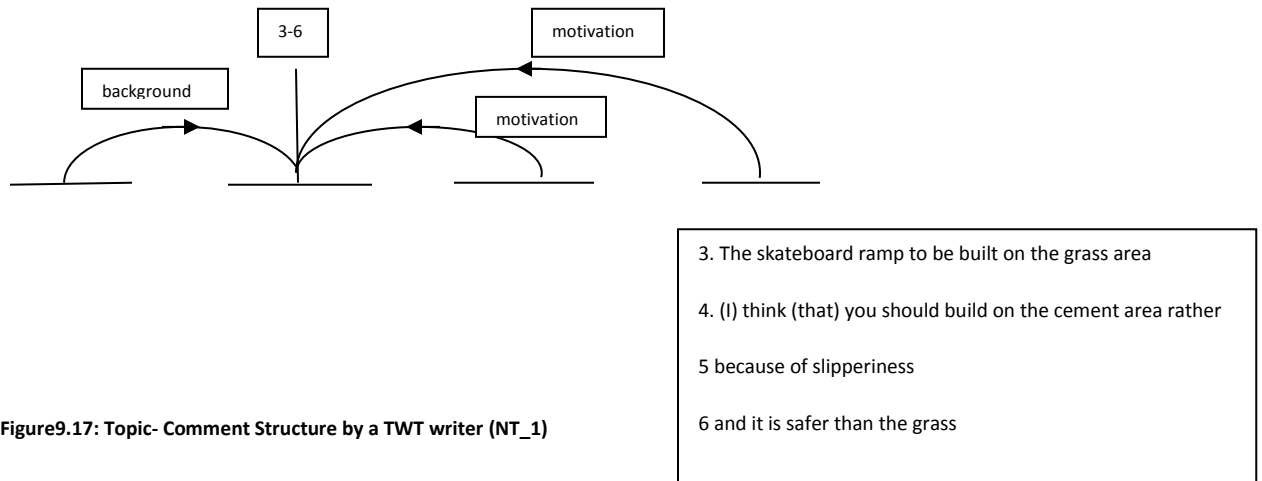


Figure9.17: Topic- Comment Structure by a TWT writer (NT_1)

In Thai texts, the initial segment is realized grammatically as a nominal group:

Thai 3. ทางลาดสำหรับการเล่นกระดานสเก็ตจะถูกสร้างขึ้นในบริเวณพื้นที่หญ้า

Transliteration *tanglat samrap gaanlen gradaan skate ja tooksang keun ny boriwain peun yaa*

Direct translation Way for playing skateboard will be built up in area grass

This topic-comment structure with the topic introduced by a nominal group occurred to a greater or lesser extent in all the TWT texts. Similar structures were also present in the English writing of some of the Thai immersion writers writing in English (figure 9.18).

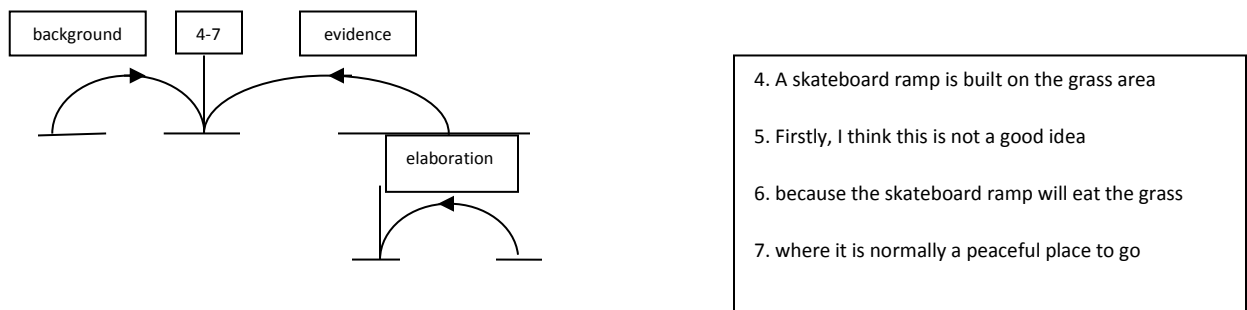


Figure 9.18: Topic- Comment Structure by an EIT writer (EI_VN)

Six texts out of a total of ten written by the EIT and LIT groups included at least one structure similar to the above.

Some EMT writers (2 out of 5 participants) deployed similar organizational strategies, but with more regular lexicogrammatical marking of the topic, as the example below (figure 9.19) illustrates.

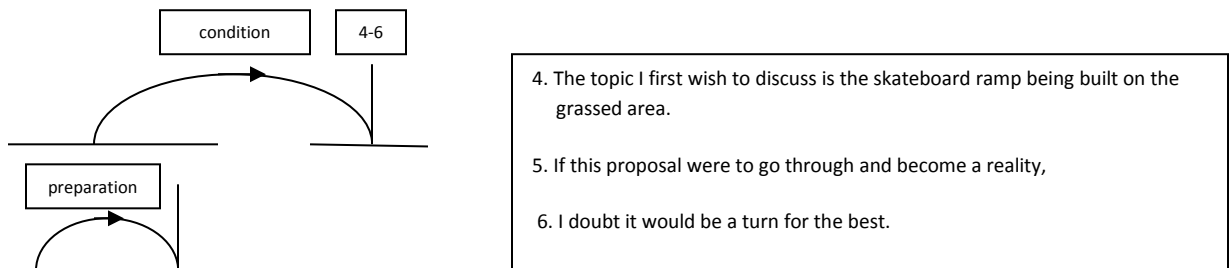


Figure 9.19: Topic-Comment Structure by an EMT writer (NE_3)

In the EMT text, the topic is explicitly labelled using the phrase *“The topic I first wish to discuss”*. Given that English is not characterized by topic-comment structures, such explicit marking is necessary. Some of the Thai writers writing in English, including the participant who wrote the text segment in figure 9.17 above, did not deploy such labelling.

Softening criticism by complementing the rule changes before criticizing them

The Park Letter task invited writers to discuss proposed rule changes for the use of a public park. Two out of five TWT responses to the task, including the whole text above, began their discussion of the proposal for new park rules by complementing the park manager on the changes, before proceeding to find fault with many of the proposals. This pattern was also evident in 3 of the Thai immersion texts but was not present in any of the EMT texts analysed, although one EMT writer began with a somewhat different complement, commenting on the excellent job the park administration had been doing before discussing the rule changes.

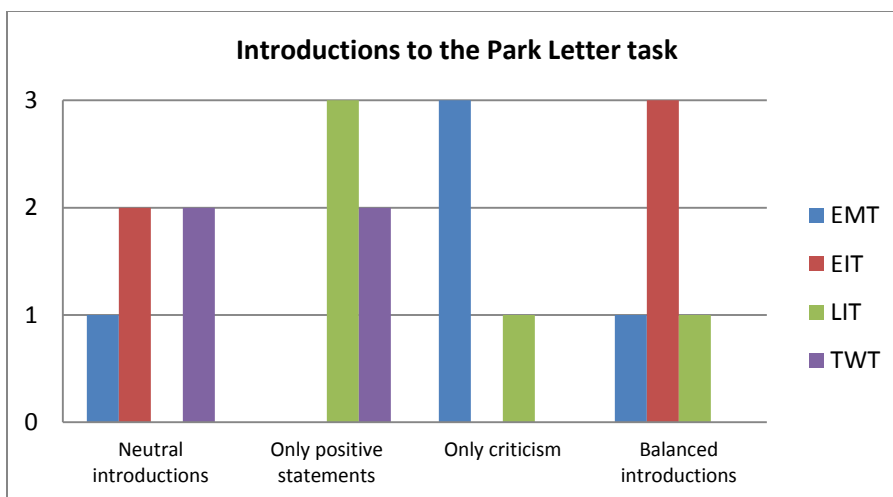


Figure 9.20 The frequency of various beginnings to the Park Letter task by the four groups in the study. The vertical axis represents number of participants

Figure 9.20 above shows the frequency of various beginnings to the Park Letter task used by the four groups in the study (see Appendix viii. for examples of the classification of opening clause packages). Neutral introductions simply showed that the topic of the park rules was to be addressed in the text but expressed no attitude towards the proposed rules. Positive introductions expressed either a positive attitude towards the rules, but no negative attitude. *Only criticism* refers to introductions that express a critical point of view without making any positive statement about the rules. Balanced introductions express the notion that there are both good and bad suggestions in the rule changes put forward. Finally, the number of participants that began the body of their text with positive comments is presented.

The graph demonstrates that EMT writers were more likely to state a negative position in their introductory paragraphs than were Thai writers in any of the groups. Similarly, no EMT writers stated only positive attitudes towards the rules in their introductory text, whereas some Thai writers, including the Thai text from a TWT writer presented above, did.

The choice of ideational evidence vs emotional appeals

Given the relatively brief responses by the TWT group to all three writing prompts, and the lack of persuasive relations in the Perfect Teacher texts by this group, a quantitative comparison of the material used to support assertions by the four groups is difficult.

However, all members of the TWT group addressed the proposal on the prompt of Park Letter task to only allow ball games at weekends, a topic that was also addressed by some or all members of the three groups writing in English. This therefore presents an opportunity to compare the approach taken by writers to persuade their readership.

All writers who addressed the topic from each of the four groups in the study agreed that the suggested rule change regarding the banning of ball games during the week within the park was a bad idea. There was, however, some systematic difference in the material used to support this assertion. Figure 9.21 shows the relative frequency for various support material deployed by participants in the four groups. Material deployed to persuade the reader was classified according to the four categories in figure 9.21. The total number of times a category occurred in the writing of a given group was then divided by the total number of participants who addressed the topic in that group (see Appendix vii).

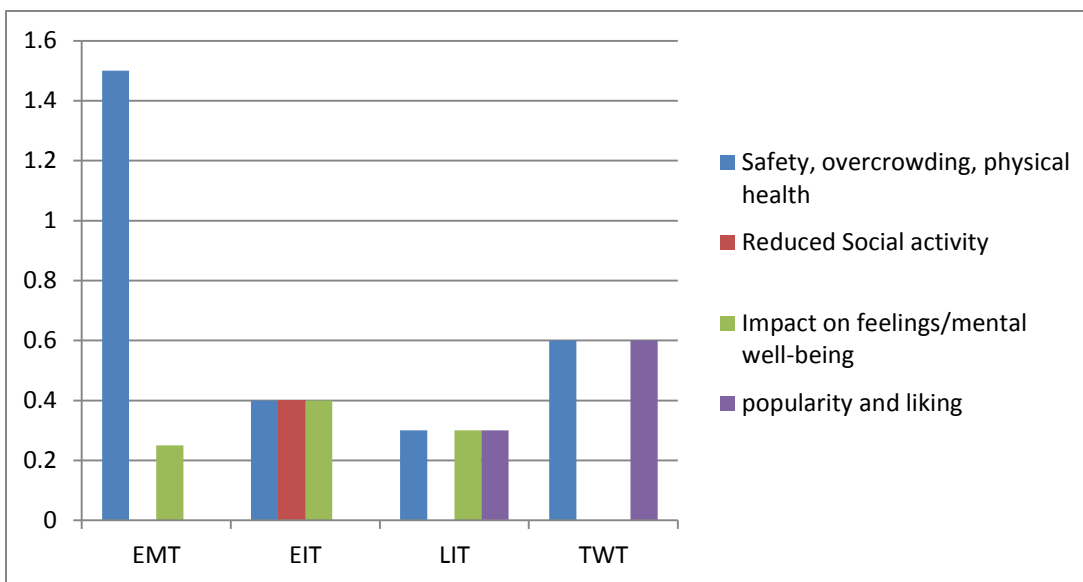
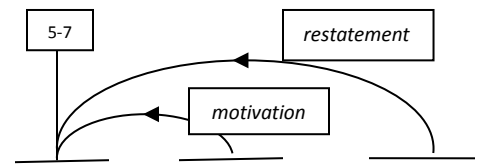


Figure 9.21: The relative frequency of different support material for ball games topic as mean frequency per participant in each of the four groups.

The most frequent category of supporting material provided by EMT participants involved reference to safety issues, overcrowding and the effects on physical health of only allowing ball games at weekends. Thai groups were more varied in their selection of evidence and included references to the popularity of the ball games with teenagers and also to the importance of the park for social activity. The examples below (figure 9.22) are taken from

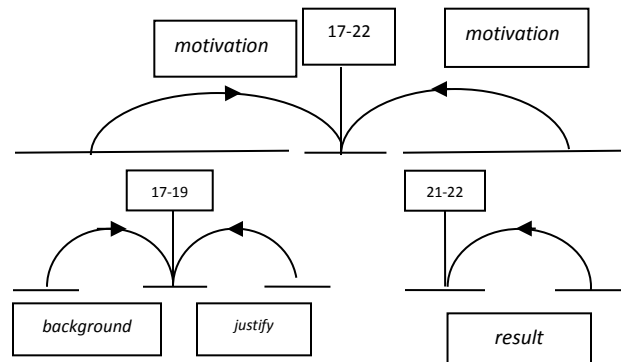
the TWT, LIT and EMT groups. The two Thai texts use statements concerning the personal feelings of park users as satellites in a *motivation* relation with nuclei that state the park administrator should not adopt a rule proposed to limit ball games to the weekend. The EMT writer (NE4) deploys a causal chain involving the increase in park attendances at weekends leading to safety concerns at weekends in a *justify* relation to the nucleus that states his disagreement with the rule.

5. (You) should allow playing of football throughout the week
 6. because on the whole people like playing these ball games
 7. Therefore (you) should (allow) playing every day



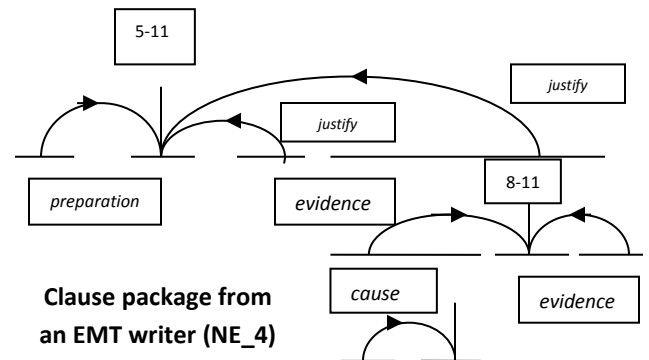
Clause package from a TWT writer (NT_3)

17. However, there are some request about the ball games that they are allowed only at weekends.
 18. I am not quite sure of the reason why they are not allow to do ball game
 19. when there are already some space left that no body use for anything,
 20. so my idea is to ask you to think again carefully about this
 21. because some young men are not like this rule at all
 22. and there might be a negative effects follow by this.



Clause package from an LIT writer (LI_TW)

5. The first thing I noticed about your new rules is that I don't get why ballgames are only allowed to be played on weekends.
 6. I disagree with this new rule
 7. because there is no difference between playing on a school day or on a weekend.
 8. On weekends there is no school
 9. so your park will be flooded with people trying to play football or basketball.
 10. This increases the danger risk
 11. because there would be more people on one field or court.



Clause package from an EMT writer (NE_4)

Figure 9.22: Examples of the approach writers from different groups took to persuading the reader that the rule banning ball games at weekends was not a good idea

9.7 SUMMARY – TWT group compared to groups writing in English

Processes

- Unlike the EIT group writing in English, the TWT group used material and behavioural processes more frequently than relational processes on the Perfect Teacher task. In this respect, their writing was similar to that of the LIT group and the EMT group.

Modal verbs

- TWT writers, like Thai immersion writers writing in English, used modal verbs with a deontic function more frequently than EMT writers. The difference was most marked on the Perfect Teacher task.
- Epistemic modal verbs were used either less frequently (on the Perfect Teacher task) or at approximately equal frequency by TWT writers and EMT writers.
- TWT writers rarely used the challengeability marker *ja* on the Perfect Teacher task. The frequency of *ja* on the Park Letter task was similar to the combined totals of *will* and *would* used by EIT writers, and higher than the frequency of combined *will* and *would* by the EMT group on this task.
- There were no clearly counterfactual statements in TWT texts. Close inspection of the use of *would* by Thai immersion writers writing in English showed that some used it as a marker of hypothetical situations, but others seemed to use *would* rather than *will* according to other rules relating to the grammatical context.

Rhetorical Structure

- The texts written by the Thai group writing in Thai were shorter and rhetorically simpler than the texts written in English by the Thai immersion groups and the EMT group.
- The characteristic whole-text structure of responses to the Perfect Teacher prompt seen in the Thai Immersion groups writing in English was not seen in the TWT texts. However, TWT Perfect Teacher responses did resemble the conclusion of these texts, where the writer presented their views.
- Some TWT and Immersion writers writing in English introduced topics on the Park Letter task in a manner that was somewhat different to the approaches used by EMT writers. Specifically, they used a statement or nominal group marking a new topic, but without any direct label that the clause or nominal group was functioning to introduce a new topic, such as *regarding*.
- The TWT texts used a more limited variety of relations in texts with an element of overt persuasion than did the Thai groups and the EMT group writing in English. This feature was, to some extent, shared with Thai Immersion writers in their responses to the Perfect Teacher task, where writers gave fewer details to support their own views, but rather listed them as points in their conclusion.
- TWT writers and some Thai Immersion writers writing in English used some features that could be classified as more indirect, specifically, statements that formed *justify/disclaimer* relations with their texts and introductions that avoid criticism of proposed rule changes in the Park Letter task.

Indirectness and the approach taken to persuasion

- TWT writers and Thai Immersion writers showed a greater tendency to begin responses to the Park Letter task in a positive way or a balanced way, acknowledging both positive and negative rules. EMT writers were somewhat more likely to begin these texts by making a negative statement about the proposed changes to the rules.
- TWT and Thai immersion writers writing in English were more varied in the material chosen to support a negative stance on one proposed rule change on the Park Letter task. They included material such as the preferences of people and reduced opportunities for social contact that EMT writers did not use.

Section 6: Discussion and Conclusions

Chapter 10 Discussion

10.1 INTRODUCTION

Following the presentation of the results, this chapter returns to the two interpretive questions asked by the study, which read as follows:

The developmental question

1. How does the academic language knowledge of Thai learners in an English-medium international school develop over time?

The cultural question

2. To what extent and in what ways does Thai culture influence the writing of Thai students in English-medium education in Thailand?

This chapter offers a synthesis of the results in order to address these two questions, and discusses how the findings of the study may be applied. The chapter begins by examining the language knowledge of Late Immersion Thai learners before considering how these learners differ from their Early Immersion peers, and what this suggests about the developmental trajectory of important features of academic language. Following this, the language knowledge of Thai immersion learners is discussed in comparison to that of EMT learners from the perspective of the development of resources. The chapter continues with an examination of the complexity dimension in the discourse of all the groups, relating it to Biber's (1988) dimensions of the English language, and a discussion of the development of rhetorical knowledge. The discussion of language development concludes with the presentation of a model of the developmental trajectory of key aspects of language knowledge for Thai Immersion learners.

Following this discussion of language knowledge from a developmental perspective, the second question regarding the influence of Thai culture on the English language knowledge of Thai learners is examined. This discussion focuses on three broad aspects of potential cultural influence: i) The notion of indirectness and reader responsibility and how these

may influence the English writing of Thai Immersion students; ii) how culture may shape the approach to persuasion taken by Thai Immersion writers; iii) the influence of culture on the use of modal verbs.

An important goal of any study such as this is to reach an understanding that is of practical value to teachers and curriculum planners. Insights gained into the teaching and assessment of Thai learners, and ESL learners more generally, are examined at the end of this chapter.

10.2 THE INTERPRETATION OF FREQUENCY VARIATIONS

It is well established that the frequency of various components of lexicogrammar varies systematically between texts, and that these variations can be related to factors such as the writer's purpose, the nature of the relationship between the speaker/writer and his audience, and the production constraints involved (Biber, 1988). Systematic variation in the frequency of lexicogrammatical items and constructions between groups of writers of similar age writing the same task with the same audience and the same production constraints may, on the other hand, indicate differences in knowledge of language between those groups. It is conceivable, for example, that a form may not be deployed because the writer does not know how to construct it and does not fully understand its semantics, or because the writer has a different understanding of the pragmatic constraints on the use of a particular construction or item and does not identify the context as one in which it is appropriate. A cause related to the latter might involve understanding of the genre within a non-English cultural framework, resulting in the expression of a somewhat different set of meanings, and a text with a somewhat different tenor.

An important question to consider is why constructions such as passive verbs may occasionally appear in the language of a Late Immersion learner, but be less frequent in LIT writing than in the more advanced language of an EIT or EMT writer. The usage based model of language development (Tomasello, 2003; Diessel, 2004) suggests that constructions are learned, initially, as concrete items with a limited range of functions.

Over time, as a learner encounters the construction in a wider range of contexts, knowledge of it becomes more abstract and the construction is used with greater flexibility in its full range of contexts. This model of language learning and language knowledge offers an explanation as to why constructions may initially appear in learner language but be less frequent in the language produced by less advanced learners than more advanced learners. Learners at an earlier stage of development may begin to use a form in a limited range of contexts; more advanced learners may use it in its full range of contexts.

The lack of an expected form or its relative infrequency in a particular context may, therefore, conceivably be attributable to the developmental stage of the learner with respect to the particular construction. Alternatively, it could be the result of genre knowledge influenced by the first culture, or conceivably, biases in cognition related to culture of the kind highlighted by Nisbett (2003). Bearing these facts in mind, it is important to approach differences between groups with caution and common sense. When Thai writers in the LIT group use a form less frequently, and when they do use it, less accurately, than EIT writers, it seems reasonable to suggest a developmental cause. LIT writers may, similarly, use certain forms more frequently than other groups because they have a more limited productive repertoire. However, when EIT writers use particular forms more frequently than EMT writers, and the “limited repertoire” explanation does not seem satisfactory, it is reasonable to consider the influence of first culture as a possible cause.

10.3 THE DEVELOPMENT OF LANGUAGE KNOWLEDGE

i. The developmental level of Late Immersion Thai students

Understanding the developmental level achieved by Late Immersion Thai students is of some interest due to the practical implications it holds for decisions concerning the admission and subsequent support of pupils entering English-medium education. It speaks to the efficacy of language learning in the kind of immersion environment provided by an educational institution such as an English-medium international school in Bangkok, where the majority of pupils share a second language that is not English. It also offers, in conjunction with results from the EIT group, some indication of the relative advantages or

disadvantages resulting from a primary education in a first language, Thai in this case, rather than a second language, in this case English. The LIT group, having spent approximately three years in English-medium education after arriving with only elementary English language proficiency, have had quite significantly less than the 5-8 years much research (e.g. Cummins, 2000) has suggested as necessary to achieve sufficient levels of proficiency in academic language for academic achievement to be unaffected by second language proficiency. However, they have had more of an opportunity to develop their literacy skills in their first language, which has been shown to support the development of academic uses of language in a second language (Cummins, 1979, 2000).

The framework for academic language developed in chapter 3 provides a means for assessing the progress these learners have made over three years in their learning of academic language, and identifying areas in which the resources of academic language may be lacking. On some measures, writers in the LIT group have control of the resources required to express concepts in an academic setting, but in other, arguably crucial areas, such control is lacking. They are able to modify nouns with relative constructions, though these constructions often contain errors. They combine clauses in relationships of hypotactic expansion and projection using a set of common subordinators, though they tend to lack the more sophisticated range of subordinators seen in some EIT and EMT writing, including the use of concession clauses linked by subordinators such as *although* or *even though*. Looking beyond the level of the sentence to the resources of cohesion, late Immersion writers frequently use cohesive conjunctions to make logical links between sentences and larger discourse segments. Indeed, they deploy cohesive conjunctions in the thematic adjunct slot more frequently than either the EIT group or the EMT group. This is a marker of their success as learners of academic language, but may also be a marker of their developmental level; they may lack the flexibility to use cohesive conjunctions in other clause slots, and do not have a particularly extensive range of options to express logical connections in other ways.

