Cohesion and the Social Construction of Meaning in the Essays of Filipino College Students Writing in L2 English

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This study compares the degree of cohesion and coherence in the essays written by thirty Filipino college freshmen and analyzes how the social construction of meaning was made evident in their writing. Results showed that low, mid and highly rated essays were comparable in grammatical cohesive device use. Lexical repetition and use of synonyms were the most common means of establishing lexical cohesion. The findings suggest that second language writers with shared socio-cultural backgrounds utilize similar linguistic and textual resources in meaning construction, highlighting the socio-cognitive nature of writing practices and how literacy is a social act (Ramanathan & Kaplan, 2000). The students' lexicogrammatical choices reflect the interrelationship of language and culture. Implications for second language pedagogy accounting for learners' sociolinguistic backgrounds are discussed.

Key Words: interest Cohesion, social construction of meaning, Filipino, ESL/EFL

The investigation of writing processes and products in EFL and ESL classrooms has greatly contributed to the continued growth of scholarship in the field of second language writing (Bosher, 1998; Tarone, et al., 1993). The results of such research have helped in building proposed models of the processes that second language writers engage in as they write (Matsuda, 1997; Sasaki, 2000). At the same time, textual and interactional analyses of students' written outputs highlight the importance of attempting to arrive at a comprehensive description of the complex relationships that bind the writer, the text and the reader (Lee, 2002; Reid, 2000). One research focus that considers the textual features of L2 writing within a socio-cognitive domain is the study of coherence and cohesion.

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Text has been defined as a "multidimensional construct conveying meaning at different levels" (Halliday & Hasan, 1985, p. 136), and cohesion refers to the lexicogrammatical features of a text that give it texture. Cohesion explains how meaning is constructed based on the semantic relations that are motivated between and among the lexical and grammatical items in a text (Halliday & Hasan, 1976). Cohesion distinguishes texts from non-texts and enables readers or listeners to establish relevance between what was said, is being said, and will be said, through the appropriate use of the necessary lexical and grammatical cohesive devices. Cohesion occurs when the semantic interpretation of some linguistic element in the discourse depends on another. It is the "foundation upon which the edifice of coherence is built" (Halliday & Hasan, 1985, p. 94) and is "an essential feature of a text if it is judged to be coherent" (Parsons, 1991, p. 415).

The relationship between cohesion and coherence is evident in studies that have investigated these two constructs and attempt to integrate them into a unified theory to account for writing quality. Cohesion analysis has been used to characterize the essays written by native speakers of English in studies that investigated writing quality. Witte and Faigley

(1981) analyzed cohesion and found that highly rated essays were longer, had more nonrestrictive modifiers, had fewer errors, and were cohesively denser compared to poorly rated ones. In addition, well-written essays had twice as many instances of reference, conjunctions, and lexical collocation.

Coherence therefore is broadly construed as "the relationship that links ideas in a text to create meaning for readers" (Lee, 2002, p. 135). In short, coherence results from the meaningful interaction between the text and the reader (Halliday & Hasan, 1985). This idea is supported by the cognitive theory of discourse. A more complex relationship is proposed by the interactional theory of discourse which introduces the writer's intentions, the writing context and the relationship between the writer and the readers as factors that bring about coherence (Lee, 2002). In other words, a purely text-based construct of what constitutes writing quality may not substantially contribute towards a better understanding of textual coherence (Carrell, 1982; Green, 1989; Green & Morgan, 1981; Morgan & Sellner, 1980; Tyler, 1994).

Tierney and Mosenthal (1983) analyzed the relationship between coherence and cohesion in the essays of twelfth graders and found no causal relationship between the two constructs, suggesting that a purely text linguistic approach in analyzing essays may not paint a complete picture of what constitutes writing quality. In another study, Connor (1984) analyzed the cohesive density exhibited in the argumentative essays of two L1 English and two advanced ESL writers (L1 Japanese and L1 Spanish). Connor found that to be cohesive, ESL texts did not need to be coherent and that there was no difference in the use of reference or conjunction in ESL versus L1 English texts. Furthermore, Connor suggested that ESL essays lacked lexical variety and elaboration while L1 English texts displayed greater lexical variety.

McCulley (1985) also investigated the connection between cohesion and writing quality in his analysis of essays written by 17-year old students. McCulley found that writing quality did not correlate with the total number of cohesive ties. However, there was a positive correlation between the essay's persuasiveness and coherence rating on the one hand, and writing quality and specific cohesive ties on the other. In another study, Neuner (1987) analyzed 20 good essays and 20 poor essays written by college freshmen and found that the number of cohesive ties did not distinguish good from weak essays, but longer cohesive chains, greater lexical variety, and effective word choice characterized well-written essays.