The above point, relating to a relative lack of flexibility in LIT language, is further illustrated by examining the data on clause types and the nominal groups that appear as participants within clauses. Late Immersion writers use a range of clause types, but rarely use identifying clauses with complex participants such as nominal clauses and gerunds. Similarly, they do not have control of abstract nouns and the resources of nominalization. This area of language, which has been identified as fundamental to the growth that leads to control of academic language (e.g. Martin and Rose, 2008) may be significant in limiting expression in academic contexts.

Tenses are often seen as a challenge for Thai learners, whose first language lacks tense though it possesses a system of aspect analogous to English perfect and progressive forms in some contexts (Iwasaki and Ingkaphirom, 2005). Most LIT writers used secondary tenses in appropriate contexts, including present progressive and present perfect simple, though often with errors in form, and somewhat less frequently than EIT writers. This is consistent with LIT writers having a developing but incomplete control of the tense system. However, a more marked feature of LIT writing is the infrequency of passive verb forms. LIT writers did not use passive voice in contexts where writers from the other two groups did, and they clearly did not control either the form or the function of passive verbs.

Late Immersion writers' control of modal verbs, an important interpersonal resource, is growing but incomplete. They have control over modal verbs with a deontic function, and use a basic set of dynamic modals as markers of future intention (will) and potentiality (can), and are beginning to use a basic set of modal verbs with an epistemic function (may, might, could). However, they do not use *would* to express hypothetical meanings, and make limited use of other resources for expressing modal notions, such as adverbs and adjectives. This, again, suggests certain limitations in the flexibility of LIT language knowledge.

Overall, one might summarise the developmental level of Late Immersion Thai writers after three years of immersion in English, as being characterized by complexity without control of the basic syntactic and morphological building blocks of English. Students can expand

information by modifying nominal groups and combining clauses. However, the elements of group and clause are often non-target-like. They also lack the flexibility of expression offered by the resources of grammatical metaphor.

ii. The development of academic language - comparing LIT to EIT

Comparing the language of Early and Late Immersion Thai groups is central to understanding the developmental trajectory of the resources of academic language. Students in the EIT group have spent all or most of their educational lives in an English-medium school. Comparing Late Immersion students (with approximately 3 years in an English-medium school) to Early Immersion students (with 6 to 11 years in an English-medium school) reveals the following general trends at the level of the clause:

Process types, participants and clauses

- Participants become longer and more complex, particularly in the subject slot and increasingly include nominalised processes, gerunds and clauses as participants;
- Relational clauses become more complex and varied, with a wider range of verbs identifying as well as linking carrier to attribute, and expressing notions such as cause and effect, such as *cause* and *result in*.

Expansion of verbal groups

- Early Immersion learners have a markedly greater control of passive voice than LIT writers.
- The use of modal verbs with an epistemic function and, particularly, the counterfactual *would* develop late. LIT use epistemic modal verbs less frequently than EIT writers, and barely use *would* at all.
- Control of secondary tense increases to some extent. Early Immersion learners deploy secondary tenses slightly more frequently, but significantly more accurately than Late Immersion writers. Nevertheless, those LIT writers who have made more

progress use a similar range of secondary tenses to EIT writers, albeit with more frequent morphological errors.

The features that most clearly differentiated them from the LIT groups and define a clear developmental trajectory between these groups include less frequent use of single-word subjects, abstract nouns and nominal clauses, passive verbs and to a lesser extent epistemic modal verbs (including the use of *would*).

Appendix iv. presents a more detailed summary of the findings of the study of lexicogrammar. A major theme of the developmental trajectory revealed by the current study is of increasing flexibility in the way ideas may be expressed in English. The review of the literature on the development of academic language knowledge and later language development in native speakers suggested that learning a first language involves moving from *fluency*, involving command of the basic morphosyntactic and lexical units, achieved during the first five years of childhood, towards *mastery* (Berman, 2004), where forms can be deployed in an increasing range of contexts for a growing range of purposes. This growth in linguistic literacy (Ravid and Tolchinsky, 2002), or, in the parlance of systemic functional linguistics, meaning potential (Martin, 2007), relies on these expanding means of expression. Systemic Functional linguists (Martin and Rose, 2007; Martin and Rose, 2008; Martin, 2007) have stressed the importance of the development of grammatical metaphor in enabling writers to express abstract meanings associated with secondary education. EIT writers have greater control of grammatical metaphor, including logical grammatical metaphor, and thus have more available options in the expression of concepts and the logical connection between them.

In addition, although all members of the EIT group cannot be said to have developed full control of the basic units of English morphosyntax, and continue to make some grammatical errors typical of ESL learners, they nevertheless have substantially better control of the basic building blocks of English than the LIT group. The overall density of errors, and the frequency of categories of common error, is another feature which distinguishes Early Immersion from Late Immersion writers. Although Early Immersion

writers continue to make some of the common error types seen in Late Immersion writing, others have all but disappeared (e.g. omission of BE) and the overall density of grammatical errors is far less intrusive to the reader in Early Immersion than in Late Immersion writing.

One generalization that can be made both for Thai immersion writers, and immersion learners in general (Lightbown, 2000; Kowal and Swain, 1997), is that certain errors appear to persist in the productive language of immersion learners long after the learners have a declarative understanding of the language feature in question. Examples of such errors highlighted in the data of the current study include the consistent formation of past simple tense, the use of plural inflections and verb subject agreement in the present simple tense. It is possible that such errors may be ‘fossilized’ (Han, 2003), so that the non-target-like form has stabilized in the inter-language of the learner to the extent that it cannot easily be unlearned and replaced by target-like usage. The nature of these persistent errors, and how they may best be treated, is of some interest since such errors may adversely affect a reader’s perception of a piece of writing even if it communicates effectively. It is therefore warrants further discussion.

The notion of fossilized errors would seem to require that certain errors persist even as other dimensions of language knowledge develop. In other words, fossilized errors might be expected to occur alongside late acquired features. The evidence from the current study does not entirely support the idea that basic morphological errors such as plural noun errors persist in the writing of some EIT writers because they have become fossilized. Those writers in the EIT group that continue to make frequent morphological errors in noun and verb groups (e.g. EI_VN) display other features of grammar that indicate a less-developed stage of language knowledge. In other words, the evidence from the current study suggests that learners make differential progress in the same amount of time in all dimensions of language knowledge, but the study does not support the idea that certain non-target-like constructions become fossilized.

To summarise the developmental trajectory of academic language from Late Immersion to Early Immersion, language knowledge develops from complexity to control and towards

increasing flexibility. EIT writers have achieved the control of the basic building blocks of language that was lacking in their LIT peers and are beginning to develop greater flexibility in language use, through the development of ideational grammatical metaphor and a wider range of resources generally, notably including control of passive voice. Some EIT learners have made less progress and continue to make quite frequent morphological errors, indicating that such errors may persist in the writing of Thai learners even after many years of immersion in English. However, it may not be accurate to describe certain errors as being fossilized, since the evidence suggests that error frequency correlates with other developmental features. In other word, these morphological errors do not persist beyond their time but are part of an 'ecosystem' of language features characterising a particular developmental phase.

iii. Use of clauses in writing and Biber's (1988) dimensions of language variation

A feature of the later language development of native speakers moving through childhood towards adolescence is an increase in the complexity of t units in terms of the number of clauses attached to or embedded within each main clause (Crowhurst, 1980; Nippold, 1998; Nippold, Hesketh, Duthie and Mansfield, 2005). The developmental trajectory defined by comparing the three groups writing in English in the current study does not precisely replicate this simple pattern of increasing complexity as development progresses. Late Immersion writers who have made less progress (LI_YK and LI_EN) do indeed produce less complex discourse, a finding that also emerged from Woodward (2008). However, overall complexity as measured in clauses per t unit does not vary greatly between the three groups writing in English in the current study.

One reason for this may be strategic variation in sentence length within some EMT and EIT writing as learners develop knowledge of the rhetorical effects that may be achieved through the deployment of sentences of differing length in their writing (Myhill, 2008). However, the results of the current study indicate that, although the overall measure of complexity as defined above did not display a systematic developmental trend from Late Immersion through to Early Immersion and EMT, the function of clauses and their location

in various clause slots did change between groups. Thai writers, and particularly those of the LIT group, used more projection clauses with verbs such as *think* and *believe* in the Perfect Teacher and Park Letter tasks, and were more likely to mark such clauses with *that*, where the word was optional. In addition, Thai writers were more likely to deploy the subordinator *because* than EMT writers, who used a more varied range of causal subordinators. EMT writers, and some EIT writers, used fewer clauses of hypotactic expansion and projection in their writing, but more nominal clauses (including gerunds) and subjects modified by relative constructions.

Biber (1988) identified *that* clauses acting as verb compliments and in relative constructions as features of elaborated discourse under real time production constraints, such as the discourse of university lectures and some other kinds of public speaking (Dimension 6 in Biber, 1988). In such situations, the speaker is required to produce informational discourse without the opportunity to plan and edit. Similar constraints may also occur during the exam conditions in play when the sample texts were produced. The Thai writers, and particularly the LIT group, may lack the more extensive vocabularies of the EMT writers, necessitating the use of strategies and language that allow information to be expressed without recourse to precise lexical choice. Other features of Thai writers, and particularly the LIT group, such as the use of *think* and *believe* (Biber's private verbs, Biber 1988), the use of single words, particularly personal pronouns, in the subject slot, and the frequent use of *because* are features of conversational language and indicative of personal involvement and on line production (Biber's dimension 1, Biber, 1988).

The overall picture that therefore emerges from the investigation of hypotactic clause complexes and other features such as the participants deployed in the subject slot of clauses and passive verbs is that Thai writers, and particularly those with a more limited duration of exposure to English in the LIT group, tend to produce writing characterized by more frequent use of the features of speech when compared to their EMT peers, whose writing, as a general rule, tended to be less involved and have the characteristics of higher informational density and greater abstraction. It should be pointed out, however, that

there is a degree of overlap between the Thai Immersion and EMT groups on these dimensions of variation, with some EMT writers producing more involved, conversational discourse when more impersonal writing might have been called for, and at least one Early Immersion Thai writer producing writing characterized by linguistic features of more detached, impersonal discourse. This highlights the fact that native speaking learners are by no means homogenous in their later academic language development (see Nippold, Hesketh, Duthie and Mansfield, 2005, on individual variation in the later language development of native speakers).

iv. The development of rhetorical knowledge and knowledge of cohesion

Systematic variations in rhetorical structure have often been investigated from the perspective of cross-cultural influence; however, at least some of the characteristics of rhetorical structure identified in the current study can be attributed, either wholly or in part, to developmental factors. The overall depth of rhetorical structure trees, and the number of clauses per clause package, is generally greater for the EMT group. Deep rhetorical structures deployed by LIT writers, particularly on the Perfect Teacher task, tend to involve stacking of the multinuclear relations, *contrast* and *conjunction*, rather than the more elaborate patterns seen in some EMT texts. The conjunction relation involves the addition of a string of ideas, not the development of those ideas. For example, in the case of the EMT whole text diagram (Figure 8.9) internal paragraphs involve quite elaborate patterns involving *contrast* and *evidence* relations. The LIT text is simpler, with less internal development of ideas related via *conjunction*. The EIT text is somewhere between these two extremes. It is again important to point out that all groups displayed notable variation in the extent topics were developed, and some EMT texts were also characterized by shallow structures and weak coherence relations.

From a developmental perspective, the characteristics of many Thai responses to the Perfect Teacher and Park Letter tasks, with their preference for a pattern of internal organization involving *contrast*, might be interpreted as indicating that Thai writers draw upon concrete models of text organization to a greater extent than EMT writers: ESL

instruction for these learners included explicit teaching of the text structure of genres including *discussion* essays, where views are contrasted in a similar way. Research into the development of organizational patterns in text by young native speaking writers has suggested that they begin by relying on memorized patterns of whole texts before gradually adopting more flexible text schemas (Kamberelis and Green, 1992). A similar explanation may account for the characteristics of the Thai writing in the current study. However, it is also possible that cultural influence contributes for the Thai preference for the *contrast* relation within texts, a point discussed later in this chapter.

Careful examination of the characteristics of EIT rhetorical structures addressing individual topics within texts demonstrated that EIT writers were more adept at combining structures to achieve a particular goal than were LIT writers, with less of a tendency to add unnecessary repetition. There was also a degree of interaction between lexicogrammatical knowledge and rhetorical knowledge, with the greater control of EIT writers enabling more ease with the combining of clauses and larger textual segments, and greater clarity at the level of the clause making it easier for the reader to recognize coherence relations.

Again, as with the dimension of more-involved vs less-involved discourse, it is important to note that the Thai Immersion groups overlap with the EMT group on the dimension of rhetorical knowledge. Some EMT participants developed shallow rhetorical structures and had, it could be argued, less sophisticated control of rhetorical structures than some of the LIT group in the sense that they did not effectively combine constructions within clause packages to achieve a unified goal. In some instances, features of the rhetorical structures of EMT writers resembled those of LIT writers who made less progress. This further highlights the fact that, on dimensions of language knowledge above the level of the single clause, there was perhaps less to distinguish the three groups writing in English on developmental grounds.

v. Very late developmental features: EIT compared to EMT and the “8-year rule”

Research into the time taken for learners with ESL to achieve parity with native speaking peers with respect to their academic language proficiency suggested that as many as 8

years may be required (Cummins, 2000; Cummins, 1979; Cummins, 1981; Collier, 1987; Hakuta, Butler and Witt, 2000). This research was carried out on children living as immigrants in countries such as the USA and Canada, where English is the dominant language in the wider community. In addition, these studies looked at performance on tests of academic achievement, often across a spectrum of subjects, but did not examine the lexicogrammatical and rhetorical resources of learners in detail. Given that the Early Immersion group in the current study spent either all or most of their educational careers in an English-medium school, in many cases more than 8 years, it may be informative to consider the extent to which they have achieved parity in terms of the resources of academic language with English mother tongue writers, in accordance with the findings in the literature.

The divide between the language knowledge of EIT writers and EMT writers is not sharp, but nevertheless, some differences do emerge from the data of the current study. It is also notable that some differences between these two groups mirror key differences between the LIT group and EIT group. These include the frequency of abstract nouns and the increase in the variety of relating processes particularly processes of cause (e.g. *cause, lead to, result in*), and also the frequency of passive verb forms.

As a general rule, it appears that even given such an extended period of immersion in English-medium education, many Thai learners do not equal the range of resources acquired by EMT peers, and continue to make some errors characteristic of ESL learners. However, it is equally notable that Thai learners with this extensive exposure to academic English do at least approach EMT norms on some of the core features of academic language knowledge. The participant EI_PN, for example, achieved similar levels to EMT writers in the frequency of abstract nouns and passive verbs. With respect to rhetorical knowledge, EIT writers in the current study surpassed some EMT writers in rhetorical depth and in the way they were able to combine rhetorical structures to achieve a particular goal. In addition, EIT writers (and LIT writers) made more frequent use of conjunctive adjuncts to label the relations between sentences and larger segments of discourse than did EMT

writers. This can partially be attributed to the fact that some EMT writers have greater control of logical grammatical metaphor and therefore have more flexibility in the way they can express logical relationships in their writing. However, in some EMT writing there is a sense that a more frequent use of cohesive conjunctions might have enhanced the clarity of the writing, and that in those aspects of language knowledge relating to building discourse beyond the clause, EIT writers had at least achieved parity with EMT writers.

There is evidence in the literature (Harley et al, 1990) that second language learners in immersion contexts most closely approach the proficiency of native speakers in those areas of language knowledge enabling the construction of discourse beyond the clause and above the level of the sentence. The current study concurs with these findings. The relative success of Thai immersion learners in developing rhetorical knowledge, knowledge of cohesive conjunctions and a basic range of conjunctions involved in hypotactic expansion may be partially attributable to the possibility that these aspects of language knowledge are more amenable to instruction than aspects of morphosyntax within the clause or within the group, such as control of passive voice or the derivational morphology required to control nominalization. It is possible to isolate and practice these aspects of lexicogrammar, but their effective use involves pragmatic knowledge as well as control of form and meaning under the production constraints involved in writing.

A genre's stereotypical schematic structure is something that can be illustrated through modeling and is relatively concrete in the sense that the organization of propositional content can be pointed to and discussed during lessons. Similarly, a basic set of cohesive conjunctions can be taught by reference to the semantics of familiar conjunctions such as *and*, *but* and *so*. The declarative knowledge of these aspects of language may be easier to apply during a task than, say, declarative knowledge of how to form passive voice, which is, of itself, an insufficient guide to the role of this form in producing academic discourse. An additional factor may be the role of Cummins' common, underlying proficiency (Cummins, 1979, 1980, 2000) in underpinning the development of academic language. Although cultures may vary in certain features of generic structure, the notion that, for text to be

coherent, clauses and sentences must relate to the writer's rhetorical goals must be universal and, therefore, such knowledge in a first language is likely to support the development of a second language. Knowledge of Thai grammar at the level of the word, group and clause is likely to be less supportive in the development of English grammatical knowledge given that the two languages are so different.

vi. A model of the developmental trajectory of Thai immersion learners

The tables below (tables 10.1 to 10.4) present a simplified and generalized developmental trajectory for the language knowledge of Thai Immersion learners, based on the findings of the current study. Development is subdivided into four phases, labelled Simplicity, Complexity, Control and Flexibility, categorical labels which are put forward on the basis of the current study.

The first of these four phases, *Simplicity*, represents the level of proficiency of Thai learners on entering the school from a Thai school, but who have learned English as a foreign language as part of their school curriculum. This is the level of proficiency seen in the Late Immersion learners when they enrolled in the international school (see chapter 6). At this stage, language is characteristically simple, with few subordinate clauses and no embedded clauses, and very simple, concrete participants.

The second stage, labelled as *Complexity*, represents the level of proficiency attained by Late Immersion Thai learners after three years in an English-medium school. At this stage, learners have acquired resources to produce quite complex discourse, including the resources to construct clause complexes through expansion and projection, and finite relative clauses expanding participant nominal groups. However, at this stage, learners do not control key systems at the level of the group and clause, including the inflectional morphology of verbs and nouns. In addition, at this stage, learners also lack full, or in some cases even partial control of important components of academic language knowledge including passive verbs and experiential and logical grammatical metaphor.

The next phase, labelled as *Control* in the model, represents the level of proficiency attained by most Early Immersion Thai writers at this stage of their education. These learners have both the resources of complexity mastered at preceding phase, but also have control of the morphological building blocks within the group and clause that are lacking at the Complexity phase. In addition, at the Control phase, learners are able to deploy passive verbs, have greater control of epistemic modal verbs and are beginning to make use of experiential and logical grammatical metaphor.

The final phase in the model, *Flexibility*, is marked by full control of the basic morpho-syntactic building blocks of the group and clause, and growing ability to deploy the more varied resources of grammatical metaphor as options in building logical links between propositions and representing processes as participants in relational clauses, resulting in academic writing that is more dense and abstract.

A Simplified Model of the Development of Academic Language Knowledge

Table 10.1: The developmental trajectory of clause participants

Resource of Language	Simplicity	Complexity	Control	Flexibility
<p>Clause level:</p> <p>Participants</p> <p>Dense nominal groups</p> <p>Experiential grammatical metaphor (nominalization) and abstract nouns more generally</p>	<p>Nominal groups are simple with only occasional pre-modification by adjectives and poor control of articles and other systems involved within the nominal group.</p>	<p>Nominal groups may be expanded through post-modification by prepositional phrases and finite relative clauses. Such expanded nominal groups tend to include errors. Abstract nouns are rare and single-word subjects frequent. Subject nominal groups tend to be simple. Morphological errors in nominal groups are frequent, including omission of plural inflections and incorrect determiner choice.</p>	<p>Nominal groups may be expanded through post-modification by prepositional phrases and finite relative clauses. Abstract nouns are used more frequently. Subject nominal groups still tend to be simple, though some are expanded. Morphological errors in nominal groups, even expanded nominal groups, are rare, reflecting greater control of the basic building blocks of the English clause.</p>	<p>Nominal groups may be expanded through post-modification by prepositional phrases, finite relative clauses and increasingly, non-finite relative constructions involving present and past participle forms. Nominal groups in the subject slot are often complex, and a wider range of relative constructions, including participle modifiers, may be used. Nominalizations (including gerunds and nominal clauses) are increasingly deployed as participants in clauses, marking a general drift in meaning from the verbal group to the nominal group.</p>

A Simplified Model of the Development of Academic Language Knowledge

Table 10.2: The developmental trajectory of processes and expanded verbal groups

Resource of Language	Simplicity	Complexity	Control	Flexibility
<p>Clause level:</p> <p>Processes</p> <p>Elaborated verbal groups;</p> <p>A range of process types and clause types</p> <p>Identifying clauses and logical grammatical metaphor</p>	<p>Material and behavioural processes predominate. Relational processes are of the simple attributive kind. Verbal groups are usually simple, lacking consistent marking of tense and number.</p>	<p>Verbal groups are expanded through secondary tense (present perfect simple, present continuous). A limited range of causative and phase verbs is used quite frequently: <i>try, stop, start, make</i>. Passive verbs are rare and usually inaccurate.</p> <p>Identifying clauses are rare. Logical grammatical metaphor in the verbal group, through verbs such as <i>cause</i> and <i>result in</i>, is not used.</p>	<p>Verbal groups are expanded through secondary tense (present perfect simple, present continuous, present perfect continuous) causative and phase constructions, and some passive verbs. A limited range of causative and phase verbs may still be used quite frequently. Passive verbs are used, sometimes accurately.</p> <p>Identifying clauses begin to appear, often to structure discourse through the use of abstract nouns: <i>The reason is.....</i> Logical grammatical metaphor in the verbal group, through verbs such as <i>cause</i> and <i>result in</i>, occurs but is rare.</p>	<p>Verbal groups are expanded through secondary tense (present perfect simple, present continuous, present perfect continuous), a wider range of causative and phase constructions, and passive verbs. Passive verbs are used accurately and with appropriate frequency.</p> <p>Identifying clauses are frequent. There is an increase in the relative frequency and variety of relating processes as compared to material and behavioural processes as meanings are increasingly expressed as the relationship between abstract participants rather than as actions. Logical grammatical metaphor in the verbal group is used confidently (see expansion and projection below).</p>

A Simplified Model of the Development of Academic Language Knowledge

Table 10.3: The developmental trajectory of clause complexes

Resource of Language	Simplicity	Complexity	Control	Flexibility
Above the clause: Expansion and Projection	<p>Expression is mostly at the level of the clause with only the occasional use of most basic expansion involving a limited set of coordinating conjunctions (<i>and, but, so</i>) and subordinating conjunctions (<i>because</i>).</p>	<p>Clauses are combined through expansion and projection producing complex, involved discourse. The range of conjunctions involved in hypotactic expansion includes common binding conjunctions for time, cause, means, condition and purpose (<i>when, if, because, to, by</i> –VING with errors).</p>	<p>Clauses are combined through expansion and projection producing complex, involved discourse. The range of conjunctions involved in hypotactic expansion includes a wider range of binding conjunctions for time, cause, means, addition, concession, condition and purpose (<i>when, while, if, unless, because, since, although, in order to, to, by</i> – accurate, <i>which, as well as</i>).</p>	<p>Clauses may be combined through expansion and projection, and a variety of subordinate clauses may be foregrounded to build cohesion. The range of conjunctions involved in hypotactic expansion includes a wide range of binding conjunctions for time, cause, means, addition, concession, condition and purpose (<i>when, while, if, unless, because, since, although, in order to, to, by</i> – accurate, <i>which, as well as</i>). There is an increasing use of logical grammatical metaphor including the use of verbs of cause (e.g. <i>cause, lead to, result in</i>) and circumstances (e.g. <i>during the night, because of the accident, due to</i>).</p>

A Simplified Model of the Development of Academic Language Knowledge

Table 10.4: The developmental trajectory of cohesive conjunctions, rhetorical knowledge and interpersonal resources

Resource of Language	Simplicity	Complexity	Control	Flexibility
Above the sentence: Cohesive conjunctions	<p>Cohesive conjunctions are not used, though other conjunctions (e.g. <i>and</i>, <i>but</i>) may sometimes be placed at the beginning of sentences.</p>	<p>Cohesive conjunctions are used to explicitly mark relations between sentences and larger text segments, though sometimes the choice is not appropriate.</p>	<p>Cohesive conjunctions are used to mark relations between sentences, with good control.</p>	<p>Cohesive conjunctions may be used to mark relations between sentences, with good control, but grammatical metaphor provides a greater range of options for expressing logical links.</p>
Rhetorical knowledge	<p>Rhetorical structures are shallow and whole texts are best represented as mono-nuclear structures such as conjunction.</p>	<p>Rhetorical structures may be deep, though rhetorical depth is achieved through the stacking of mono-nuclear structures. Texts are often structured around concrete exemplars that have been studied, giving a degree of coherence to the text as a whole. More locally, writers may still struggle to combine rhetorical structures to achieve a single purpose, and rhetorical relations between clauses are not always clear.</p>	<p>Texts may still draw upon taught exemplars, but at the level of the paragraph, rhetorical structures are combined effectively to achieve local goals and rhetorical relations are clear.</p>	<p>Texts may draw upon taught exemplars, but at the level of the paragraph, rhetorical structures are combined effectively to achieve local goals and rhetorical relations are clear.</p>
Interpersonal resources	<p>Limited control of interpersonal resources. An occasional predicative adjective may be used.</p>	<p>Interpersonal resources are largely confined to adjectives and deontic modal verbs.</p>	<p>Interpersonal resources include adjectives, deontic modal verbs, epistemic modal verbs, counterfactual <i>would</i>, and some modal adverbs.</p>	<p>Interpersonal resources include adjectives, deontic modal verbs, epistemic modal verbs, counterfactual <i>would</i>, and a wider range adverbs.</p>

10.4 CULTURAL INFLUENCE ON LANGUAGE KNOWLEDGE AND WRITING

Evidence for cultural or other cross-linguistic influence as a causal factor in the frequency patterns of lexicogrammar and in rhetorical structure might be summarized as follows:

- a distinctive difference in patterns identified in the English texts of Thai writers compared to the English texts of English mother tongue writers;
- the anomalous patterns of rhetorical structure and lexicogrammar identified in English writing of Thais also occurring in the writing of Thai writers in Thai;
- the anomalous patterns are consonant with theories of culture and previous research into the writing of Thais or of other East Asian groups who share some cultural characteristics with Thais.

A weakness of the current study is its relatively small size. Ideally, given a larger corpus, anomalous patterns identified in texts would satisfy tests of statistical significance. This is not the case within the current study, and any claims must therefore be seen as somewhat tentative. Nevertheless, anomalous patterns in the English writing of the Thai immersion participants do emerge within the study that, it will be argued, can be best explained by cultural influence on the English language knowledge of the study participants. The Thai texts written in Thai provide a useful point of reference, though, as discussed below, patterns within the English writing of Thai Immersion students do not always represent the simple transfer of the surface form of rhetorical organization from one language to another.

The discussion below examines the following patterns identified during the study, using the above criteria as a guide: i) Directness vs Indirectness - differences in rhetorical structure and the frequency of certain lexocogrammatical items and constructions that might relate

to a tendency towards indirectness as opposed to directness and reader responsibility as opposed to writer responsibility; ii) Culture and persuasion - evidence that Thai writers show different preferences than English writers in the material they consider persuasive; iii) Culture and modal verbs - variation in the frequency of modal verbs that may be caused by Thai cultural patterns. The discussion focuses on texts elicited by the two prompts that have an element of overt persuasion, the Park Letter and Perfect Teacher tasks, as these showed the clearest evidence of variation that might be accounted for by invoking cultural influence.

i. Directness vs Indirectness in rhetorical structure and in the presentation of attitudes

A significant proportion of the research into cross-cultural influence on rhetorical structure has focused on global patterns of text organization or paragraph organization, notably the distinction between inductive and deductive patterns in argumentation (Kobayashi, 1984; Kobayashi and Rinert, 1988) and delayed introduction of purpose (Hinds, 1990). These were thought to represent a direct transfer of organizational patterns found in writing in the first language. Although the rhetorical structure of English texts written by the Thai immersion groups differed significantly and systematically from the EMT group (at least on the responses to the Perfect Teacher task), a simple proposal that these structures represent the direct transfer of discourse patterns from the first language, Thai, is not supported by the data in the study, insofar as the patterns identified in the Thai immersion writing in English are not identical to organizational patterns in the Thai writing in Thai. A case can, however, be made that patterns in the Thai texts written in Thai and the English texts written by Thai learners share characteristics that can be related to the notion of reader as opposed to writer responsibility (Hinds, 1987) associated with a tendency towards indirectness in some circumstances.

There is some evidence that the Thai writers writing in Thai did not identify the purpose of the genre of the Perfect Teacher task in precisely the same way as EMT writers. They deployed fewer persuasive relations, were less explicit in the development of points, rarely used the challengeability marker *ja*, and did not use any epistemic modal verbs to hedge

their claims. These factors indicate Thai writers may not consider their responses to the task as functioning to persuade a reader in the way that EMT writers appear to; rather, the texts are simply expressing a series of points with occasional added details for clarity, leaving the reader free to make up his or her own mind on the topic. An argument can thus be made that Hinds' notion of reader responsibility (Hinds, 1987) is applicable. Thai writers, with a reader-responsible first language, may not feel it necessary to be explicit and persuasive when responding to the prompt since the reader is responsible for adding any further details from their own intuition and experience. Ideas are presented as a list of points that are not viewed as controversial and open to challenge, and therefore in less need of supporting detail or hedging with modal verbs.

Although the responses to the Perfect Teacher prompt of EIT and LIT writers writing in English appear superficially quite different to the Thai texts written in Thai in their global rhetorical structure, they too can also be interpreted as being the product of writers taking a reader-responsible stance as proposed by Hinds (1987). The body of texts, even those written by quite proficient EIT writers, consisted of the views of generalized groups of others, usually given labels such as *some students*. The writers' opinions were presented in a conclusion that consisted of a list of points largely unrelated to the preceding material in the body of the text. The concluding statements in these texts were rather similar to the whole texts written by the Thai writers writing in Thai. As with the Thai writers writing in Thai, the Immersion groups writing in English did not tend to develop their own point of view at length in the body of the text, as the EMT writers did. Rather, their point of view was stated as a series of generalizations with relatively little supporting evidence to persuade the reader.

It should also be noted that Bickner and Peyasantiwong (1988), in a study of Thai writing in Thai by high school students, found that these writers tended to list points that defined an issue rather than putting forward an argument about how the issue might be resolved successfully, as a group of native English speaking writers to which the Thai group were compared had often done. The findings of the current study are concordant with those of

Bickner and Peyasantiwong (1988) in that the Thai Immersion learners writing in English seemed to view the Perfect Teacher task in a similar way. They saw the task as requiring the perspectives of possible stakeholders to be explored and their own views on the issue stated, rather than one requiring views to be supported in an effort to persuade the reader of their validity.

To conclude this point, both the TWT responses to the Perfect Teacher prompt and English texts written by Thai immersion writers lack the explicitness of texts by EMT writers, who present their own views more directly and provide more evidence to support their assertions. This difference can be accounted for if Thai writers identify the purpose of this task somewhat differently to English writers. Specifically, they may view the objective as being to state their views and provide the reader with an opportunity to form their own opinion rather than to persuade the reader that their views are valid. This is consistent with Hinds' notion of languages as being either reader or writer responsible. It is suggested that Thai writers take a reader responsible perspective, and thus may tend to be less explicit in presenting their own opinions and more likely to encourage the reader to consider alternative views as valid. The deployment by some Thai Immersion writers, both in the Perfect Teacher task and the Park Letter task, of disclaimer statements is also consistent with these general cultural patterns. The disclaimers exemplified in the results, in a sense, represent the antithesis of argumentation as it is generally understood by writers from an Anglophone cultural tradition. The purpose of an argument is generally understood as being to persuade the reader of the validity of one's position. It is therefore not entirely obvious why a writer would imply that the reader is under no clear obligation to agree with the views presented. In the Eastern tradition, however, disclaimers are consistent with the preference for harmony. Although by no means all Thai writers deployed justify/disclaimer relations of this kind in the concluding segments of their texts, it appears reasonable to suggest that their presence is an anomaly, and can best be accounted for by reference to cultural patterns. Thai writers present their views but do not seek to impose them on the reader. In a sense, some *disclaimer* statements in the English texts of Thai immersion writers appear as a direct statement of the writers' reader-

responsible stance which could be paraphrased as follows: These are my views. You may not agree, and that is up to you. In one response to the Perfect Teacher prompt (LI_TW), an LIT writer does not state any personal view on the nature of a perfect teacher at all but simply reviews the views that may be held by others and writes a conclusion to the effect that the nature of a perfect teacher is entirely dependent on the opinions of individual students. This is taking reader responsibility one stage further.

An additional point related to the general notion of indirectness emerges from the study of the introductory statements deployed by writers in their responses to the Park Letter prompt. This prompt required writers to respond to proposed rule changes for a public park by writing to the park administrator. The task is thus likely to involve an element of criticism, a face-threatening move. The investigation of how texts by the 4 groups of writers involved in the study began was consistent with the literature (e.g. Hongladarom, 2007) in that English mother tongue writers were more likely to begin these texts with direct criticism of the proposals that was not softened by references to the fact that some of the proposals would be for the better. Thai writers, whether writing in Thai or in English, were more likely to begin by complementing the rule changes or by stating that there were both good and bad proposals. Again, this can be accounted for by reference to the preference for harmony and conflict avoidance.

ii. Culture and persuasion – the content of evidence

Based on the work of Nisbett et al (2001), and supported by analyses of writing of adults (e.g. Kong, 1998; Zhu, 2000; Chakorn, 2008), a further possible point of contrast between Thai writers and native English writers might be the likelihood on the part of English mother tongue writers to deploy rhetorical appeals that are essentially ideational in nature, expressing relations of causation and appealing to syllogistic reasoning, versus a tendency on the part of Thai learners to deploy evidence that may refer to emotional states, hopes, desires and other categories of emotional experience.

There is some evidence in the current study that may parallel these findings. On the Perfect Teacher task, EIT writers use relating processes, particularly BE, more frequently than do

EMT writers, who use a correspondingly high proportion of material and behavioural processes. This difference, which approaches closely to accepted levels of statistical significance despite the small group sizes involved, corresponds to a subtle difference in focus when discussing notions of a perfect teacher. The Early Immersion Thai writers focused somewhat more on describing attributes, whereas EMT writers focused more on describing the behaviour of a perfect teacher. A similar, and related, trend can be identified in the counts of adjectives in carrier-attribute clauses (traditionally, predicative adjectives) on both the Perfect Teacher and Park Letter tasks, the two tasks with important components of overt persuasion. Predicate adjectives are one resource that can express Value, Judgment and Affect, the interpersonal system of Appraisal.

However, in the case of predicative adjectives, it is probably wise to err on the side of caution before suggesting the patterns are the result of cross-cultural influence. The differences between groups approach but do not quite reach statistical significance. In addition, the figures for the Late Immersion Thai group on the Perfect Teacher task for both relating processes and adjectives are not distinctively different to those of the EMT group. Writers in the TWT group, moreover, show patterns closer to EMT writers, with a higher proportion of material processes than relational processes on responses to the Perfect teacher prompt. It could be argued that the EMT group simply developed points more fully. Predicate adjective clauses tend to be used to make generalizations concerning the Value of a suggested change to the park rules: "This is a good idea..." Following this, all groups tend to present evidence, usually the potential positive or negative outcomes of the rule change. The balance between the predicate adjectives expressing Value and the evidence depends on the extent to which this evidence is explained in detail. It is plausible that this difference between groups may therefore reflect more fluent writing by EMT writers with a more extensive range of resources for expressing interpersonal meanings rather than cultural preferences in argumentation, though cultural influence cannot be discounted. Hinkel (2002) found a similar pattern in ESL college writers, and suggested that the relatively high frequency of predicate adjectives may have reflected the fact that carrier-attribute clauses are simple and acquired early, and therefore represent a readily

available resource for ESL writers. Nevertheless, when viewed in the light of other studies, and the theoretical perspective put forward by Nisbett and others (Nisbett, 2003), these differences are interesting and worthy of further investigation.

Further, and perhaps more compelling, evidence that preferences for persuasion of Thai immersion students in the current study are influenced by culture emerges from the investigation of how the 4 groups of writers supported the view that a proposed rule change on the Park Letter prompt was not appropriate. All writers who addressed the topic of ball games being limited to weekends agreed that the rule was not a good idea, but there were some differences between the EMT group and the Thai groups in material that was juxtaposed to support this view. Some Thai writers included the personal preferences of park goers as supporting the rejection of this particular rule. Another Thai writer from the EIT group used the fact that limiting ball games to weekends would reduce opportunities for social activity as support. English mother tongue writers used the effects of this proposed rule change on safety, its potentially resulting in overcrowding, and its possible effects on physical health as evidence that the proposal was flawed. Though, once again, care should be exercised before making strong claims on the basis of this evidence given the small sample size involved, Thai writers, when compared to the EMT group, can be seen to show a degree of preference for evidence that relates to personal preferences, emotions and the social world, concerns that could be related to the cultural syndrome of collectivism (Triandis, 1993, 1995) as opposed to individualism. To sum up, English mother tongue writers seemed to show a greater tendency to identify groups and their effects as single abstract entities; Thai writers, in contrast, seemed to discuss groups as collections of individuals with emotions that needed to be considered.

Overall, it can be concluded with reasonable confidence that there are some culturally mediated differences in the way Thai writers writing in English attempted to persuade their readership of the validity of their views, and, indeed, the extent to which they viewed the task as one involving persuasion. Some of these differences were discussed in the preceding section on indirectness and reader responsibility. The current section examined

the evidence that the content of persuasive material may be influenced by culture. There is some evidence to support systematic differences in the content of material deployed with persuasive intent by Thai writers, with Thai writers being more likely to refer to personal preferences, emotions and other concerns relating to maintaining harmony, and being attuned to those factors that may ensure smooth interpersonal relations (Komin, 1990). The EMT writers, in contrast, deployed content that reflected a concern with factors of more general causation, such as safety and overcrowding. Again, these apparent differences warrant further investigation if they are to be confidently confirmed; however they are consistent with previous research into cross-cultural rhetoric and theoretical perspectives reviewed in the literature study.

iii. Culture and the use of modal verbs

The literature study suggested that the negotiation of roles in discourse is a likely area for cross-cultural influence (Komin, 1990; Hongladarom, 2007; Hinkel, 2002). The evidence from previous research is that certain topic areas may tap into social values relating to hierarchy and roles and responsibilities. The example from Hinkel (2002, 2008) of the relatively frequent use of deontic modal verbs by East Asian writers was clearly topic controlled: Writing topics that involved the discussion of social roles and responsibilities, such as prompts involving family and education issues, elicited a higher frequency of modal verbs of obligation and necessity in the texts of East Asian writers than in native English writers. Similarly, Bickner and Peyasantiwong (1988), in their study of high school writing in Thai and English by native speakers of both languages, found a tendency for Thai writers to conclude with advice or suggestions using the Thai equivalent of *should* (*kuan*).

The fact that the two Thai Immersion groups in the current study deployed deontic modals more frequently than the EMT group on the Perfect Teacher task mirrors the findings of Hinkel (2002, 2008). The study of Thai writers writing in Thai further supports the assertion that the high frequency of modals with a deontic function may be a result of cultural influence. The difference between the frequency of deontic modal verbs in responses to both the Perfect Teacher and the Park Letter tasks used by EMT and TWT groups reached

statistical significance on the former and approached statistical significance on the latter. Thus the patterns of modal verbs with deontic function in the Thai Immersion groups' English writing directly mirrors the TWT group's writing in Thai. Overall, the evidence from the current study is consistent with the suggestion that the relatively high frequency of deontic modal verbs in Thai Immersion writing is a cultural feature.

The somewhat more frequent usage of *would* by the EIT group when compared to the EMT group is intriguing, since it appears contrary to the findings of Bickner and Peyasantiwong (1988), reviewed in chapter 4. One of the clearest distinctions between the expository of Thai and American English writers of high school age writing essays on the generation gap, was the way many American writers used counterfactuals to conclude their work, speculating about possible outcomes of actions that might solve problems created by the generation gap. Thai writers, when they concluded their essays, tended to simply summarise main points or to offer advice to problems without engaging in the counterfactual speculation typical of many English texts. Bickner and Peyasantiwong (1988, pp.172) note that English counterfactuals are formed through a "special use of the tense system" and are a crucial resource for abstract speculation in English. Thai, in contrast, does not have any specific linguistic marking for counterfactual propositions.

Hinkel (2002) suggested that the counterfactual *would* is a complex and difficult construction for learners of a second language to acquire and use effectively in writing. However, Woodward (2008), in a study of the language knowledge of Thai Early and Late Immersion international school students in year 9, found that the counterfactual *would* was used, at least by some Early Immersion Thai writers writing in English, though with some degree of ambiguity regarding whether the kind of abstract reasoning discussed by Bickner and Peyasantiwong (1988) was really in play. Moreover, Cameron and Besser (2004) found ESL students to use *would* more frequently than native speaking writers.

In the current study, *would* was only used by a single LIT writer, but was used frequently by EIT writers, particularly on the Park Letter task. This indicates an important developmental constraint on this form, suggesting that its acquisition takes considerable time. However,

though the counterfactual *would* appears to take a significant period of time to acquire, it is used more frequently by EIT writers than by EMT writers. On the face of it therefore, the current study appears contrary to the conclusion arrived at by Bickner and Peyasantiwong (2008) that Thai learners do not engage in counterfactual reasoning in the way that native English writers do, or at least to imply that learners have little difficulty in learning to express counterfactual thinking in English. It is not clear, however, that the uses of *would* in some of the Thai immersion texts marks the consideration of the outcome of imaginary conditions, and in some cases it may be deployed more in the manner of the challengeability marker *ja* (Iwasaki and Ingkaphirom, 2005, pp. 123). Careful analysis of the use of *would* by EIT writers, presented in the results section above, suggested that some EIT writers used *would* in contexts that suggest counterfactual meaning, but in other cases *would* seemed to be selected according to the grammatical context within the sentence. In other words, EIT writers were forming their own 'rules' for *would*, and these rules do not always match those of the target language.

TWT writers in the study did not express counterfactuals in their writing, suggesting, in line with Bickner and Peyasantiwong (1988), counterfactual reasoning may not be a common feature of rhetoric in Thai. The fact that some, at least, of the EIT group use *would* in a manner comparable with EMT writers may suggest that learning to use counterfactuals is not an insurmountable problem, however. The relatively high frequency of *would* in EIT responses to the Park Letter prompt may simply reflect the fact that *would* is used by some of these writers in contexts where EMT writers use *will*. Target-like use of *would* appears, therefore, to represent a challenge for Thai learners, even those who have been exposed to the language for many years through formal education, but one that can be overcome. Patterns of the usage of *would* in Thai texts appear to be controlled by factors that are more developmental than cultural. A degree of cross-linguistic influence may be at play, however, with the use of both *will* and *would* possibly influenced by the Thai particle *ja*.

iv. The interaction between cultural and developmental factors

The dimension of indirectness presents an opportunity to consider how developmental factors, including language instruction, and cultural factors may interact. As discussed above, responses to the Perfect Teacher prompt by Thai Immersion writers were both more indirect than the texts of English mother tongue writers, and display signs of reader responsibility. The characteristics of Thai Immersion English writing do not appear to reflect the direct transfer of patterns of organization seen in Thai writing. Rather, underlying cultural patterns that have been summarized as a tendency to promote social harmony and avoid conflict, and a reader-responsible stance, lead to somewhat different outcomes in English writing than for Thai writers writing in Thai. One reason for this is that Thai Immersion writers have been involved in English-medium education, have been exposed to the form of English texts, and have undergone writing instruction in English, all of which are likely to contribute to their approach to writing. Examining the features of the rhetorical structure of Thai immersion writing on the Perfect Teacher task is instructive in illustrating how such factors may interact with cultural models to mould the characteristics of ESL writing.

In the case of the Perfect Teacher responses by Thai Immersion learners, indirectness was manifested through a tendency to delay presentation of the attitudes of the writer until the concluding segments of the text, after first presenting the views of other general groups. Some Thai written responses to the Perfect Teacher prompt in particular, and to some extent, the Park Letter prompt, deployed an overall structure involving the *contrast* relation, where, in Perfect Teacher texts, two distinct teacher stereotypes were contrasted. The body of the text organized in this fashion was then interpreted as relating to the concluding segment, in which the opinions of the writer were presented, by the *justify* relation. By presenting two contrasting stereotypical teacher ideals, it was suggested, the writers believed they then had the right to present their own opinions.

One contributing factor in the preference for both the *contrast* relation as an organizational strategy within text bodies of Thai Immersion writers writing in English, and

the *justify* relation between could be writing instruction. The ESL programme at SJIS involved instruction in two forms of expository discourse: argument and discussion. The argument model presented to students during instruction involved a deductive organizational pattern, with a thesis statement expressed in the introduction and then subsequently developed in the body of the text. The discussion model, which texts written by Thai participants superficially resembles, involved an introduction presenting the issue at hand, followed by paragraphs exploring the topic and concluding with a decision on the issue at hand based on the preceding discussion. Thai writers appear to have adopted, and adapted, the discussion model in preference to the argument model. This may, to a degree, be explained by the fact that the model is less challenging to deploy: a deductive argument demands significant forward planning as it involves the formulation of a central thesis at the outset, and a clear idea of how this thesis will be subsequently developed. This is not the case with the discussion pattern. However, the texts written by many Thai writers do not precisely fit the discussion model in that the conclusion does not link directly to the evolving ideas in the body of the text. Again, this might be due to the fact that these writers are immature and still developing their knowledge of rhetorical patterns. A more plausible explanation, however, may be that cultural factors contribute to the adoption and modification of a structure encountered by Thai learners during instruction. The tendency to express the possible opposing views of others before introducing one's own opinion is consistent with the general patterns of thought identified by social psychologists as being characteristic of an Eastern tradition (e.g. Nisbett, 2003), including a tolerance of apparent contradiction and a preference to reconcile opposing views rather than to identify one as right and the other wrong.

The interaction between cultural and developmental factors may also be significant in the way writers deploy lexicogrammatical items and constructions. Research reviewed earlier in the study suggested one culturally related source of variation in writing is related to the directness of discourse (Hinkel, 1997; Matalene, 1985; Chao, 2008; Kaplan, 1966). Possibly related to this is the tendency towards what Nisbett et al (2001, Nisbett, 2003) refer to as naïve dialectic reasoning, where contradictions are tolerated, allied to the goal of social

harmony rather than personal agency. Cultural tendencies towards naive dialecticism and social harmony rather than polarisation and the impulse to identify a central core of truth may manifest themselves in diverse and complex ways within discourse, and particularly within the interpersonal resources of language. The current study has also revealed evidence of indirectness in the writing of Thai Immersion learners.

All three elements of the Appraisal framework of Martin and Rose (2007), Attitude, Amplification and Source, might be expected to show cultural effects relating to indirectness. However, the extent to which these effects are likely to be visible in written production will also be governed by the linguistic resources that a learner has in his/her productive repertoire. In the structure of the clause, Appraisal can be expressed in a number of ways. Some of these resources are acquired relatively easily by ESL learners (see Chapter 3). For example *like* and *want* appear with higher frequency in the language of ESL writers than in the language of native speakers for this reason. Other resources such as modal verbs and adverbs involved in hedging and boosting propositions in academic writing, are acquired late even by native speakers and are less frequent in the writing of ESL learners (Hinkel, 2002). Cultural models from L1 may call for indirectness, but the resources to hedge propositions at the disposal of a learner may be limited by developmental factors. The cultural and developmental factors leading to the characteristics of ESL text are thus connected. If language proficiency develops, but the cultural models drawn upon during language production remain relatively stable, then the texts of more and less proficient learners might manifest such characteristics as indirectness in slightly different ways.

Inspection of the data for the current study reveals that Late Immersion Thai students, and to a lesser extent EIT students too, make frequent use of mental and verbal processes such as *I think*, to explicitly source the attitudes that are expressed in writing. In contrast to the frequency of *I think*, is the apparent frequency of modal adjuncts (e.g. perhaps, suddenly, personally). These items appear significantly more frequently in the writing of Early Immersion Thai and English mother tongue (EMT) writers than in the writing of Late

Immersion Thai learners. The desire to modify propositions and the resources to carry out the modification may not be balanced. The resources writers deploy will therefore depend on the interaction between developmental and cultural factors, a reason why the interpretation of lexicogrammatical frequency patterns in text must be cautious. The interaction between cultural influence and the development of the resources of language is an area that warrants more research.

10.5 THE DEVELOPMENTAL AND CULTURAL FEATURES OF THAI IMMERSION WRITING

Returning to the two interpretive questions asked in the study provides a useful framework for bringing this discussion of findings to a conclusion:

The developmental question

1. How does the academic language knowledge of Thai learners in an English-medium international school develop over time?

The cultural question

2. To what extent and in what ways does Thai culture influence the writing of Thai students in English-medium education in Thailand?

The developmental trajectory earlier in this chapter presents the developmental characteristics of Thai Immersion writing. In short, it can be said that after three years of Immersion in English-medium education, Thai learners have a grounding in academic language in the form of a basic set of resources that enable them to produce elaborate but involved discourse that can function as a vehicle for quite sophisticated and fluent expression on a range of topics, but is still somewhat limited as a means of expressing complex, abstract ideas in more objective prose and continues to exhibit a relatively high density of morphological errors illustrating that control of the basic building blocks of the English clause are still undergoing an intensive period of growth. Early Immersion Thai learners, having spent as many as 11 years in English-medium education, have better control of the basic syntactic and morphological building blocks of English, as evidenced,

for example, by the significantly lower error density. In addition to this, they have an increased range of resources necessary for the kind of abstract expression with explicit reference demanded in academic contexts, including better control of passive voice and experiential and logical grammatical metaphor. On the dimension of language knowledge referred to as rhetorical competence in this study, LIT writers draw upon concrete exemplars to help them structure whole texts, as, to some extent, do EIT writers. EIT writers, however, are more able to combine rhetorical structure within the text to achieve local goals without repetition and the ambiguity seen in some LIT texts, where the rhetorical intentions are not always easy to interpret. The greater control of language at the level of the clause also probably contributes to the fact that the rhetorical effects of clause relations are easier to discern in the writing of Early Immersion writers. Compared to English Mother Tongue peers, the language knowledge of EIT writers, though it overlaps with EMT writing, is different in a number of areas. Biber's (1988) framework of dimensions provides a useful reference point in capturing these differences in terms of broad functional characteristics: Thai Immersion academic language is generally more involved and interactional than EMT writing (dimension 1), less context independent (dimension 3) and more closely resembles informationally dense discourse produced under real-time conditions (dimension 6).

Features of academic language that are acquired by Thai Immersion learners with only three years in English-medium education include some control of whole-text structure following instruction in the organizational features of text, the use of a set of cohesive conjunctions for making logical links between sentences, and knowledge of how to combine clauses into clause complexes through expansion and projection, though with a relatively narrow set of coordinators. Features of academic language that are clearly a challenge to Late Immersion writers in particular and some Early Immersion writers include nominalization and the use of abstract nouns, logical grammatical metaphor, where notions of cause and effect are expressed in the verbal group, the form and function of passive voice, and epistemic uses of modal verbs to hedge propositions, as well as the use of *would* as a marker of unreal propositions.

To conclude the discussion of the developmental features of the English language knowledge of Thai learners, development of these learners mirrors the later language development of native speakers of English, but is not identical to it. Within three years, the language of Thai immersion students moves from an Elementary level characterized by simple sentences to a version of the language that is richly complex in terms of the resources of expansion and projection, with nominal groups including post-modification by relative clauses and prepositional phrases. Late Immersion language, though complex, is not accurate. Learners at this stage of development continue to make very frequent morphological errors. Subsequent development involves a growing control of the basic building blocks of clauses, reflected in increasing accuracy within the group and clause, and an increasing flexibility of expression marked by a control of grammatical metaphor, so that processes may be expressed as things, and logical relationships may be increasingly expressed in the verbal group or through prepositional phrases deployed as circumstances. The language of English Mother Tongue writers overlaps with that of Thai Early Immersion writers, but in general they differ from this group in that they have full control of the basic morphological and syntactic building blocks of the language and greater, though still incomplete, knowledge of grammatical metaphor. Late Immersion learners achieve Complexity in their writing after three years in English-medium education but lack Control of basic forms; Early Immersion have greater Control allied to complexity, and in some cases are beginning to develop increasing Flexibility, characterized by the more varied resources of grammatical metaphor.

The current study has presented the case that this developmental picture is incomplete and that it is also necessary to consider the influence of Thai culture to approach a full understanding of the language knowledge and writing of Thai Immersion learners. Evidence presented in this study suggests that the influence of culture on academic language seems most marked in writing tasks that involve an element of persuasion. Thai writers appear to bring a reader-responsible understanding of generic purpose to their writing, leading them to be less explicit in presenting their views, and more likely to include the views of others in their English writing, since they do not necessarily identify the

purpose of an essay question such as the Perfect Teacher prompt in the current study as calling for explicitness and overt persuasion. They may even make this reader-responsible stance explicit by including disclaimer statements that state the views in the essay are their own and that the reader is free to make up their own mind on the issue. Reader responsibility is part of a more general trend to indirectness connected to an orientation to social harmony and conflict avoidance that makes Thai persuasive writing less confrontational than EMT writing; Thai writers were more likely to begin with positive statements or a balanced overview of proposed rule changes to a park, rather than beginning their writing with direct criticism. However the effects of this tendency to indirectness can be subtle and may be masked by developmental effects that reduce the writer's range of resources to produce heteroglossic discourse (discourse that acknowledges multiple voices and opinions, Martin and Rose, 2007), such as modal verbs with an epistemic function, modal adverbs and subordinate clauses of concession.

Culture also appears to exert some influence on the content of material considered persuasive by writers, with Thai writers selecting a more diverse range of material than EMT writers as satellites in rhetorical structures of persuasion such as *justify*, *evidence* and *motivation*. The material selected by Thai learners seemed to be influenced by the cultural values aligned towards collectivism rather than individualism. Finally, the findings of the current study suggest that culture also influences the frequency of modal verbs with a deontic function used by Thai learners in certain contexts, with Thai Immersion writers using these modal verbs significantly more frequently than EMT peers, a pattern that was identical to that of Thai writers writing in Thai. In this case, the cultural value at play is the notion of specific roles within society, such as those of an older sibling, a parent or, in this case, a teacher, being defined in terms of duties and responsibilities in certain East Asian societies (Hinkel, 2002). Such duties and responsibilities are most directly expressed through deontic modal verbs, and thus these forms are relatively frequent in Thai writing.

Overall, the current study provides a case example of the intricacies of multi-competence by demonstrating some of the specific ways in which the English language knowledge of

Thai Immersion learners may differ from that of a similar (in terms of age and social status) group of English mother tongue writers. Clearly, there are developmental differences between Thai Immersion learners, even Early Immersion learners who have studied in an English-medium school for 9 or more years, and EMT writers, but the process of development is not a sufficient explanation for the way Thai Immersion students write. The responses by Thai Immersion writers to the Perfect Teacher prompt are particularly instructive in showing both what cultural influence is and what it is not. The responses of Thai writers, both Early and Late Immersion, showed a consistency in both rhetorical structure and in the frequency of certain lexicogrammatical features, clearly distinguishing them from the EMT group. However, direct comparison of the rhetorical structure of Thai Immersion writing in English and Thai writers writing in Thai demonstrated that some of the more marked characteristics that differentiated Thai Immersion writing from English mother tongue writing were not directly analogous to features of the texts of Thai writers writing in Thai. To understand the influence of culture, it is necessary to consider a higher level of abstraction, and the notion of reader responsibility. Being a member of a language group and culture quite distinct from English language and culture, Thai learners bring a somewhat different understanding of text purpose and the appropriate way to build a dialogue with the reader. Learning English builds an understanding of English sentences and generic structure, but this knowledge is filtered through the cultural understandings of Thai Immersion learners, resulting in text that is distinct from both the English writing of English mother tongue students and the Thai language writing of Thai students.

10.6 THE DEVELOPMENTAL PROCESS, CULTURAL INFLUENCE AND ESL PEDAGOGY

The current study suggests a significant overlap between the needs of native speaking learners and those of Thai Immersion learners with respect to the development of literate varieties of English. In language knowledge above the sentence, including knowledge of how to build texts by combining rhetorical structures, and how to use cohesive conjunctions to label the relationships between text segments, it could be argued that both Thai Immersion learners and native English speakers would benefit from input. In addition, the goal of both Thai Immersion learners and EMT learners is to develop the range of language resources required to communicate flexibly and effectively in a broad range of contexts and for a wide range of purposes, what has been termed linguistic literacy (e.g. Ravid and Tolchinsky, 2002). The main contrast between Thai Immersion learners and English mother tongue learners is not so much the objective of English language education in the context of an international school, but rather in the stage they have reached in their learning and the cultural knowledge of text that they bring to the classroom. Supporting Thai ESL learners effectively should involve careful consideration of these issues.

The current study suggests that certain aspects of language knowledge that enable flexibility of expression, including such things as experiential and logical grammatical metaphor, passive voice and the use of more varied interpersonal resources including modal adverbs and epistemic modal verbs, present something of a problem even to most Early Immersion learners, and should form part of an English curriculum catering for these learners. However, such aspects of grammar are not traditionally part of secondary school English teaching and explicit teaching about how the grammatical resources of English are used to communicate effectively are undermined by a general lack of a sound theoretical underpinning to the link between grammar and writing (Myhill, 2005). Systemic Functional Grammar (e.g. Martin and Rose, 2007, 2008) offers a theory of language that links grammar with how language is used to communicate, and has the potential to provide descriptions of language that can be usefully applied within both curriculum documents

and the classroom. There is evidence that integrating grammar into writing instruction, so that a better understanding of how communicative goals are achieved through the resources of grammar can be effective in mainstream secondary English classrooms (Jones, Myhill and Bailey, 2013). If such an approach was adopted more systematically, it would be to the benefit of ESL learners.

Another point, regarding assessment, emerging from the current study relates to the fact that learners develop the resources for complexity before they have the control over the structure of the clause. Late Immersion writers are able to embed clauses within nominal groups, expand information by forming hypotactic clause complexes using a basic range of subordinators and project thoughts and sayings through mental and verbal processes, but at the same time made frequent errors within nominal and verbal groups, including errors of omission of BE, failing to inflect plural nouns, errors with articles and other categories. The study suggests that complexity before control should be seen as a general rule of acquisition for immersion learners. The National Curriculum level descriptors for English appear to work on the assumption that writers achieve control of simple sentences, including the basic structure of nominal and verbal groups, before writers begin to use subordinate clauses, an assumption that would be valid for English native speaking children. The descriptor for level 3 states “The basic grammatical structure of sentences is usually correct.” (QCA, 2010, see appendix v.). None of the LIT group in the current study would satisfy this statement. However, level 4 states, “Pupils are beginning to use grammatically complex sentences, extending meaning.” This is certainly true for LIT writers. This contrast between the appearance of complexity and control in Thai immersion learners has the potential to make assessment of these learners using National Curriculum level descriptors problematic, if the assessment scales are applied as they are written, since the developmental sequence of the learners does not match that assumed by the writers of the National Curriculum. Such a mismatch is likely to result in a degree of inconsistency in assessment between assessors as each assessor attempts to achieve a best fit between the writing and the scales. This study focused on Thai learners, and the extent to which this issue is universal to writers with English as a second language remains an

open question. Given that the English National Curriculum is supposed to cater to all learners in the UK, including those with English as a second language, this is a matter that the writers of the National Curriculum for English might be well advised to consider.

The findings of the study regarding the cultural influence on the language knowledge of Thai immersion learners also have some pedagogical implications. It cannot be assumed that cross-cultural influence will have consequences that are by necessity negative. It nevertheless must be recognized that learners with ESL, whether they are studying in Thailand or the UK, may be influenced by their first culture to produce written texts that do not fulfill the expectations of native speaking readers. It is important, therefore, that teachers be attuned to aspects of the culture of their students and to consider objectively the extent to which first culture may influence their writing. Part of the role of a writing teacher is to encourage learners consider the minds of their readership. Although English is an international language and it is false to imply that ownership of the language resides in the UK, the USA or any other country in which English is the first language, learners of English in a secondary school will ultimately be assessed by external examiners who will almost certainly have a native English speaker's assumptions of what constitutes effective writing. If a task calls on the writer to present a point of view, they will expect to see that point of view emerge in the text, supported appropriately by evidence and explanation. The reader will probably not find a response satisfactory if it simply presents possible points of view and leaves the question open, as some writers in the current study did when asked to write about the Perfect Teacher. In order to help learners understand the expectations of a native speaking reader, the use of model texts as examples of how writers develop an argument would appear to be imperative. Comparing texts that meet reader expectations and those that do not, and discussing why this is the case is another approach that might help learners understand both the form of effective writing and the thinking that underpins it. It should be stressed that the use of model texts should not become a straightjacket; rather it ought to be a teaching strategy that demystifies the writing process by looking at the exemplar text as a reasonable response to a particular task in a particular context.

To conclude, the current study provides information about the English language knowledge of Early and Late Immersion Thai learners, and learners with English as a mother tongue. In classes incorporating both Thai immersion learners and native English speakers it is suggested that teachers should plan work focusing on specific aspects of the grammar of English for all learners, making more use of model texts than is commonly the case in secondary English classrooms. The nature of this language work should be informed both by what is known about the features of academic language knowledge and by careful assessment of learner language, drawing upon the techniques used in the current study. It is also suggested that care should be exercised when using the National Curriculum level descriptors, which do not include sufficient description of key features of the system of English, and do not necessarily reflect the developmental trajectory of learners with ESL. At the very least, such assessments should be supplemented with further information on key elements of language, including such things as the interpersonal features of language used, the features of nominal groups, the features of verbal groups and the way a writer builds clause complexes and makes logical links between propositions. Finally, teachers should be aware of the ways in which culture may influence writing, and help learners to understand the expectations of native speaking reader when they read a particular genre.

Chapter 11 – Conclusion

11.1 INTRODUCTION

The study has explored the idea that in order to understand the language knowledge of Thai immersion learners in an English-medium international school, it may be necessary to consider both developmental and cultural factors. The literature study reviewed research into how language knowledge develops in writers with ESL and how culture influences language knowledge and writing. A framework largely drawn from systemic-functional linguistics was used to collect and analyse data on the frequency of selected lexicogrammatical items and constructions. This work was supplemented by rhetorical structure analysis using Rhetorical Structure Theory, and the close analysis of how certain elements of language, and of content, functioned within the rhetorical structure, such as the source of attitudes in clause packages and the nature of material used as satellites to affect persuasion.

This final chapter summarises the conclusions of the study, including its practical implications, discusses the original contribution that the study has made, reviews some of the shortcomings of the study and finally suggests areas for further research.

11.2 CONCLUSIONS

i. How does the academic language knowledge of Thai Immersion learners develop?

The developmental trajectory of Thai immersion learners can be summarized as a progression from *Simplicity* through *Complexity* to greater *Control* and towards increasing *Flexibility* of language use. Late Immersion learners in year 9, after approximately 3 years in an English-medium school, acquire the knowledge to produce a range of complex sentences involving hypotactic expansion and projection, but lack control of the basic clause structure of English. Early Immersion learners have significantly greater control of basic clause structure, as illustrated by the difference in error frequency between the two groups, and the fact that certain error categories, notably omission of BE, are frequent in

the language of late Immersion writers and all but absent in the writing of Early Immersion learners.

Other significant differences can be characterized by the development of language towards increasing flexibility: Early Immersion learners begin to use experiential and logical grammatical metaphor; they have increasing control of modal verbs with an epistemic function; and they begin to use circumstantial elements for a wider range of functions, including the expression of logical links between propositions. Early Immersion learners are also more able to combine rhetorical structures flexibly to achieve a single, overarching purpose, making their texts more coherent and easier for a reader to follow when compared to LIT texts.

Some elements of academic language knowledge appear early. Late Immersion learners used cohesive conjunctions (e.g. *moreover*, *however*) more frequently than Early Immersion learners, though with more errors in the choice of conjunction. Late Immersion learners, in most cases, also developed quite deep rhetorical structures, which seemed to rely heavily upon the form of taught exemplar texts. After three years in an English-medium school, Late Immersion Thai writers are able to use hypotactic expansion to combine clauses with a small range of subordinators (if, because, to (purpose), by). In addition, they use hypotactic expansion to project thoughts and sayings, enabling them to explicitly refer to the source of attitudes in text. In the verbal group, Late Immersion writers used modal verbs with a deontic function and began to use a small range of secondary tenses in appropriate contexts, including present progressive and present perfect simple, though with some errors in form. Areas of academic language that remain a challenge to learners after three years of immersion include passive verbs, experiential and logical grammatical metaphor, and related to these factors, the ability to produce discourse that is less involved and conversational, and more abstract and objective.

ii. How is the language knowledge of Thai Immersion learners different to that of English mother tongue writers of similar age?

The language knowledge of Thai Early Immersion learners, those with as many as 9 years in English-medium education, overlaps with that of English mother tongue learners, but as a group, EMT learners have greater flexibility in their language knowledge. Specifically, this means that EMT learners have a greater range of resources for expression. For example, they may express causal relations between propositions through a cohesive conjunction, or through nominalisation and the use of verbs of cause (e.g. *cause*, *lead to*), or alternatively through a circumstance expressed through a prepositional phrase (e.g. *due to* the crowds). Some Early Immersion learners are beginning to master the resources to enable this flexibility, but as a group, EMT writers have a greater range of these resources.

In addition to this, and partially as a result of it, when compared to EMT writing, the writing of Thai Immersion learners, both Early and Late, tends to be more involved in the sense that the term is used in Biber (1988) to refer to text (possibly written but mostly spoken) that includes frequent use of the resources used in informal, face-to-face interaction, such as personal pronouns in the subject slot and projection through mental and verbal processes. However, some EMT writers in the study also deployed an involved style in contexts that called for a more objective style.

iii. How does Thai culture influence the language knowledge and writing of Thai immersion learners of English?

There were four areas in which anomalous features of Thai immersion writing paralleled patterns in Thai writing in Thai. Firstly, on the Perfect Teacher task, which called on students to present their opinions on a particular topic, Thai Immersion writers were less explicit in supporting their own opinions when compared to EMT writers. Thai Immersion writers tended to present the views of other groups before giving their own opinions as to the nature of a perfect teacher, making their writing more indirect than that of EMT

writers. The Thai writing of the TWT group did not present the views of other groups, as the Thai Immersion groups writing in English did (e.g. *Some students think that...*), but their writing on the Perfect Teacher task resembled the concluding statements of many Thai Immersion writers. In both cases, the characteristics of a perfect teacher were presented as a sequence of points with relatively little supporting detail. Some Thai writers also deployed disclaimers in their writing, or similar statements interpreted as functioning in a *justify* relation with the opinions of the writer. These statements were interpreted as functioning to reduce any sense of obligation on the part of the reader to adopt the views of the writer. Such statements can be interpreted as evidence of a reader-responsible stance, and also link to the second point, below, relating to the avoidance of potential conflict and a strong preference for social harmony.

Secondly, there was some evidence that Thai writers writing in Thai, and Thai Immersion writers were less likely to present potentially face-threatening material in introductory segments of texts with a clearly-defined audience. In responses to the Park Letter prompt, Thai writers were more likely to include positive statements or balanced statements about proposed rule changes than English mother tongue writers, some of whom began texts by stating only negative attitudes towards the proposals.

Thirdly, Thai writers writing in Thai and the Thai Immersion groups deployed more varied content in satellite segments in persuasive rhetorical structures (i.e. those rhetorical structures, notably *motivation* and *evidence*, with a purpose to affect the behaviour or attitudes of the reader). On the Park Letter task, when discussing a proposed rule change banning ball games during the week, the content deployed by Thai writers writing in English and Thai included reference to such things as the feelings and attitudes of park users to the proposed changes and the effects on opportunities to meet as a group. English writers referred to a narrower set of concerns, notably safety and overcrowding.

Finally, both Thai writers writing in Thai and Thai Immersion writers writing in English used modal verbs with a deontic function more frequently than did English Mother Tongue writers.

Based on these findings, it can be tentatively concluded that some of the characteristics of Thai Immersion writing can best be explained in terms of cultural influence rather than in terms of broad developmental factors, though cultural influence and developmental factors interact in determining those characteristics of Thai Immersion writing that differentiate it from the writing of a similar group of English mother tongue students. The influence of culture on writing is affected significantly by genre, the contextual variables field, tenor and mode, and how writers identify and attend to these variables within a particular task. The current study suggests tasks that involve an element of persuasion, and those tasks identifying a very specific audience to whom the attitudes of the writer are directed, are likely to show the most significant evidence of cultural influence.

Firstly, the notion that languages may be characterized as either reader or writer responsible (Hinds, 1987) can account for some of the characteristics of both Early and Late Immersion writing in English, and of Thai writers writing in Thai, manifested in responses to a task that called on writers to present the characteristics of a perfect teacher. Thai writers seem to make the assumption that the reader is primarily responsible for decoding the meanings of the writer, and the writer, by the same token, does not need to be so explicit in his writing. As a result, Thai writers might be expected to be less explicit and detailed in their presentation of their particular point of view, which indeed was the case in the current study on the task that involved expressing an opinion as to the qualities of a “perfect teacher”.

A second cultural understanding that Thai writers appear to bring to their English writing is the notion that social harmony is paramount (Komin, 1990). This can explain the tendency for Thai writers to avoid direct criticism in the introductory segments of texts responding to the Park Letter prompt, which asked writers to respond to proposed rule changes for a public park.

Thirdly, Thai culture appears to influence the material that Thai writers consider persuasive. As highlighted above, Thai writers writing in both Thai and English chose a wider range of material as satellite segments in persuasive rhetorical relations. Based on

this difference in choice of content, it could be tentatively suggested that English writers had a somewhat greater tendency to discuss groups of people and their effects as single, abstract entities, whereas Thai writers showed a greater tendency to consider groups as being composed of a collection of individuals and to attach greater importance to the thoughts, feelings and emotions of those individuals. This tendency could reflect the fact that Thai culture is more collectivist (interdependent) than English culture (Hofstede, 1980, 2009 a., 2009 b.; Schwartz,1999).

Finally, Thai culture may induce a tendency in writers to perceive certain social roles in terms of duties and responsibilities, and to express this understanding in writing through the frequent use of modal verbs with a deontic function (Hinkel,2002). This was seen, particularly, on the Perfect Teacher task, where Thai writers writing in Thai and Thai Immersion writers writing in English both used deontic modal verbs significantly more frequently than did English mother tongue writers when describing the characteristics of a good teacher.

Given the relatively small data set, it is important to be tentative in putting forward these conclusions. Nevertheless, it can be asserted with reasonable confidence that the English writing of Thai learners differs from that of English mother tongue writers in ways that suggest culture has played a part in shaping the writing. Further research, testing the findings of the current study with respect to the cultural influence on Thai immersion writing, would be necessary to confirm the details of this influence with a greater degree of confidence.

11.3 PRACTICAL IMPLICATIONS

i. **Teaching English to Thai learners in an English-medium classroom**

Thai learners need to develop the flexibility to write a range of texts in the academic environment of middle to upper secondary school, as do their English mother tongue peers. Evidence from the current study suggests that even Early Immersion Thai learners, with more than 9 years in English-medium education by the end of key stage 3, tend to lag

behind EMT peers with respect to the resources required to do this. A systematic exploration of the features of language required in the different contexts for writing that arise in school would provide greater opportunities for learners to notice the way language functions to express meanings appropriately and flexibly. It is therefore suggested that some explicit teaching of the resources writers use should be incorporated into the secondary English curriculum of international schools, where learners with ESL are taught alongside pupils with English as a mother tongue. This work could be facilitated by the adoption of a pedagogic framework drawing upon systemic functional linguistics, systematically investigating the ideational, interpersonal and textual features of writing (Martin and Rose, 2008).

With late immersion learners, such as those investigated in the current study, there is an argument that at least some of their English language instruction should be orientated more strongly towards their needs as ESL learners than could be accommodated in a classroom with a mixed population including English mother tongue learners. It is therefore suggested that these learners should spend some curriculum time receiving instruction in academic English language from a specialist ESL teacher.

The findings of the study with respect to cultural influence suggests that Thai learners such as those investigated in the current study should be given an opportunity to understand the choices made by skilled writers in English by exploring model texts and discussing the rhetorical and lexicogrammatical features of these texts and how they have realized the writer's purpose. Discussion of reader expectations with regard to such things as the explicitness of the writing, the directness or indirectness of persuasion and the evidence deployed in persuasive rhetorical relations might help orient Thai writers towards these reader expectations.

ii. Assessment and the tracking of learner progress

It is important, when assessing the development of learners with English as a second language, to monitor the development of the resources of language learners need to master if they are to communicate effectively in an academic context. The approach

adopted in the current study, which involved placing text in table form so that the resources deployed in different clause slots could be analysed, offers a possible technique that could be applied in assessment, at least to segments of text. Even without tabulation of text samples, careful logging of key resources deployed by writers, such as the use of grammatical metaphor, the modification of nominal groups, particularly those in the subject slot, the use of a range of subordinators marking hypotactic expansion, cohesive resources and the resources used to express affect in writing can provide a profile of the development of academic language knowledge.

It would be of benefit if assessment scales tracking the development of both English mother tongue writers and learners with ESL included more explicit reference to the developing language resources used by writers. The developmental trajectory for Thai immersion learners presented in the current study offers a starting point for the more accurate assessment and tracking of the progress of Thai learners.

The current study suggests a developmental trajectory moving through a stage of complexity well before control has been achieved. In other words, learners use a range of complex structures well before they have control of the structure of the nominal and verbal groups, and continue to make frequent errors with such things as plural inflections, articles and the verb BE while writing with considerable complexity in terms of the deployment of embedded and subordinate clauses. Assessment schemes (e.g. the NC levels for English, see Appendix v.) appear to make the assumption that a basic level of control comes before complexity. It is likely that such schemes will not effectively identify levels of proficiency in Thai learners with consistency.

11. 4. ORIGINAL CONTRIBUTION

The current study makes an original contribution to the field by extending the research into an original context, expanding what is known about the specifics of the development of academic language knowledge in ESL learners, and in its focus on both cultural and developmental factors in the writing of school-age students.

Although much research has been undertaken on the development of second language in immersion contexts (e.g. Harley, et al, 1990; Lightbown, 2000; Kowal and Swain, 1997), this research has invariably involved language groups with closely related languages, notably English and French in the case of research into language immersion. The current study builds on this work by investigating the development of the English language knowledge of Thai learners, whose mother tongue is not closely related to English, in an immersion environment where English is not the language of choice for most people outside the classroom. The study has concentrated on academic aspects of language knowledge, and how these features are used in the writing. As pointed out by Christie and Derewianka (2008), there has been relatively little work done on grammatical development in writing, even of native speakers of English. The work of Cameron (2003) and Cameron and Besser (2004) are notable in that they investigate grammar in the writing of UK ESL learners from a linguistic perspective. The current study contributes by investigating school-age ESL learners in a novel context, Thailand, and by focusing more precisely on the developmental trajectory of features of academic language in ESL writing.

Research suggesting that academic language proficiency takes as many as 8 years to develop to adequate levels for learners with ESL to achieve their full potential have largely been based on studies of ESL achievement on various officially mandated tests (e.g Collier 1992). The current study has added detail to this picture by revealing a developmental trajectory for some of the components of academic language knowledge. The developmental phases identified in the study, labelled *Simplicity*, *Complexity*, *Control* and *Flexibility*, highlight the fact that, for these Thai second language learners at least, the basic resources required to combine clauses into complex sentences are learned before control of morphology within verbal and nominal groups is achieved, a fact with clear implications for assessment and tracking of progress. Moreover, the challenge learners face to develop the resources required for abstract, flexible expression, notably ideational and logical grammatical metaphor, have implications for the teaching of English to more advanced ESL learners and, possibly, native speakers of English. One important and original practical outcome of the study relating to the focus on development is the detailed developmental

trajectory (Appendix iv.), which can potentially inform both curriculum development and the development of more effective assessment tools.

A further contribution of the current study relates to the scope of its focus. The study has examined the influence of both developmental and cultural factors on the writing of Thai learners of English. Investigations of cultural influence on the English writing of second language learners have been criticized because they have sometimes ignored developmental factors (Mohan and Lo, 1985). Features of second language writing that deviate from English mother tongue norms may be attributable to a combination of cultural and developmental factors to some degree. To ignore one or the other of these two factors in a research project that seeks to gain a deep understanding of a particular group of second language learners is to risk drawing erroneous conclusions.

While the study has highlighted the challenges inherent in unpicking developmental and cultural factors as the causes of particular features in second language writing, it can nevertheless be stated with some confidence that certain features of the writing of Thai immersion students can best be explained by reference to Thai cultural patterns, notably, the use of disclaimer statements in writing and the associated preference for *justify* relations at whole-text level in certain tasks, and the frequency of deontic modal verbs in certain tasks. Hongladarom (2007) showed how Thai speakers use disclaimer statements when speaking their native language. The current study suggests this tendency is transferred into the English writing of Thai learners of English. Moreover, Bickner and Peyasantiwong (1988) concluded that Thai first language writing of an expository nature by high school pupils tended to list characteristics that defined an issue rather than speculate about the solutions to the issue. The current study builds upon this work: It indicates that Thai Immersion writing in English shows similar features, and in addition, tentatively suggests a theoretical explanation for these features, reader responsibility (Hinds, 1987).

11.5 SHORTCOMINGS

The current study could be open to criticism on three main counts: Firstly, the study is small in scale. It therefore lacks the statistically robust data set of larger studies, and in

addition, it could be argued that the results of the study may not be generalized with confidence to other contexts. Secondly, the study drew upon an analytical technique that is to some extent subjective, Rhetorical Structure Theory. Thirdly, it was not possible for the researcher to supervise the collection of all texts, and it is therefore possible that there was some variation in the precise conditions under which writing tasks were completed.

The current study drew upon quantitative analysis of the frequency of lexicogrammatical items and constructions in order to objectively compare the writing of participants and groups. As a small scale study, the relatively limited data set prevented the application of inferential statistics and so introduces a degree of uncertainty regarding the statistical significance of differences between groups. This fact is acknowledged. It can nevertheless be argued that conclusions drawn from statistical data are informed and supported by descriptive data; that the picture of the language knowledge of Early and Late Immersion Thai learners which emerges is consonant with what is already known about later language development and the influence of culture on second language writing; and that the conclusions presented in the current chapter can therefore be advanced with a reasonable level of confidence.

A second issue relating to the methodology of the study was discussed in chapter 2. Analysis of rhetorical structure using RST involves an interpretation by the analyst of plausible reasons why two segments of text have been juxtaposed. It is often the case that more than one interpretation is possible. It would have been desirable for RST analyses to have been also completed by a second analyst as a check on reliability. Unfortunately, in the circumstances this was not feasible. Despite this shortcoming, there are, once again, reasons to advance the conclusions of the study with a reasonable level of confidence. Rhetorical Structure Theory was selected as an approach largely because of the process that analysis involves. Specifically, RST analysis necessitates a close reading of text and relations are assigned without any preconceptions about the structure that may eventually emerge. The approach, through this bottom-up process, provided very useful insights into the facility by which relations were combined by writers to achieve local and global goals,

as well as revealing overall text structures and providing a tool for describing these structures formally. Occasional inconsistencies in the identification of relations within texts, should they exist, are unlikely to affect the overall conclusions that were reached on the basis of the RST analysis, since the frequency of relation types were not compared quantitatively.

Finally, the collection of texts produced by the EMT and TWT groups could not be supervised, which opens up the potential for some variability in the conditions under which the tasks were completed. It can be asserted confidently however, that samples of writing represent first drafts by the target groups, given the length of the texts, including all the signs of texts drafted in a single sitting such as crossings out and slips in spelling and syntax. There is no reason to suppose that the schools involved would allocate much more than the suggested 40 minutes for each task. Therefore, though variation in the length of texts, and particularly the rather short texts written by the TWT group, suggest the possibility of some variation in time allocation, perhaps the most important condition, namely that all texts should be completed independently at a single sitting, was kept constant for all groups.

11. 6 AREAS FOR FURTHER RESEARCH

1. Further investigation of the influence of culture on the English writing of Thai immersion learners of English

One area that warrants further investigation is the influence of culture on the English writing of Thai Immersion learners. The current study has suggested that reader responsibility, a strong preference for social harmony, a preference for selecting somewhat different supporting material for persuasion, and a tendency to use modal verbs with a deontic function more frequently than native speaking writers on certain tasks. A study involving a larger data set collected using a single task designed specifically to tap into these potential areas of cultural influence would consolidate the work of the current study further. It would also be of interest to investigate how mature Thai writers,

who may provide a clearer example of cultural knowledge unencumbered by developmental factors, approach such a task.

2. Further investigation of the development of certain features of academic language knowledge

The study suggested that identifying clauses linking abstract participants may be a late developing aspect of language knowledge playing an important role in the expansion of meaning potential. A study focusing closely on the use of such constructions, how these constructions develop and the roles that they play in the academic writing of mature and school age writers with ESL and English as a mother tongue may be informative in further determining the finer details of the development of academic language knowledge. Similarly, a more detailed investigation of the development of passive verb constructions in ESL writing might also prove informative.

3. An investigation of the perceptions and reaction of teachers towards the features of Thai ESL writing

The current study has identified certain features of the English writing of Thai learners that are divergent from the norms of English mother tongue writing. It would be of some interest to investigate how these features, and particularly those features that arise from cultural influence, are perceived by teachers and potential markers of examination scripts.

11.7 FINAL REMARKS

It seems appropriate to end with a brief personal reflection on the process of completing this thesis and the research it presents. Language is staggeringly complex, and it is consequently a challenge to capture enough of this complexity without becoming lost within it. This project grew from a desire for answers and a feeling of dissatisfaction with the way things were done in the school in which I was then working. Were the methods used to educate the Thai ESL students in that school appropriate? There appeared a clear need for more evidence. From the seeds of those simple questions, larger questions grew. Addressing these questions demanded engagement with the complexity of learner

language and navigating this forest of complexity proved one of the greatest challenges in completing the study. The success of this journey through the jungle of written language must be judged by others, but the process of questioning, collecting evidence and engaging with the complex nature of written language has a value in itself that cannot be overstated. As a teacher, it reinforced the importance and the effectiveness of learning by doing, but it has also reinforced the conviction that linguistic theory has a greater role to play in language and literacy education than it currently appears to assume.

Word Count 69852

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Appendices

Appendix i. – RST Relations used in the current study (adapted slightly from Taboada, 2014)

Definitions of Presentational Relations			
Relation Name	Constraints on either Satellite (S) or Nucleus (N) individually	Constraints on N + S	Intention of Writer (W) towards Reader (R)
Antithesis	on N: W has positive regard for N	N and S are in contrast (see the Contrast relation); because of the incompatibility that arises from the contrast, one cannot have positive regard for both of those situations; comprehending S and the incompatibility between the situations increases R's positive regard for N	R's positive regard for N is increased
Background	on N: R won't comprehend N sufficiently before reading text of S	S increases the ability of R to comprehend an element in N	R's ability to comprehend N increases
Concession	on N: W has positive regard for N on S: W is not claiming that S does not hold;	W acknowledges a potential or apparent incompatibility between N and S; recognizing the compatibility between N and S increases R's positive regard for N	R's positive regard for N is increased
Enablement	on N: presents an action by R (including accepting an offer), unrealized with respect to the context of N	R comprehending S increases R's potential ability to perform the action in N	R's potential ability to perform the action in N increases
Evidence	on N: R might not believe N to a degree satisfactory to W on S: R believes S or will find it credible	R's comprehending S increases R's belief of N	R's belief of N is increased
Justify	none	R's comprehending S increases R's readiness to accept W's right to present N	R's readiness to accept W's right to present N is increased
Motivation	on N: N is an action in which R is the actor (including accepting an offer), unrealized with respect to the context of N	Comprehending S increases R's desire to perform action in N	R's desire to perform action in N is increased
Preparation	none	S precedes N in the text; S tends to make R more ready, interested or oriented for reading N	R is more ready, interested or oriented for reading N
Restatement	None	on N + S: S restates N, where S and N are of comparable bulk; N is more central to W's purposes than S is.	R recognizes S as a restatement of N
Summary	on N: N must be more than one unit	S presents a restatement of the content of N, that is shorter in bulk	R recognizes S as a shorter restatement of N

Definitions of Subject Matter Relations			
Relation Name	Constraints on either S or N individually	Constraints on N + S	Intention of W
Circumstance	on S: S is not unrealized	S sets a framework in the subject matter within which R is intended to interpret N	R recognizes that S provides the framework for interpreting N
Condition	on S: S presents a hypothetical, future, or otherwise unrealized situation (relative to the situational context of S)	Realization of N depends on realization of S	R recognizes how the realization of N depends on the realization of S
Elaboration	none	S presents additional detail about the situation or some element of subject matter which is presented in N or inferentially accessible in N in one or more of the ways listed below. In the list, if N presents the first member of any pair, then S includes the second: <ul style="list-style-type: none"> ☐ set :: member ☐ abstraction :: instance ☐ whole :: part ☐ process :: step ☐ object :: attribute ☐ generalization :: specific 	R recognizes S as providing additional detail for N. R identifies the element of subject matter for which detail is provided.
Evaluation	none	on N + S: S relates N to degree of W's positive regard toward N.	R recognizes that S assesses N and recognizes the value it assigns
Means	on N: an activity	S presents a method or instrument which tends to make realization of N more likely	R recognizes that the method or instrument in S tends to make realization of N more likely
Cause	None	S, caused N; without the presentation of S, R might not know the particular cause of the situation or action; a presentation of N is more central than S to W's purposes in putting forth the N-S combination.	R recognizes S as a cause of N
Result	None	N caused S; presentation of N is more central to W's purposes in putting forth the N-S combination than is the presentation of S.	R recognizes that N could have caused the situation in S
Purpose	on N: N is an activity; on S: S is a situation that is unrealized	S is to be realized through the activity in N	R recognizes that the activity in N is initiated in order to realize S
Solutionhood	on S: S presents a problem	N is a solution to the problem presented in S;	R recognizes N as a solution to the problem presented in S

Note: The current study did not differentiate between volitional and non-volitional causes and results, as is the case in the relations presented by Taboada (2014).

Definitions of Multinuclear Relations		
Relation Name	Constraints on each pair of N	Intention of W
Conjunction	The items are conjoined to form a unit in which each item plays a comparable role	R recognizes that the linked items are conjoined
Contrast	No more than two nuclei; the situations in these two nuclei are (a) comprehended as the same in many respects (b) comprehended as differing in a few respects and (c) compared with respect to one or more of these differences	R recognizes the comparability and the difference(s) yielded by the comparison is being made
Disjunction	An item presents a (not necessarily exclusive) alternative for the other(s)	R recognizes that the linked items are alternatives
Sequence	There is a succession relationship between the situations in the nuclei	R recognizes the succession relationships among the nuclei.

Appendix ii. Grammar test used with participants at the end of year 6

Part 1 – Grammar Awareness

EXAMPLE

Look at the three sentences. Only one is correct. The CORRECT one is UNDERLINED.

- a. He not like ice cream.
- b. He doesn't like ice cream.
- c. He doesn't likes ice cream.

Now read the sentences below and underline the correct one.

1.	<ul style="list-style-type: none"> a. He live in Thailand. b. He lives in Thailand. c. He live in Thailand.
2.	<ul style="list-style-type: none"> a. She arrived yesterday. b. She was arrive yesterday. c. She have arrive yesterday.
3.	<ul style="list-style-type: none"> a. He is more tall than his sister. b. He is more taller than his sister. c. He is taller than his sister.
4.	<ul style="list-style-type: none"> a. I've got two brothers. b. I got two brothers. c. I has got two brothers.
5.	<ul style="list-style-type: none"> a. I am here since yesterday. b. I've been here since yesterday. c. I was here since yesterday.
6.	<ul style="list-style-type: none"> a. She isn't come from Thailand. b. She doesn't come from Thailand. c. She don't come from Thailand.
7.	<ul style="list-style-type: none"> a. In the room, have three chairs. b. In the room, there are three chairs. c. In the room, has three chairs.
8.	<ul style="list-style-type: none"> a. I usually gets up at 6 o'clock. b. I'm usually getting up at 6 o'clock. c. I usually get up at 6 o'clock.
9.	<ul style="list-style-type: none"> a. Coca Cola invent in America b. Coca Cola is invented in America c. Coca Cola was invented in America.
10.	<ul style="list-style-type: none"> a. He was driving home when the accident was happened. b. He drove home when the accident was happening. c. He was driving home when the accident happened.
11.	<ul style="list-style-type: none"> a. I'm very interested in sport. b. I'm very interesting in sport. c. I have very interested in sport.

12.	<ul style="list-style-type: none"> a. There are only a few people here tonight. b. There are only a little people here tonight. c. Tonight, have only a few people here.
13.	<ul style="list-style-type: none"> a. She has lived in the city since she was born. b. She lives in the city since she was born. c. She have lived in the city since she was born.
14.	<ul style="list-style-type: none"> a. There wasn't any food left when I arrived. They were eating all of it. b. There wasn't any food left when I arrived. They had eaten all of it. c. There wasn't any food left when I arrived. They have eaten all of it.
15.	<ul style="list-style-type: none"> a. The room was empty. There weren't some people at all. b. The room was empty. There weren't any peoples at all. c. The room was empty. There weren't any people at all.
16.	<ul style="list-style-type: none"> a. The valley between the two mountains is suitable for growing grapes. b. The valley that between the two mountains is suitable for growing grapes. c. The valley is between the two mountains is suitable for growing grapes.
17.	<ul style="list-style-type: none"> a. The door's open so he must arrive already. b. The door's open so he must arrived already. c. The door's open so he must've arrived already.
18.	<ul style="list-style-type: none"> a. Bangkok is a city that have a terrible traffic problem. b. Bangkok is a city that has a terrible traffic problem. c. Bangkok is a city where has a terrible traffic problem.
19.	<ul style="list-style-type: none"> a. Thailand is one country that is Buddhist. b. Thailand is one country where is Buddhist. c. Thailand is one country have Buddhist.
20.	<ul style="list-style-type: none"> a. If I am you, I'd work much harder. b. If I were you, I'd work much harder. c. If I were you, I'll work much harer.
21.	<ul style="list-style-type: none"> a. He took his umbrella because of raining. b. He took his umbrella because of it was raining. c. He took his umbrella because of the rain.

Part 2 – Words in Context

Text 1

Put words from the box in the gaps. Put ONE word in each gap. There are more words than gaps.

Traffic	<i>In</i>	would	stolen
too	in	bored	steal
because	come	boring	any
had	comes	pizza	some
have	few	however	could
less	little	is	bad

I live e.g. **in** Bangkok now, but I was born in the north of Thailand. Chiangmai is the most famous of the northern cities. It is quite a big city, but it is much smaller than Bangkok. The weather is also different. In Bangkok it's nearly always hot, but Chiangmai _____ quite cool in the winter. The scenery is different _____. In the north of Thailand, there are a lot of mountains. Bangkok, on the other hand, is flat and much _____ beautiful.

My brother and I _____ from Lampang, which is near Chiangmai. My mother has a small restaurant there. She sometimes comes to visit me _____ Bangkok, but she doesn't like the city very much. I _____ lived in Bangkok for ten years now. I enjoy living here but I hate the _____.

Next year I am going to study in England. I am excited about this _____. I have always wanted to study overseas. When I come back to Thailand, I think I _____ like to go and live in the north of Thailand again.

Last night, I went to a restaurant with my brother. We were _____ with Thai food so we decided to eat pizza for a change. I ordered seafood _____, which is my favourite. I was really hungry, and I _____ hardly wait to tuck into it. When it arrived, _____, I was very disappointed. The pizza only had a _____ prawns on it and there weren't _____ shellfish at all. After we _____ finished and paid the bill, we went out to the car park. That was when I got a terrible shock. My car was missing. Someone had _____ it. They must have taken it while we were eating. It was a _____ end to a bad evening.

Text 2

Put words from the box in the gaps. Put ONE word in each gap. There are more words than gaps.

Purify	stopping	absorbing
they	stop	is
valuable	rainforests	are
destroyed	rainforest	are
destroy	and	of
	most	to

Rainforests Around the World

Almost all the World's tropical rainforests e.g. **are** found in a belt around the Equator. _____ occupy about 9% of the planet's land area. Rainforests contain half _____ all plant and animal species. Globally, there _____ three major areas of rainforest, with smaller areas in Central America, Madagascar and Queensland, Australia.

Tropical _____ provide us with wood, food and medicines as well as other _____ products. They help to _____ the air that we breathe and combat the Greenhouse Effect by _____ carbon dioxide. The forests are home _____ indigenous people, and countless plant and animal species. Yet they are being _____ at an alarming rate. Why is this, and _____ important of all, what can we do to _____ this?

Total _____

Appendix iii. – Writing task prompts

Robot Progress

You work for a company that develops hi-tech robots. You have been building a robot to perform a range of tasks in the home.

You receive this request from your company manager.

The first fully working version of the robot should be nearly complete.

Can you write a detailed report, explaining:

- ◆ how some of the problems have been sorted out
- robot too noisy, not finishing tasks, etc;
- ◆ which functions are now working well and how they could be used by different people;
- ◆ what improvements still need to be made.

Include anything else you need to update me on.

Write a report for the company manager explaining the progress made on the robot.

You have 40 minutes to complete the task

(Robot Progress task prompt)

Space for everyone?

There is a small park in your area which is used by people of all ages.

The following notice appears on the gate:

Public notice

As a result of concerns over safety, it is proposed that:

- a skateboard ramp is built on the grass area
- skateboarding is no longer allowed on the paths
- ball games are only allowed at weekends
- dogs should be kept on leads at all times

If you have views on these proposals, please write to Mr A Williams, Park Administrator.

Write a letter to Mr Williams giving your comments on these proposals.

Do not include an address.

You have 40 minutes to complete the task

(Park Letter task prompt)

What is “the perfect teacher”?

The school magazine has asked students to write about **the perfect teacher**. Here are some comments that some students have made:

Teachers should be kind!

It's important that teachers are strict.

The perfect teacher should set lots of homework!

Teachers should listen to their students!

I don't think teachers should be too strict.

**WRITE AN ARTICLE FOR THE SCHOOL MAGAZINE
GIVING YOUR OPINIONS ON WHAT MAKES THE
PERFECT TEACHER.**

You may use the ideas above to help you, or your own ideas.

You have 40 minutes to complete the task

(Perfect Teacher task prompt)

Appendix iv. – A Detailed Developmental Trajectory Based on the Study

Clause participants

Resource of Language	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Clause level: Participants Experiential grammatical metaphor (nominalization) and abstract nouns more generally	A few abstract nouns such as <i>problem</i> and <i>idea</i> were used. Writers lacked productive control of derivational morphology	A few abstract nouns such as <i>problem</i> and <i>idea</i> were used. Writers sometimes used words as nominalizations with the incorrect form (e.g. <i>destroy</i> for <i>destruction</i>).	A slightly wider range of abstract nouns and nominalizations was used with better control of derivational morphology: <i>option, problem, idea, purpose, proposal ability, knowledge, education</i>	A slightly wider range of abstract nouns and nominalizations was used: <i>option, problem, idea, purpose, proposal ability, knowledge, education, restrictions, harm, danger, issues, specifications</i>	The EMT group made more frequent use of a wide range of abstract nouns, including gerunds, than did the EIT group.
Dense nominal groups	<p>Subjects were usually simple, with a relatively high proportion of single word subjects, but were occasionally post modified by a prepositional phrase or relative clause: <i>Things that the robot works well the most...</i></p> <p>Objects were sometimes long and included post-modification by prepositional phrases and relative constructions, but without control of form: <i>Teacher should be kind and try to answer <u>all the question that student ask</u> (EN)</i></p> <p>Errors with plural nouns and determiners occurred frequently</p>	<p>Subjects were usually simple, with a relatively high proportion of single word subjects. Occasionally they were post-modified by relative constructions or prepositional phrases: <i>people who play skateboard</i></p> <p>Objects were sometimes long and included post-modification by prepositional phrases and relative constructions, but without control of form: e.g. <i>the teacher that very care about the student; some of the function that works</i></p> <p>Simple clauses were very occasionally used as participants in identifying clauses, usually in the object/ complement slot: <i>my idea is <u>to ask you to think again</u></i></p> <p>Errors with plural nouns and determiners occurred frequently</p>	<p>Subjects were usually simple but were sometimes post-modified by relative constructions or prepositional phrases: <i>the problem about the robot freezing; the processor to make it work</i></p> <p>Objects were sometimes long and included post-modification by prepositional phrases and relative constructions, which sometimes included errors: e.g. <i>improvements we have to work on; ...a calm, friendly teacher which can easily understand...</i></p> <p>More complex clauses were sometimes used as participants in clauses, usually in the object slot: <i>So my second point to my perfect teacher is <u>that they should give the correct amount of homeworks to their students</u></i>; Gerunds were sometimes used as participants: <i>proposing these restrictions...</i></p> <p>Errors with plural marking and determiners persisted but were less frequent.</p>	<p>Subjects were increasingly post-modified by relative constructions, including participle modifiers, or prepositional phrases: <i>Jobs that the RF1 can currently execute; The worst problem encountered</i></p> <p>Objects were sometimes post-modified by prepositional phrases and relative constructions, including participle modifiers, with good control of form: <i>a joke relating to the topic of the lesson; a special area where everyone can play ball</i></p> <p>More complex clauses, including gerunds, were used as participants in clauses, in the object slot and increasingly in the subject slot: <i>Using a ramp on an unfamiliar surface could cause serious injury...</i></p> <p>Plural noun marking was accurate and determiners were correctly chosen.</p>	EMT writers deployed slightly longer noun groups in the subject slot and somewhat fewer single-word subjects than the EIT group, though there was significant overlap between groups on these measures.
Adjectives in the Carrier-Attribute slot (predicative adjectives)	Adjectives were relatively infrequent in carrier-attribute clauses.	Adjectives were more frequent in carrier-attribute clauses.	Adjectives were used frequently in carrier-attribute clauses.	Adjectives were used frequently in carrier-attribute clauses.	EMT writers used adjectives less frequently than Thai writers on tasks with an element of overt persuasion.

Process types

Resource of Language	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Processes					
<p>Range of process types and clause types</p> <p>Logical Grammatical metaphor</p>	<p>The ratio of material and behavioural processes to relational processes was relatively high.</p> <p>Relational processes were used in carrier-attribute clauses (BE) and possession clauses (HAVE). BE was sometimes omitted.</p> <p>A limited range of mental and verbal processes was used quite frequently to explicitly source attitudes to the writer or others (e.g. <i>I think...</i>).</p>	<p>The ratio of material and behavioural processes to relational processes was relatively high.</p> <p>Relational processes were used in carrier-attribute clauses (BE) and possession clauses (HAVE). BE was sometimes omitted. BE was very occasionally used in identifying clauses.</p> <p>A limited range of mental and verbal processes was used quite frequently to explicitly source attitudes to the writer or others (e.g. <i>I think...</i>).</p>	<p>The ratio of material and behavioural processes to relational processes was lower depending.</p> <p>Relational processes are used in carrier-attribute clauses (BE) and possession clauses (HAVE). BE is increasingly used in identifying clauses (see examples below with clauses as participants).</p> <p>A wider range of mental processes was used to explicitly source attitudes to the writer or others, and to express degrees of likelihood through interpersonal grammatical metaphor (e.g. <i>think, feel, understand, believe</i>)</p>	<p>Writers used relational processes more frequently, relative to material and behavioural processes, and with more varied function. Notably, clauses and abstract nouns were increasingly used as participants in identifying clauses. Verbs of cause (e.g. <i>cause, result in</i>) may be used to express causal relations through logical metaphor.</p> <p>A slightly wider range of mental processes was used to explicitly source attitudes to the writer or others, and to express degrees of likelihood through interpersonal grammatical metaphor (e.g. <i>think, feel, understand, believe</i>)</p>	<p>The EMT group used a wider range of relational processes than the EIT group, with more frequent use of verbs expressing causal relations, such as <i>mean, cause, lead to</i> and <i>result in</i>.</p> <p>EMT writers also tended to use identifying relational clauses linking complex participants, including abstract nouns and nominal clauses, more frequently than the EIT group, though there was significant overlap between groups on these features.</p>

Elaborated verbal groups – secondary tense, passive voice, phase constructions and adverbs

Resource of Language	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Processes					
Elaborated verbal groups	<p>Secondary tenses (including present progressive and present perfect simple) were used but were usually inaccurate in form.</p> <p>Passives were used rarely and usually inaccurately unless as a memorized fragment: ... <i>I am still being worked on improvements...</i>; <i>It can used by different people</i></p> <p>Adverbs of modal assessment such as <i>still</i>, <i>already</i> and <i>yet</i>, and adverbs of manner were occasionally used within verbal groups.</p> <p>Complex verb structures (phase and causative constructions) involved a limited group of verbs including <i>make</i>, <i>want</i>, <i>help</i>, <i>start</i> and <i>stop</i></p> <p>A limited range of modal verbs (<i>must</i> and <i>should</i>) were used to express deontic meanings. <i>Can</i> (for potentiality/ability) and <i>will</i> are used frequently.</p> <p>Present tense agreement errors are frequent.</p>	<p>Secondary tenses (including present perfect simple and present progressive, past continuous, <i>going to</i>) were used, though often with errors: <i>From this I've check the robot again; this program <u>had</u> been set for look after the kids</i> (error: had = has)(TW)</p> <p>Passives were occasionally used in appropriate linguistic contexts, though often with errors in form: <i>the robot are now have been programmed to take and follow the order by voice</i> (TW);</p> <p>Adverbs of modal assessment such as <i>still</i>, <i>already</i> and <i>yet</i>, and adverbs of manner were occasionally used within verbal groups.</p> <p>Complex verb structures (phase and causative constructions) involved a limited group of verbs including <i>make</i>, <i>want</i>, <i>help</i>, <i>start</i> and <i>stop</i>, <i>allow</i></p> <p>A limited range of modal verbs including <i>must</i> and <i>should</i> were used to express deontic meanings. <i>Can</i> and <i>will</i> are used frequently. Writers began to express epistemic meanings through a limited range of modal verbs: <i>might</i> and <i>could</i>.</p> <p>Present tense agreement errors are frequent.</p>	<p>Secondary tenses were used. Errors with tense form still occurred: <i>There are some problem that <u>we had inform you</u></i>; (VN)</p> <p>Passives were used in appropriate linguistic contexts, with some errors: <i>This robot are made to be use by every age; there was a wire which have been bitten by something</i> (VN)</p> <p>Adverbs of modal assessment such as <i>still</i>, <i>already</i> and <i>yet</i>, and adverbs of manner occurred within verbal groups. A more varied range of adverbs were also occasionally used (e.g. <i>totally</i>, <i>even</i>)</p> <p>Complex verb constructions (phase and causative constructions) usually involved a limited group of verbs including <i>make</i>, <i>want</i>, <i>help</i>, <i>start</i> and <i>stop</i>, <i>allow</i>, <i>try</i>. Other verbs begin to appear: <i>prevent</i>, <i>claim</i></p> <p>A limited range of modal verbs including <i>must</i> and <i>should</i> were used to express deontic meanings. <i>Can</i> and <i>will</i> were used frequently. Writers expressed epistemic meanings through a limited range of modal verbs including <i>might</i> and <i>could</i>. The counterfactual <i>would</i> was used frequently.</p> <p>Present tense agreement errors still occur.</p>	<p>A range of secondary tenses (including present perfect continuous) were used accurately, sometimes in combination with other constructions: <i>...what they've been taught in class...; ...would be falling asleep... (KN)</i></p> <p>Passives were used accurately in appropriate linguistic contexts: <i>...many mock-ups were destroyed due to the fact that they fell over; ...it is limited to household skills... (PN)</i></p> <p>Adverbs of modal assessment such as <i>still</i>, <i>already</i> and <i>yet</i>, and adverbs of manner occurred within verbal groups. More varied adverbs begin to appear (e.g. <i>totally</i>, <i>even</i>)</p> <p>Complex verb constructions (phase and causative constructions) mostly involved a limited group of verbs including <i>make</i>, <i>want</i>, <i>start</i> and <i>stop</i>. Other verbs were also used: <i>prevent</i>, <i>claim</i>, <i>cause</i>, <i>manage</i>, causative <i>have</i></p> <p>A limited range of modal verbs including <i>must</i> and <i>should</i> were used to express deontic meanings. <i>Can</i> and <i>will</i> were used frequently. Writers expressed epistemic meanings through a limited range of modal verbs including <i>might</i> and <i>could</i>. The counterfactual <i>would</i> was used frequently.</p> <p>Present tense agreement errors may still occur.</p>	<p>The EMT group used passives somewhat more frequently than the EIT group, though there was significant overlap between the groups on this measure. The EMT group was more accurate in their use of passives and secondary tenses than EIT writers, some of whom made errors in the form of passives and secondary tenses.</p> <p>There was little difference in the overall frequency of causative and phase structures used by the two groups. However, some EMT writers used a noticeably wider range of complex verb constructions than EIT writers.</p> <p>EIT writers used all modal verbs more frequently than EMT writers, and deontic modal verbs more frequently on tasks with an element of overt persuasion, particularly the Perfect Teacher task.</p> <p>The EIT group used epistemic modal verbs somewhat more frequently than the EMT group on the Perfect Teacher and Park Letter tasks, though there was significant overlap between groups. On the Robot Progress task, this trend was reversed, with the EMT group using epistemic modal verbs more frequently. On this task, EMT writers used epistemic modals to hedge the strength of claims about the robot rather than to express degrees of future likelihood. The EIT group did not use modal verbs for this function, which may account for this difference.</p> <p>The EIT group of Thai writers used the counterfactual <i>would</i> more frequently than the EMT group.</p>

Expansion and projection

Above the clause:	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Expansion and projection	<p>Cause, means, condition, purpose and time clauses were used frequently with common binding conjunctions: <i>because, by, if, to, when</i>.</p> <p>Non-finite clauses with <i>prepositions</i> were formed incorrectly: <i>Perfect teacher should understand what student are thinking by they just speak a few word</i></p> <p>Hypotactic projection clauses were frequent, but with a limited group of common mental and verbal processes: <i>think, say</i></p>	<p>Cause, means, condition, purpose and time clauses were used frequently with common binding conjunctions: <i>because, by, if, to, when</i>.</p> <p>Non-finite clauses with <i>prepositions</i> were formed incorrectly: <i>...I have try another way by make the two surfaces of the joints more smoother...</i></p> <p>Non-restrictive relative clauses with <i>which</i>, were used to elaborate, without full control of form: <i>Secondly, when the robot move it made an annoying noise which quite disturb people.</i></p> <p>Hypotactic projection clauses were frequent, with a limited group of common mental and verbal processes: <i>think, tell, want</i></p>	<p>Cause, means, condition, purpose and time clauses were used frequently with common binding conjunctions: <i>because, by, if, to, when</i>.</p> <p>Non-finite clauses with <i>prepositions</i> were formed correctly: <i>we have overcome by changing the material of the robot</i></p> <p>Non-restrictive relative clauses with <i>which</i>, were used to elaborate, without full control of form: <i>This make the robot mute, which they will only make sound when they talk with human</i></p> <p>Hypotactic projection clauses were frequent, with a slightly wider range of common mental and verbal processes: <i>I believe that most student would choose teacher who gives them less homework (EI_EN)</i></p> <p>Learners began to use cognitive processes to express likelihood or degrees of confidence in their assertions (hedging and boosting): <i>If this can happen I bet all students would be totally enjoy their lesson.</i></p>	<p>A wider range of cause, means, condition, purpose time and concession clauses were used with common binding conjunctions: <i>because, by, if, to, when, although, even though</i></p> <p>Subordinate clauses for functions such as addition and contrast were used: <i>which stops water from reaching the sensitive computer sections as well as making the RH-1 more resistant to impacts.</i></p> <p>Subordinate clauses were often foregrounded to build cohesion: <i>To reduce the noise level produced, we have coated the internal mechanism with high quality rubber.</i></p> <p>Conjunctive relations were sometimes expressed through prepositional phrases: <i>...many mock-ups were destroyed due to the fact that they fell over...</i></p> <p>Hypotactic projection clauses were frequent, with a slightly wider range of common mental and verbal processes to explicitly source attitudes: <i>Pupils would believe that a good teacher sets a moderate amount of homework (PN); I also disagree that dogs should be kept on leads at all time (KN)</i></p> <p>Learners sometimes used cognitive processes to express likelihood or degrees of confidence in their assertions (hedging and boosting).</p>	<p>Texts written by Thai Immersion and EMT writers show similar levels of complexity measured as clauses per unit, though there is some variation in the source of complexity. Thai writers make relatively more frequent use of expansion and projection, whereas the EMT group uses a relatively higher proportion of nominal clauses and clauses embedded in noun groups.</p> <p>EMT writers used a wider range of conjunctions than Thai writers, including more varied causal conjunctions, more frequent use of concession and a greater variety of other hypotactic conjunctions.</p> <p>More EMT writers produced a genre-appropriate, formal reporting style than did Thai Immersion writers, though there was significant variation within the EMT group on this. This more formal style was marked by less frequent expansion and projection, fewer single-word subjects, particularly personal pronouns, and more frequent passive verbs and identifying clauses with complex participants.</p>

The thematic adjunct slot

Above the sentence:	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Thematic adjunct slot	<p>A small range of conjunctions were used to express additive, adversative, temporal sequence, exemplifying, concluding and consequence relations: <i>furthermore, on the other hand, firstly, for example, in conclusion, as a result.</i></p> <p>Occasionally, an interpersonal adverbial was used: <i>in my opinion</i></p> <p>Circumstances were rarely placed in this clause slot.</p>	<p>A slightly wider range of conjunctions were used to express additive, adversative, temporal sequence, exemplifying, concluding and consequence relations: <i>in addition, furthermore, on the other hand, however, firstly, for example, for instance, in conclusion, as a result.</i></p> <p>Conjunction was occasionally marked through identifying clauses and abstract nouns, such as <i>reason</i>: <i>This is the reason why they want to have perfect teacher like this.</i></p> <p>Occasionally, an interpersonal adverb was used: <i>in my opinion, sometimes</i></p> <p>Circumstances were occasionally placed in this clause slot: <i>in the future we could improve</i></p>	<p>A slightly wider range of conjunctions were used to express additive, adversative, temporal sequence, exemplifying, concluding and consequence relations: <i>in addition, furthermore, on the other hand, however, firstly, for example, for instance, in conclusion, as a result.</i></p> <p>Conjunction was sometimes marked through identifying clauses and abstract nouns, such as <i>reason, point and cause</i>: <i>The reason of this is because...; So my second point to my perfect teacher is...</i></p> <p>Interpersonal adverbs were used with greater flexibility: <i>Most importantly, teachers must be calm...</i></p> <p>Circumstances were sometimes placed in this clause slot fulfilling a wider range of functions: <i>During the first test of the robot we found some problems; For the second problem we decided to add an extra processing screen</i></p>	<p>Conjunctive relations were increasingly expressed more flexibly through conjunction and also through logical metaphor via nominal groups, circumstances and verbs: <i>From a parent or guardian's point of view, a perfect teacher would be one who has the ability to keep their students in check. This results in a strict and stern teacher. Furthermore, since parents wish their children to have the best possible results... (EI_PWN); too much would cause depression</i></p> <p>Interpersonal adverbs were used with greater flexibility: <i>Unfortunately, the RH-1 isn't perfect; sometimes they all might be successful;</i></p> <p>Circumstances were placed in this clause slot fulfilling a wider range of functions: <i>From a parent or guardian's point of view...; Depending on student characteristics, the perfect teacher is different to everyone</i></p>	<p>Thai writers used cohesive conjunctions more frequently than the EMT group.</p> <p>EMT writers used a somewhat more varied range of resources to express logical connections within clauses, including more frequent use of verbs such as <i>cause, lead to, mean and result in.</i></p>

Rhetorical Knowledge

	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Rhetorical Knowledge	<p>Writers deployed relatively shallow rhetorical structures at the level of the whole text compared to other writers.</p> <p>Limited ability to effectively combine rhetorical structures.</p>	<p>Writers developed quite deep rhetorical structures, which were often organized around a stereotypical generic structure that they had learned (e.g. discussion).</p> <p>Writers began to combine rhetorical structures, but the effectiveness of these combinations was often limited by range and control of lexicogrammar within groups and clauses.</p>	<p>Writers did not adhere so closely to a pre-learned schema.</p> <p>Combinations of rhetorical structures were more effective due partly to increasing control of lexicogrammar.</p>	<p>Writers did not adhere so closely to a pre-learned schema.</p> <p>Rhetorical structures were combined effectively.</p>	<p>EMT Writers varied significantly in their ability to effectively combine rhetorical structures. Although many of the texts analysed were rhetorically deep, with effective use of rhetorical structures to achieve particular goals, some were rhetorically “shallow” with far less effective use of rhetorical structures.</p>

Accuracy

	Less Proficient LIT	More Proficient LIT	Less Proficient EIT	More Proficient EIT	EMT
Accuracy	<p>Errors in 80% of t units (i.e. frequent and noticeable)</p>	<p>Errors in 70 to 80% of t units(frequent and noticeable)</p>	<p>Errors in 30 to 70% of t units (still noticeable, but becoming less frequent)</p>	<p>Errors in 3 to 30% of t units (occasional errors; May be completely absent)</p>	<p>Errors qualitatively different and less frequent, but include some subject-verb agreement errors.</p>

Appendix v.

National Curriculum attainment targets for English, levels 3 to 5 (From QCA, 2010)

Level 3

Pupils' writing is often organised, imaginative and clear. The main features of different forms of writing are used appropriately, beginning to be adapted to different readers. Sequences of sentences extend ideas logically and words are chosen for variety and interest. The basic grammatical structure of sentences is usually correct. Spelling is usually accurate, including that of common, polysyllabic words. Punctuation to mark sentences - full stops, capital letters and question marks - is used accurately. Handwriting is joined and legible.

Level 4

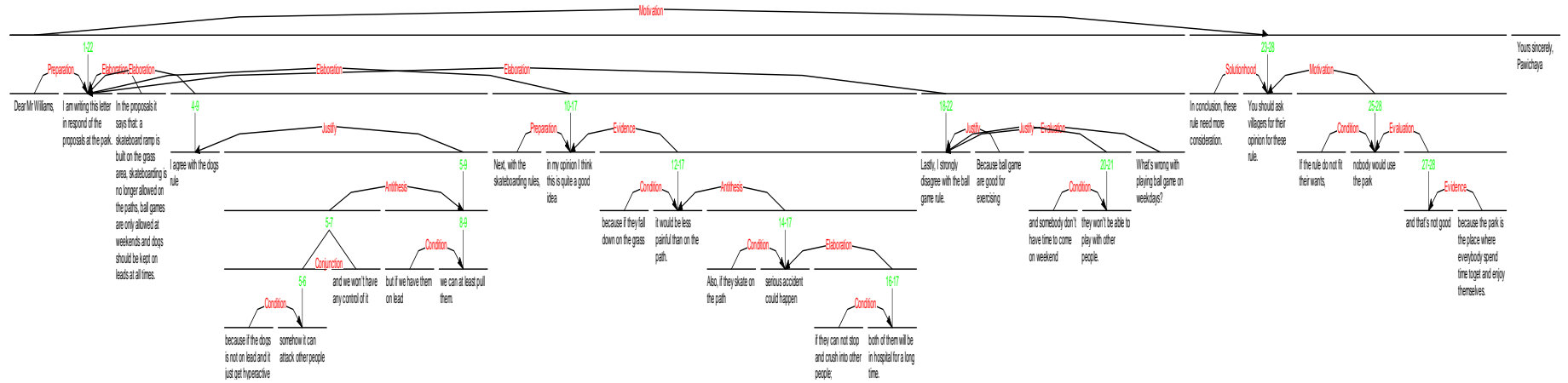
Pupils' writing in a range of forms is lively and thoughtful. Ideas are often sustained and developed in interesting ways, with organisation generally appropriate for purpose. Vocabulary choices are often adventurous and words are used for effect. Pupils are beginning to use grammatically complex sentences, extending meaning. Spelling, including that of polysyllabic words that conform to regular patterns, is generally accurate. Full stops, capital letters and question marks are used correctly, and pupils are beginning to use punctuation within sentences. Hand writing style is fluent, joined and legible.

Level 5

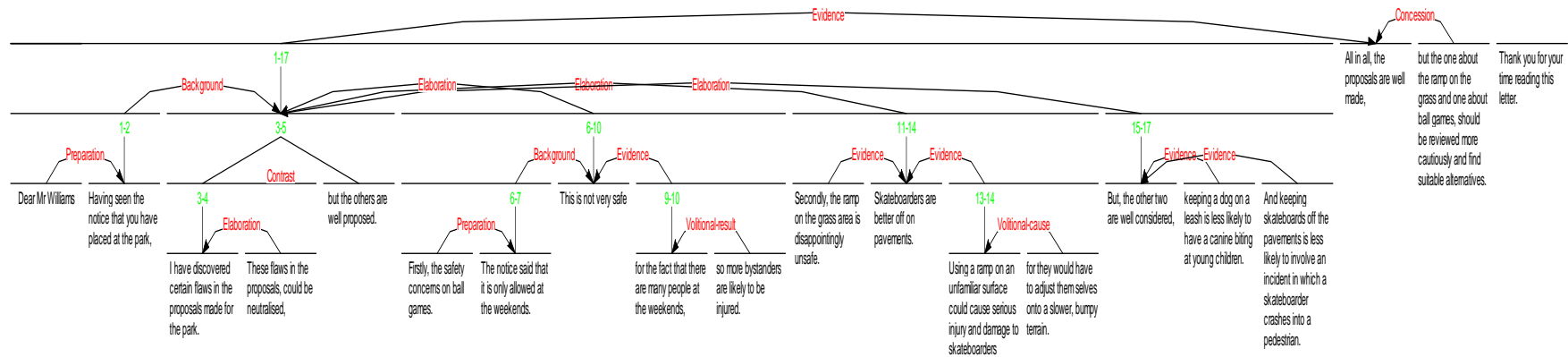
Pupils' writing is varied and interesting, conveying meaning clearly in a range of forms for different readers, using a more formal style where appropriate. Vocabulary choices are imaginative and words are used precisely. Sentences, including complex ones, and paragraphs are coherent, clear and well developed. Words with complex regular patterns are usually spelt correctly. A range of punctuation, including commas, apostrophes and inverted commas, is usually used accurately. Handwriting is joined, clear and fluent and, where appropriate, is adapted to a range of tasks.

Appendix vi. – Further examples of whole-text RST tree diagrams

Text 1: EI_EN Park Letter RST Tree – Example of Structure 2 (*motivation*)

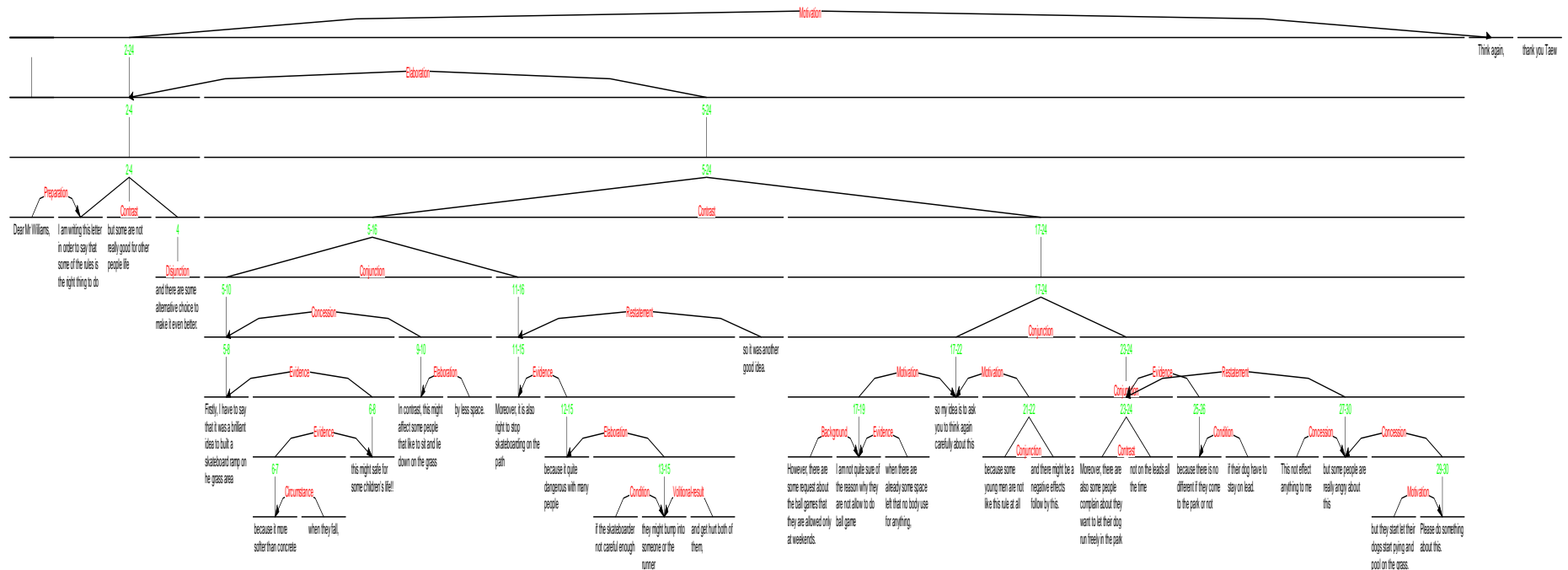


Text 2: EI_PN Park Letter RST Tree – Example of Structure 3 (*evidence*)



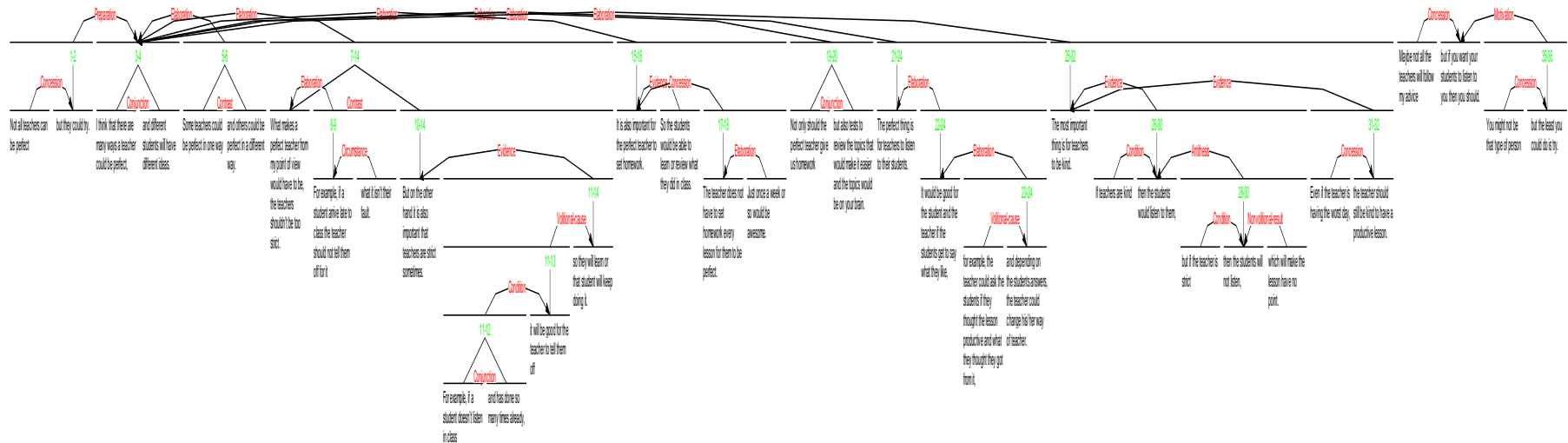
NOTE: Structures 1 and 2 above are similar. The major difference is the nature of the conclusion, which is interpreted as the nucleus of the whole text in each case. In Structure 2, the nucleus is a proposition stating the writer's attitude to the proposals concerning the park. The preceding material is interpreted as *evidence* to the truth value of the conclusion. In Structure 1, the conclusion offers a recommendation and the preceding material is interpreted as *motivation* to follow that recommendation.

Text 3: LI_TW Park Letter RST Tree – Example of a structure tree including internal *contrast* (Structure 4) with Structure 2



Note: This RST Diagram illustrates some of the characteristics of the rhetorical structures of the Late Immersion group on this task and also in general. The whole text structure is deep (a rhetorical depth of 8 levels, subtracting one level from the diagram above that was added for convenience and clarity rather than necessity), and includes internal organization around a *contrast* relation, where the writer has organized proposals into those she likes and those she dislikes. The relatively frequent use of multinuclear relations (*contrast* and *conjunction*) is one factor that has led to a relatively deep structure. However, the writer does not always combine structures effectively.

Text 4: NE_2 Perfect Teacher RST Tree – Example of Structure 1 on the Perfect Teacher (*elaboration*)



Note: This text begins by stating that “there are many ways a teacher could be perfect”. The subsequent text segments are related to this opening by the *elaboration* relation as they provide details of these “many ways”. It is not clear how the concluding sentences in the text relate to the text structure as a whole, and so they were not included in the whole-text analysis.

Figure 10. A sample of the 100 most interesting conversations in the corpus. The figure shows the first 10 conversations, with the remaining 90 conversations being similar in structure. Each conversation is represented by a horizontal line, with the text of the conversation written below it. The conversations are organized into three main sections: 'Background', 'Discussion', and 'Conclusion'. The 'Background' section contains information about the problem being discussed, the 'Discussion' section contains the main points of the conversation, and the 'Conclusion' section contains the final thoughts and recommendations. The conversations are numbered 1 through 100, and the most interesting ones are highlighted in red. The figure also includes a legend for the different types of nodes used in the conversations: 'Background' (blue), 'Discussion' (green), and 'Conclusion' (red). The figure is a complex network of nodes and edges, representing the relationships between the different parts of the conversations. The nodes are labeled with numbers, and the edges are labeled with text. The figure is a good example of how a large corpus of text can be analyzed and visualized to extract meaningful information.

Text for NE_1 Robot Progress

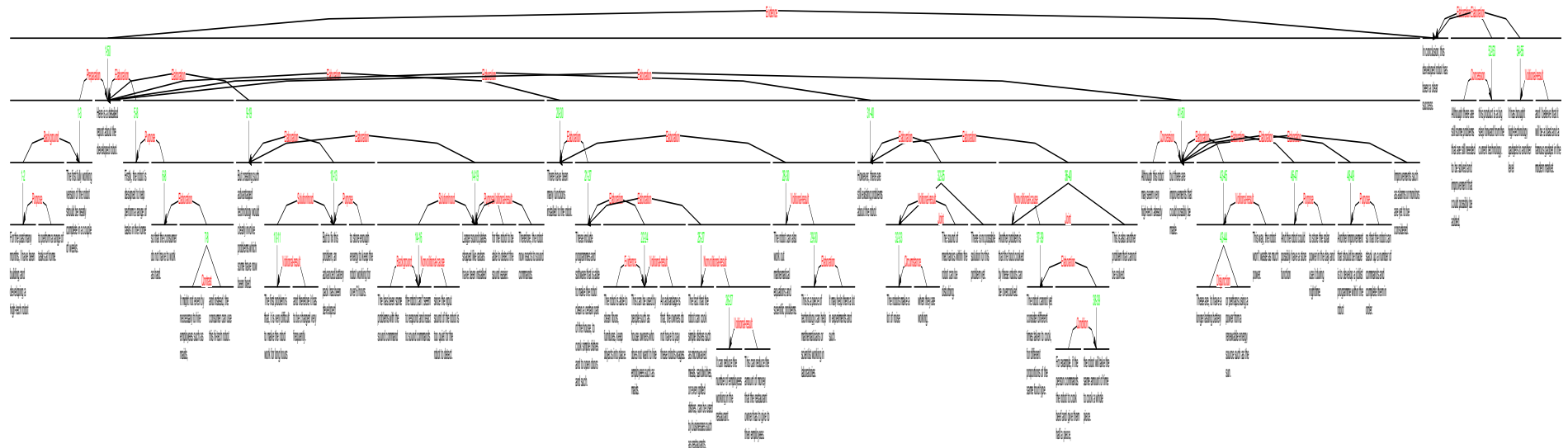
1. My team and I would like to modestly inform you that we have nearly reached completion of the task at hand (the robot).
2. There are, however, a few adjustments that will need to be made
3. to put the robot on the market.
4. The first problem we came across was affiliated with the built-in defibrillator.

5. To save a person's life in the home would be one of the greatest technological advancements in the world.
6. If our robot could detect that someone is having a heart attack or stroke,
7. and save the person's life, we would have 3 fold customers prior to what we expected before this invention.
8. We already have installed the defibrillator,
9. and the detector works,
10. but when we tasked the robot, he wouldn't shock the dummy we used.
11. The robot would shock the chairs and walls of the simulated bedroom a prodigious amount of times,
12. but failed to shock the dummy.
13. To address this problem,
14. we request an extra \$450 to add on to the thought processor,
15. so the robot will know what to shock. Sorry for the inconvenience.
16. Another problem we faced was the internals.
17. The gears and wires simply can't handle the stress, heat and pressure.
18. Basic tasks such as tying up the owner's shoes could not be accomplished.
19. We suggest titanium alloy gears, but with hinges,
20. so that the robot can bend it's gears when not requires for use.
21. Also for the wires we would like to add extra layers of heat conductors for heat absorbtion.
22. These two upgrades will cost around 300 extra dollars in retail price per unit to make a profit.
23. When we asked for volunteers to test the robot,
24. we picked a family that had an infant.
25. The significance of this is that even there were problems that only affected the infants.
26. When the family set the robot for house protection mode at night,
27. the infant would not stop crying.
28. We later figured out that the sonar system had too high a pitch of sound to be heard by adults,
29. but everyone under the age of 18 can hear.
30. When we fixed the problem with the robot being too loud,
31. we had turned up all the pitches.
32. Little did we know that the turning up the pitches created problems unknown to us.
33. We tried turning up the pitch even more,
34. but then the familie's dog would not stop barking.
35. Since we are running low with our budget,
36. we will fix this problem by taking out the system altogether.
37. This will save us around \$100 per unit.
38. Our last, and probably most unfortunate problem is with television companies.
39. The outer design for the robot looks too much like a robot from a popular TV series called "Mystery Science Theatre 3000."

40. The producers are threatening to sue us
41. if we don't change the design.
42. Though this seems like a big problem,
43. I am positive we will be able to change the design and outer later by this November,
44. but this will, but this will delay, once again, our release for the robot.
45. My finalized prediction for when the robot will be released to the public is June 18th.
46. The new list of features will be: cooking, cleaning, babysitting, house protection (minus sonar), built in defibrillator, walking the dog, a built in telephone, built in television, built in computer, built in coffee machine, and qualities of a human.
47. Each unit we sell will cost \$100000.
48. Apologies for any inconvenience,

MROT....

Text 6: NE_3 Robot Progress RST Tree – Example of Structure 2 (*evidence*) on the Robot Progress Task



Note: The body segments of the text above are related to the introduction by the *elaboration* relation. The conclusion provides a positive assessment of the project's outcome and the relationship between this concluding element and the rest of the text is interpreted as *evidence*, since the text supports the truth of the positive assessment in the conclusion.

Text for NE_3 Robot Progress

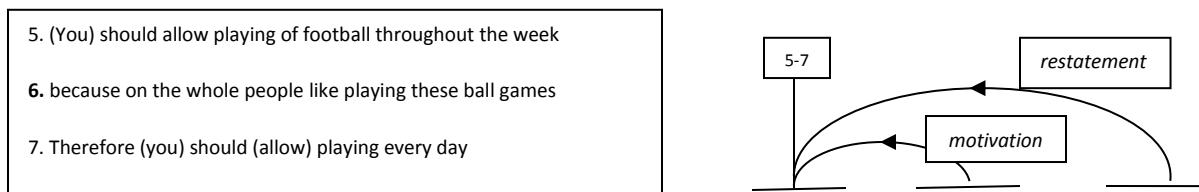
1. For the past many months, I have been building and developing a high-tech robot
2. to perform a range of tasks at home.
3. The first fully working version of the robot should be nearly complete in a couple of weeks.
4. Here is a detailed report about the developed robot.
5. Firstly, the robot is designed to help perform a range of tasks in the home
6. so that the consumer do not have to work as hard.
7. It might not even be necessary to hire employees such as maids,
8. and instead, the consumer can use this hi-tech robot.
9. But creating such advantaged technology would clearly involve problems which some have now been fixed.
10. The first problem is that, it is very difficult to make the robot work for long hours
11. and therefore it has to be charged very frequently.
12. But to fix this problem, an advanced battery pack has been developed
13. to store enough energy to keep the robot working for over 6 hours.
14. There has been some problems with the sound command
15. the robot can't seem to respond and react to sound commands
16. since the input sound of the robot is too quiet for the robot to detect.
17. Larger sound plates shaped like radars have been installed
18. for the robot to be able to detect the sound easier.
19. Therefore, the robot now reacts to sound commands.
20. There have been many functions installed to the robot.
21. These include programmes and software that is able to make the robot clean a certain part of the house, to cook simple dishes and to open doors and such.
22. The robot is able to clean floors, furnitures, keep objects into place.
23. This can be used by people such as house owners who does not want to hire employees such as maids.
24. An advantage is that, the owners do not have to pay these robots wages.
25. The fact that the robot can cook simple dishes such as microwaved meals, sandwiches, or even grilled dishes, can be used by businesses such as restaurants.
26. It can reduce the number of employees working in the restaurant.
27. This can reduce the amount of money that the restaurant owner has to give to their employees.
28. The robot can also work out mathematical equations and scientific problems.
29. This is a piece of technology can help mathematicians or scientist working in laboratories.
30. It may help them a lot in experiments and such.
31. However, there are still existing problems about the robot.
32. The robots make a lot of noise
33. when they are working.

34. The sound of mechanics within the robot can be disturbing.
35. There is no possible solution for this problem yet.
36. Another problem is that the food cooked by these robots can be overcooked.
37. The robot cannot yet consider different times taken to cook, for different proportions of the same food type.
38. For example, if the person commands the robot to cook beef and give them half a piece,
39. the robot will take the same amount of time to cook a whole piece.
40. This is also another problem that cannot be solved.
41. Although this robot may seem very high-tech already
42. but there are improvements that could possibly be made.
43. These are, to have a longer lasting battery
44. or perhaps using a power from a renewable energy source such as the sun.
45. This way, the robot won't waste as much power.
46. And the robot could possibly have a store function
47. to store the solar power in the day and use it during nighttime.
48. Another improvement that should be made is to develop a joblist programme within the robot
49. so that the robot can stack up a number of commands and complete them in order.
50. Improvements such as alarms or monitors are yet to be considered.
51. In conclusion, this developed robot has been a clear success.
52. Although there are still some problems that are still needed to be solved and improvement that could possibly be added,
53. this product is a big step forward from the current technology.
54. It has brought high-technology gadgets to another level
55. and I believe that it will be a blast and a famous gadget in the modern market.

Appendix vii.

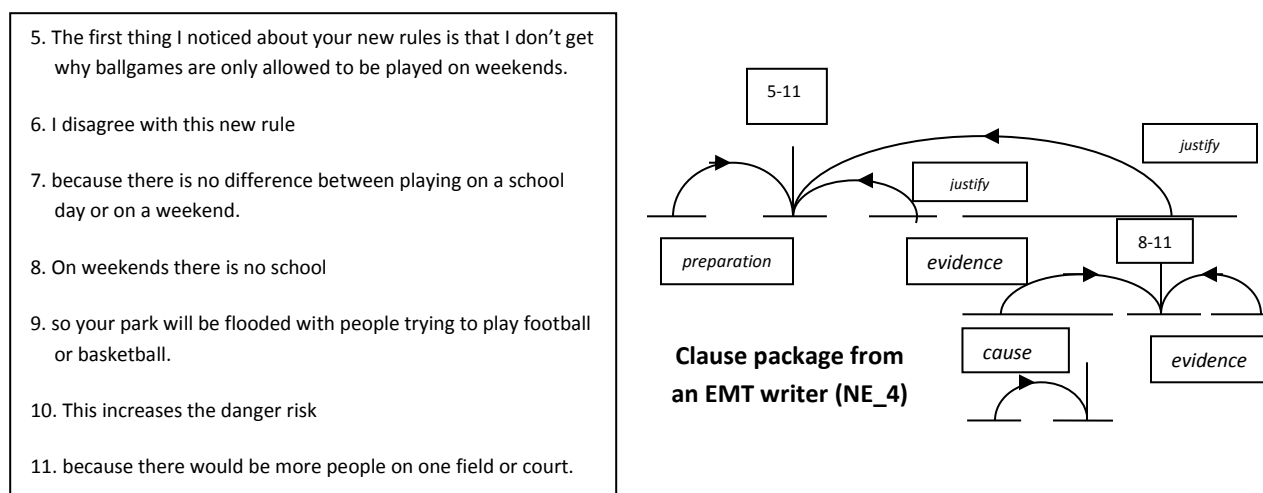
The investigation of material used in persuasion

The nature of material used in persuasion by the four groups was investigated by looking at how they wrote about one proposal on the Part Letter task. All participants that chose to write about it agreed that limiting ball games to the weekends was a bad idea. The material they used to support this assertion was classified and counted for each participant as illustrated below.



Clause package from a TWT writer (NT_3)

In this clause package, clause 5 states a position regarding the rule. The supporting material in the satellite (clause 6) relates to the fact that people like playing ball games. In the table below for the TWT group, there is therefore one count for popularity/liking under NT_3.



This clause package, by an EMT writer, includes references to both overcrowding (clause 9) and danger (clause 20), and so both safety problems and overcrowding have a count of 1 in the column for participant NE_4.

Raw data showing material participants used to support the proposition that banning ball games during the week would be a bad idea for each group.

EMG	NE_1	NE_2	NE_3	NE_4	NE_5
Safety problems	1	1		1	1
Overcrowding				1	1
Physical health					1
Reduced Social Activity					
Mental health/stress/relaxation					1
Popularity/liking					

EIT	EI_EN	EI_KN	EI_PN	EI_PR	EI_VN
Safety problems			1		
Overcrowding					
Physical health	1				
Reduced Social Activity	1				1
Mental health/stress/relaxation		1		1	
Popularity/liking					

LIT	LI_EN	LI_PK	LI_TW	LI_PG	LI_YK
Safety problems					
Overcrowding	1				
Physical health					
Reduced Social Activity					
Mental health/stress/relaxation		1			
Popularity/liking			1		

TWT	NT_1	NT_2	NT_3	NT_4	NT_5
Safety problems					
Overcrowding		1			
Physical health	1	1			
Reduced Social Activity					
Mental health/stress/relaxation					
Popularity/liking			1	1	1

Total counts were divided by number of participants in the group that addressed the topic. All participants in the EIT and TWT groups wrote about the ball game rule. 4 out of 5 participants wrote about this rule change in the EMG group and 3 out of 5 in the EIT group, as shown in the tables above.

Appendix viii.

The Investigation of indirectness vs directness in opening paragraphs of the Park Letter task.

Indirectness was investigated by examining opening clause packages in the Park Letter task. The stance of the writer towards the proposed rule changes in the park were classified as positive, negative, balanced or neutral. The paragraphs below exemplify this classification.

Neutral Opening

I am writing this letter in respond of the proposals at the park. In the proposals it says that: a skateboard ramp is built on the grass area, skateboarding is no longer allowed on the paths, ball games are only allowed at weekends and dogs should be kept on leads at all times. (EI_EN Park Letter)

This paragraph does not position the writer regarding the proposed changes and is therefore classified as neutral.

Positive Only Opening

I am a representation of people who usually come to this park. I already read your proposals and I think that some of your notice are good and it can help the park to have a better look and cleaner. (LI_PG Park Letter)

This opening clause package is positive.

Negative Only Opening

I am writing regarding your newest proposals about concerns of safety in the park in progress. I believe personally some of your proposals may pose a few general issues. I speak on behalf of a 14-year-old teenagers (young adult) point of view, which I hope will be taken into consideration. (NE_2 Perfect Teacher)

This opening paragraph places the writer in opposition to the proposed rule changes without stating that some of the changes are positive. It is therefore classified as negative.

Balanced Opening

I am writing this letter in order to say that some of the rules is the right thing to do but some are not really good for other people life and there are some alternative choice to make it even better. (LI_TW Park Letter)

This opening states both positive and negative views of the proposed changes and is therefore classified as balanced.

Appendix ix. – Examples of Grammatical Analysis

The following provides an example of a text from each group in the study writing in English. The original text, typed up in Microsoft Word is presented along with clause participants divided into columns in the manner used for the quantitative analysis of grammar in the study. Each text is also accompanied by tables detailing counts of features and statistical data for the text to further exemplify how grammatical categories were counted in the study.

Text example 1 – Early Immersion Thai Group EI_KN The Perfect Teacher

These days, teachers claim to be having many problems dealing with students and different students have different opinions on how teachers should be.

First of all, some students says that teachers should be kind and shouldn't be too strick. This is because many pupils don't have the ability to concentrate when teachers are strict. They can't remember what they've been taught in class and therefore, their test results would be low. Also, teachers should listen to their students before deciding what to do because teachers' decision isn't always right. However, if their students help them and give them some ideas, sometimes they all might be successful at doing something.

On the other hand, it is important that teachers are strick because if students play around and don't listen to teachers, teachers should be strick, otherwise, they would have the habit of not being afraid with teachers with teachers. This would allow them to do anything they want and won't be able to remember what teachers have been teaching. Some students say that perfect teacher should set lots of homework and the reason is that to help the students remember the education more easily. If there are no homework, students will easily forget what they have learned and all they do is waste their time.

In my opinion, I think that teachers should not be strick because this will allow students to have confidence on telling answers out loud but at the same time, teachers should set the right amount of homework to help pupils memorise the knowledge easier. It is important that teachers shouldn't set too much because pupils won't get enough sleep and would be falling asleep during class time.

Analysis of Perfect Teacher Response by an Early Immersion writer (EI_KN) (P.1 of 3)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		These days,	teachers	claim to be having	many problems dealing with students	
	And		different students	Have	different opinions on how teachers should be.	
		First of all	some students	Says		
that			teachers	should be		kind
	and			shouldn't be		too strick.
			They	can't remember		
what			they	've been taught		in class
	and	therefore,	their test results	would be		Low
		Also,	teachers	should listen		to their students
before				deciding	what to do	
because.			teachers' decision	isn't always		Right
		However,				
if			their students	help	them	
	and			Give	them some ideas,	
		sometimes	they all	might be		successful at doing something

Analysis of Perfect Teacher Response by an Early Immersion writer (EI_KN) (P.2 of 3)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		On the other hand,	it	is		important
that			teachers	are		strick
because if			students	play around and don't listen		to teachers,
			teachers	should be		strick,
		otherwise,	they	would have	the habit of not being afraid with teachers.	
			This	would allow	them	
				to do	anything they want	
	and			won't be able to remember		
what			teachers	have been teaching.		
			Some students	say		
that			perfect teacher	should set	lots of homework	
	And		the reason	is	that to help the students remember the education more easily.	
If			there	are	no homework,	
			students	will easily forget		
what			they	have learned		
	and		all they do	is	waste their time.	

Analysis of Perfect Teacher Response by an Early Immersion writer (EI_KN), continued (P.3 of 3).

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		In my opinion,	I	think		
that			teachers	should not be		Strick
because			this	will allow		
			students	to have	confidence on telling answers out loud	
	but	at the same time,	teachers	should set	the right amount of homework	
to				help		
			pupils	memorise	the knowledge easier	
			It	is		important
that			teachers	shouldn't set	too much	
because			pupils	won't get	enough sleep	
	and			would be falling		asleep during class time.

Counts of Features and Statistical Analysis for Text EI_KN Perfect Teacher

The Verbal Group Column

Total verb groups in the count: 40 Total finite groups: 36 Total non-finite groups: 4

Relational and Existential Clauses: Total BE: 15 Total HAVE: 5 Total Other: 0 Overall Total: 20 Frequency of relational clauses per verb group: 0.50 (20/40)

Material and Behavioural Processes: Total: 14 Frequency per verb group: 0.35

Mental Processes: Total perception verbs: 2 Total affection verbs: 0 Total instances of *think*: 1 Total of other cognitive verbs: 4 Total verbs of volition: 1 Overall Total: 8 Frequency of mental clauses per verb group: 0.20

Verbal Processes: Total verbal processes: 3 (*say, claim*) Frequency per verb group: 0.09

Causative and Phase Constructions (*help, allow*): Total: 4 Frequency per verb group: 0.10

Modal Verbs: deontic function (*should*): 7 epistemic function: (*might*): 1 *will*: 5 *can/able to*: 2 *would*: 4 Total modal verbs per finite verb group: 0.60

Passive Constructions: Total: 1 Frequency per verbal group: 0.03

Secondary Tenses: present progressive: 2 present perfect simple: 2 present perfect continuous: 1 Total: 5 Frequency per finite verb group: 0.14

Noun Groups (subject slot): Total groups: 32 Total words: 44 Words per subject: 1.38 Single-word subjects: Total: 22 Frequency per group: 0.69

Total abstract nouns and nominalisations including gerunds (all noun groups, types not tokens): 8 (*problem, opinion, reason, result, confidence, habit, decision, education*) Frequency per noun group: 0.17

Analysis of clause complexes, hypotactic conjunctions and complexity: Total T Units: 18 Total consequence conjunctions: 8 (*because*: 4, *if*: 3, *To* (purpose): 1) Frequency of consequence conjunctions per T Unit: 0.44; Total projection markers: 8 Frequency per T Unit: 0.36

Thematic Adjunct Slot: Total cohesive conjunctions: 6 (*First of all, however, on the other hand, otherwise, also, therefore*) Frequency per T Unit: 0.33; Prepositional phrases and other circumstantial elements: 2 (*These days, at the same time*) Frequency per T Unit: 0.11; Interpersonal adjuncts (including usuality): 2 (*sometimes, in my opinion*): Frequency per T Unit: 0.11

Text example 2 – Late Immersion Thai Group LI_PG Perfect Teacher

What kind of teacher is a perfect teacher for you? I believe that this question have been asked you for many times. Each people have different answer because they have different ideas or different imagine. So, we will find out what makes the perfect teacher.

If you imagine about teacher, most of students will think that teachers are always cruel and give lots of homework or sometime make the students do a really hard work. Some people thinks that it's a good idea because it can practice their writing and their language which help them to have better grade when they must do same as this in the exam. Moreover, they thought that if we work hard, we can have more patient to do everything and it will successful. Some of the student want teacher that have certain decision. This is because the teacher can help them to decide and solve the problem in the right way and quickly than the kind teacher. Overall, for some student, the teacher that strict have strong decision and set lots of homework and hard work are all perfect teacher for them.

On the other hand some student think that the perfect teacher must be kind, give them a few homework and should listen to the students. First reason for this is because it make them feel relaxing and enjoyable. The student won't be serious if they have homework, they can join to the club or stay at school longer. They don't need to worry about homework. Furthermore it would be better if the teacher listen to the student or be friendly. For example, if the students have problems, they will ask the teacher suddenly because they believed that the teacher always listen and will have them solve the problem for sure. This is another side of the perfect teacher.

Overall, it depend on yourself that what kind of teacher are perfect for you. I think that all of the teacher have their own reason to do anything and it always good for the students.

Analysis of Perfect Teacher Response by an Late Immersion writer (LI_ PG) (P.1 of 3)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
			What kind of teacher	is	a perfect teacher	for you?
			I	believe		
that			this question	have been asked	you	for many times.
			Each people	have	different answer	
because			they	have	different ideas or different imagine.	
		So,	we	will find out	what makes the perfect teacher.	
If			you	imagine		about teacher,
			most of students	will think		
that			teachers	are always		cruel
	and			give	lots of homework	
	or	Sometime		make.		
			the students	do	a really hard work	
			Some people	thinks		
that			it	's	a good idea	
because			it	can practice	their writing and their language	
which				help		
			them	to have	better grade	
when			they	must do	same as this	in the exam.

Analysis of Perfect Teacher Response by an Late Immersion writer (LI_PG) (P.2 of 3)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		Moreover,	they	thought		
that if			we	work		hard,
			we	can have	more patient to do everything	
	and		it	will		successful.
			Some of the student	want	teacher that have certain decision.	
			This	is	because the teacher can help them to decide and solve the problem in the right way and quickly than the kind teacher.	
		Overall, for some student,	the teacher that strict have strong decision and set lots of homework and hard work	are	all perfect teacher for them.	
		On the other hand	some student	think		
that			the perfect teacher	must be		kind,
				give	them a few homework	
	and			should listen		to the students.
			First reason for this	is	because it make them feel relaxing and enjoyable.	

Analysis of Perfect Teacher Response by an Late Immersion writer (LI_PG) (p.3 of 3)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
			The student	won't be		serious
if			they	have	homework,	
			they	can join to	the club	
	or			stay		at school longer
			They	don't need to worry		about homework.
		Furthermore	it	would be		better
if			the teacher	listen to	the student	
	or			be		friendly.
		For example,				
if			the students	have	problems,	
			they	will ask	the teacher	suddenly
because			they	believed		
that			the teacher	always listen		
	and			will have		
			them	solve	the problem	for sure
			This	is	another side of the perfect teacher.	
		Overall,	it	depend on	yourself	
that			what kind of teacher	are	perfect	for you.
			<i>I</i>	<i>think</i>		
<i>That</i>			<i>all of the teacher</i>	<i>have</i>	<i>their own reason to do anything.</i>	
	<i>and</i>		<i>it</i>			<i>always good for the students</i>

Counts of Features and Statistical Analysis for Text LI_PG Perfect Teacher

The Verbal Group Column: Total verb groups in the count: 47 Total finite groups: 45 Total non-finite groups: 5

Relational and Existential Clauses: Total BE: 12 Total HAVE: 7 Total Other: 2 Overall Total: 21
Frequency of relational clauses per verb group: 0.42

Material and Behavioural Processes: Total: 14 Frequency per verb group: 0.31

Mental Processes: Total perception verbs: 1 Total affection verbs: 1 Total instances of *think*: 5 Total of other cognitive verbs: 2 Total verbs of volition: 1 Overall Total: 10 Frequency of mental clauses per verb group: 0.21

Verbal Processes: Total verbal processes: 2 Frequency per verb group: 0.03

Causative and Phase Constructions : Total: 4 Frequency per verb group: 0.19

Modal Verbs: deontic function (*should*): 1 (*must*): 2 Other: 1 Total: 4 epistemic function: 0 *will*: 6 *can/able to*: 3 *would*: 1 Total modal verbs per finite verb group: 0.33

Passive Constructions: Total: 1 Frequency per verbal group: 0.02

Secondary Tenses: present perfect simple: 1 Total: 1 Frequency per finite verb group: 0.02

Noun Groups (subject slot): Total groups:42 Total words:84 Words per subject: 2.00 Single-word subjects: Total: 25 Frequency per group: 0.60

Total abstract nouns and nominalizations including gerunds (all noun groups, types not tokens): 5 (idea, answer, discussion, problem, reason) Frequency per noun group:0.08

Analysis of clause complexes, hypotactic conjunctions and complexity: Total T Units:20 Total consequence conjunctions: 8 (*because*: 3, *if*:5) Frequency of consequence conjunctions per T Unit:0.40 ; Total projection markers: 8 Frequency per T Unit: 0.40

Thematic Adjunct Slot: Total cohesive conjunctions: 7 Frequency per T Unit: 0.35; Prepositional phrases and other circumstantial elements: 1 Frequency per T Unit:0.05 Interpersonal adjuncts: 1 Frequency per T Unit: 0.05

Text example 3 – English Mother Tongue Group NE_1 The Perfect Teacher

Have you ever thought to your self and wished you had the perfect teacher? More suited to what you like.

Personally, my perfect teacher has to be well rounded, with charisma and enthusiasm to top it all off. A slight harshness is good as it reinforces their authority and lets the student know that respect is definitely needed however being too strict can really put you off a teacher. Ever been yelled at and suddenly felt that burning sensation run through your whole body? Well, I know I have and that feeling vigorously changes my thoughts on a teacher. Overall, in this department, it's best as a teacher to be cautiously strict but nothing more.

Although many students despise homework, I can't imagine educationally where I'd be without it. Homework gives a chance for independent learning which we should value greatly as one day, we are all going to be independent grown ups. On the other hand, there are those who set homework for no reason, which results in time spent on unimportant assignments. To conclude this point, I would have to say that the perfect teacher would know the exact amount of homework to set.

Adding to the perfect teacher guide, is humour and enthusiasm. A teacher who loves what he teaches and who talks to you about the subject whenever he or she can is excellent. In my opinion, this point is extremely important as you learn far more with a teacher who teaches exuberantly than you do with a bland and boring teacher. One of the many things I enjoy in school, is when teachers reminisce on their childhood and part adult-hood and adapt this into their lesson, it makes the whole class more focused and a lot more connected to the teacher. I have got to say that these funny little anecdotes to regain the focus of the students, is without a doubt under a perfect teacher list.

Another positive factor of a teacher is them listening to their students and being able to understand them and give elidgable advice. When students talk to their teachers about their various problems, I am sure that the teacher always has a sense of nostalgia and remembers when he or she were in the same position. Having a grown up to help you through school life when you need it, is truly amazing, much better than a hard and unemotional person.

In addition, it is always good to have a teacher who has other interests and who is involved in the community, the culture and the ongoing events. From my point of view, teachers who can get the whole class to participate in a discussion is very impressive and I admire that. Also, it is always pleasant to see a teacher support his students at music festivals, sport competitions and drama presentations.

To sum up, being the perfect teacher isn't easy and it takes a lot more than being intelligent and nice. The perfect teacher should carry enthusiasm, humour, interest, understanding, caringness, smartness, and last of all, a perfect teacher is always modest. I hope this article has helped you find your perfect teacher. Send in a response to www.BPM.ac.th and tell us your opinions on the perfect teacher. Thank you for reading.

Analysis of Perfect Teacher Response by an English Mother Tongue Writer (NE_1) (P.1 of 6)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
			(you)	<i>Have you ever thought</i>		<i>to your self</i>
	<i>and</i>			<i>wished</i>		
			<i>you</i>	<i>had</i>	<i>the perfect teacher?</i>	
						<i>More suited to what you like.</i>
		<i>Personally,</i>	<i>my perfect teacher</i>	<i>has to be</i>		<i>well rounded, with charisma and enthusiasm to top it all off.</i>
			<i>A slight harshness</i>	<i>is</i>		<i>good</i>
<i>as</i>			<i>it</i>	<i>reinforces</i>	<i>their authority</i>	
	<i>and</i>			<i>lets</i>		
			<i>the student</i>	<i>know</i>		
<i>that</i>			<i>respect</i>	<i>is definitely needed</i>		
		<i>however.</i>	<i>being too strict</i>	<i>can really put you off</i>	<i>a teacher</i>	
				<i>Ever been yelled at</i>		
	<i>and</i>	<i>suddenly</i>		<i>Felt</i>	<i>that burning sensation run through your whole body?</i>	

Analysis of Perfect Teacher Response by an English Mother Tongue Writer (NE_1) (P.2 of 6)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		<i>Well,</i>	<i>I</i>	<i>know</i>		
			<i>I</i>	<i>have</i>		
	<i>and</i>		<i>that feeling</i>	<i>vigorously changes</i>	<i>my thoughts on a teacher.</i>	
		<i>Overall, in this department,</i>	<i>It</i>	<i>'s</i>		<i>best as a teacher to be cautiously strict but nothing more.</i>
<i>Although</i>			<i>many students</i>	<i>despise</i>	<i>homework,</i>	
			<i>I</i>	<i>can't imagine</i>		<i>educationally</i>
<i>where</i>			<i>I</i>	<i>'d be</i>		<i>without it.</i>
			<i>Homework</i>	<i>gives</i>	<i>a chance for independent learning</i>	
<i>which</i>			<i>we</i>	<i>should value</i>		<i>greatly</i>
<i>as</i>		<i>one day,</i>	<i>we</i>	<i>are all going to be</i>	<i>independent grown ups.</i>	
		<i>On the other hand,</i>	<i>there</i>	<i>are</i>	<i>those who set homework for no reason,</i>	
<i>which</i>				<i>results in</i>	<i>time spent on unimportant assignments.</i>	

Analysis of Perfect Teacher Response by an English Mother Tongue Writer (NE_1) (P.3 of 6)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		<i>To conclude this point,</i>	<i>I</i>	<i>would have to say</i>		
<i>that</i>			<i>the perfect teacher</i>	<i>would know</i>	<i>the exact amount of homework to set</i>	
			<i>Adding to the perfect teacher guide,</i>	<i>is</i>	<i>humour and enthusiasm.</i>	
			<i>A teacher who loves what he teaches and who talks to you about the subject whenever he or she can</i>	<i>is</i>		<i>excellent.</i>
		<i>In my opinion,</i>	<i>this point</i>	<i>is</i>		<i>extremely important</i>
<i>as</i>			<i>you</i>	<i>learn</i>		<i>far more with a teacher who teaches exuberantly than you do with a bland and boring teacher.</i>

Analysis of Perfect Teacher Response by an English Mother Tongue Writer (NE_1) (P.4 of 6)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
			<i>One of the many things I enjoy in school, ,</i>	<i>Is</i>	<i>when teachers reminisce on their childhood and part adult-hood and adapt this into their lesson</i>	
			<i>it</i>	<i>makes</i>	<i>the whole class more focused and a lot more connected to the teacher.</i>	
			<i>I</i>	<i>have got to say</i>		
<i>that</i>			<i>these funny little anecdotes to regain the focus of the students</i>	<i>, is</i>		<i>without a doubt under a perfect teacher list.</i>
			<i>Another positive factor of a teacher</i>	<i>is</i>	<i>them listening to their students and being able to understand them and give elidgable advice.</i>	

Analysis of Perfect Teacher Response by an English Mother Tongue Writer (NE_1) (P.5 of 6)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
<i>When</i>			<i>students</i>	<i>talk.</i>		<i>to their teachers about their various problems,</i>
			<i>I</i>	<i>am</i>		<i>sure</i>
<i>that</i>			<i>the teacher</i>	<i>always has</i>	<i>a sense of nostalgia</i>	
	<i>and</i>			<i>remembers</i>		
<i>when</i>			<i>he or she</i>	<i>were</i>		<i>in the same position</i>
			<i>Having a grown up to help you through school life when you need it,</i>	<i>is</i>		<i>truly amazing, much better than a hard and unemotional person.</i>
		<i>In addition,</i>	<i>it</i>	<i>is always</i>		<i>good to have a teacher who has other interests and who is involved in the community, the culture and the ongoing events.</i>
		<i>From my point of view,</i>	<i>teachers who can get the whole class to participate in a discussion</i>	<i>is</i>		<i>very impressive</i>
	<i>and</i>		<i>I</i>	<i>admire</i>	<i>that.</i>	

Analysis of Perfect Teacher Response by an English Mother Tongue Writer (NE_1) (P.6 of 6)

Subordinator	Coordinator	Adjunct(Cohesive conjunction, circumstance, interpersonal adverb)	Subject noun group	Verbal group	Object noun group	Circumstance, interpersonal adverb or adjective group
		<i>Also,</i>	<i>it</i>	<i>is</i>		<i>always pleasant to see a teacher support his students at music festivals, sport competitions and drama presentations</i>
		<i>To sum up,</i>	<i>being the perfect teacher</i>	<i>isn't</i>		<i>easy</i>
	<i>and</i>		<i>it</i>	<i>takes</i>	<i>a lot more than being intelligent and nice.</i>	
			<i>The perfect teacher</i>	<i>should carry</i>	<i>enthusiasm, humour, interest, understanding, caringness, smartness,</i>	
	<i>and</i>	<i>last of all,</i>	<i>a perfect teacher</i>	<i>is</i>		<i>always modest.</i>
			<i>I</i>	<i>hope</i>		
			<i>this article</i>	<i>has helped</i>		
			<i>you</i>	<i>find</i>	<i>your perfect teacher.</i>	
				<i>Send in</i>	<i>a response</i>	<i>to www.BPM.ac.th</i>
	<i>and</i>			<i>tell</i>	<i>us your opinions on the perfect teacher.</i>	
				<i>Thank</i>	<i>you</i>	<i>for reading.</i>

Counts of Features and Statistical Analysis for Text NE_1 Perfect Teacher

The Verbal Group Column

Total verb groups in the count: 55 Total finite groups: 54 Total non-finite groups: 1

Relational and Existential Clauses: Total BE: 20 Total HAVE:2 Total Other:4 (including verb *result in*) Overall Total:26 Frequency of relational clauses per verb group: 0.47

Material and Behavioural Processes: Total:15 Frequency per verb group:0.27

Mental Processes: Total perception verbs: 1 Total affection verbs: 3 Total instances of *think*:1 Total of other cognitive verbs: 5 Total verbs of volition:2 Overall Total:12 Frequency of mental clauses per verb group: 0.22

Verbal Processes: Total verbal processes:4 Frequency per verb group: 0.07

Causative and Phase Constructions : Total:2 Frequency per verb group: 0.04

Modal Verbs: deontic function (*should*): 0 Other: 3; epistemic function:1 *will*:0 *can/able to*:2 *would*:3 Total modal verbs per finite verb group: 0.17

Passive Constructions: Total:2 Frequency per verbal group:0.04

Secondary Tenses: present perfect simple: 6 *going to*:1 Total: 7 Frequency per finite verb group: 0.11

Noun Groups (subject slot): Total groups:47 Total words:139 Words per subject:3.02 Single-word subjects: Total:24 Frequency per group:0.51

Total abstract nouns and nominalisations including gerunds (all noun groups, types not tokens): 28 Frequency per noun group: 0.29

Analysis of clause complexes, hypotactic conjunctions and complexity: Total T Units: 31 Total consequence conjunctions: 6 (*because*:0 other cause conjunctions: 3 , *If*:3) Frequency of consequence conjunctions per T Unit:0.19 Concession (*although*): 1 ; Total projection markers: 4 Frequency of projection per T Unit: 0.14

Thematic Adjunct Slot: Total cohesive conjunctions:8 Frequency per T Unit: 0.26; Prepositional phrases and other circumstantial elements: 1 Frequency per T Unit:0.03 ; Interpersonal adjuncts:5 Frequency per T Unit: 0.16 Complex: 1 Freq. Per T Unit: 0.03