In their analysis of conjunction use in the argumentative essays of Australian eleventh graders and Cantonese students from three schools in Hong Kong, Field and Oi (1992) found that the L2 English texts contained significantly more conjunctions compared to the L1 English ones. Cohesive device use in essays written in L1 Malay, L1 English, and Malay ESL was studied by Johnson (1992) who found no significant difference in the degree of cohesion between good versus poor essays in any of the groups. The well-written L1 Malay essays exhibited more instances of repetition, and the well-written L1 English essays exhibited more instances of reference and conjunction. The results imply that differences in cohesive device use were revealed when specific types of cohesive devices were accounted for in the analysis.

The pattern of mixed findings was again evident in Ferris' (1994) analysis of text variables exhibited in low versus highly rated essays written by L1 Arabic, Chinese, Japanese, and Spanish ESL writers as part of a university placement test. Ferris found that low scoring essays relied on repetition, the same result obtained by Connor and Neuner but not McCulley. Norment (1994) analyzed cohesive device use in expository and narrative essays written in L1 Chinese, Chinese ESL, and L1 English. Results showed that high proficiency writers (both Chinese and English) wrote essays with more cohesive devices; the most frequently occurring were repetition, pronouns, and conjunction.

In a later study, El-Shiyab (1997) described lexical cohesion and the interaction of identity chains in different types of Arabic texts and concluded that chains show the semantic relationships between and among referential and cohesive devices. Norment (1995, 2002) analyzed the occurrence of cohesive devices in the narrative, argumentative, and expository essays of African American students representing two levels of proficiency. He found a positive correlation between the cohesive density of a text and a writer's proficiency in English. Finally, Castro (2004) compared the occurrence of lexical cohesion in the L2 English texts written by L1 speakers of Arabic, Japanese and Spanish. Results suggest shared patterns of textual cohesion and meaning construction in the L2 English texts of writers from different linguistic and cultural backgrounds. The use of repetition, pronominals and synonyms cut across cultural boundaries, and revealed the text linguistic strategies used by L2 English student writers in the construction of meaningful texts.

In short, while some studies showed that cohesive device use differed in good versus weak L1 and L2 texts (Field & Oi, 1992; McCulley, 1985; Norment, 1994, 1995; Witte & Faigley, 1981), others found no difference in cohesion in good and weak essays (Connor, 1984; Johnson,

1992; Neuner, 1987; Tierney & Mosenthal, 1983). Furthermore, previous research comparing the written essays of skilled and less-skilled L2 writers (Krapels, 1990; Raimes, 1985, 1987; Santos, 1988; Silva, 1993; Victori, 1999; Zamel, 1982, 1983) is characterized by variability in the participants' first language, age, cultural background, amount of English instruction received, and time spent in an English-speaking environment. Thus, there is a need for studies that investigate writing in the context of a discourse community that includes writers, texts and readers in a distinct discursive space because not enough is known about the lexical, syntactic or rhetorical features of writing by a particular group of learners operating in particular contexts (Hyland, 2003).

The present study draws from prior research in textual cohesion and investigates the relationship between writing quality and cohesiveness in the essays written by a homogeneous group of L2 English writers as it answers the following research questions:

1. Is there a significant difference in the number of grammatical and lexical cohesive devices in L2 English essays that are rated, low, mid and high in terms of quality?
2. What lexicogrammatic resources are used by Filipino college students in the social construction of meaning?

Methodology

Participants

Thirty first-year college students from three intact English classes taught by this researcher at a private Philippine university participated in the present study. The students have had at least six years of English instruction in elementary school and four years in high school prior to their acceptance into the university. The students shared a common L1 (Filipino), had a common cultural background, and ranged in age from 15 to 19. All the students signed a written consent form before participating in the study.

Procedure

The students were asked to write a take-home essay designed to prompt them to express their opinions, defend their stance, and include factual details and personal beliefs in their writing. The writing prompt, which appears below, was on the advantages and disadvantages brought by technology.

Supporters of technology say that it solves problems and makes life better. Opponents argue that technology creates new problems that threaten and damage the quality of life. Using examples by which technology has improved or damaged modern living conditions, write an essay that discusses these two positions. Explain which view of technology you support and give reasons for your position.

Time spent writing the take-home essay was not controlled because a natural sample of the students' writing needed to be elicited. The students were allowed to consult a dictionary or thesaurus in writing. The essays were then assessed holistically by this researcher and an independent rater, also an English teacher, using an eight-point grading scale. Both raters noted what textual and rhetorical features in the essays influenced their rating and their comments were later compared. Interrater reliability in rating the writing samples was high ($r = .92$). The essays were then classified into low (0.0 – 1.5) (n = 11), mid (2.0 – 2.5) (n = 11), and high (3.0 – 4.0) (n = 8)[1].

Analysis

Grammatical cohesive devices establish cohesion by pointing back or pointing forward to a referent that gives them semantic value. This is achieved through the use of pronominals, conjunction, substitution, and ellipsis[2]. Example (1), which comes from one of the students' essays, shows an instance of grammatical cohesion achieved through the use of the pronominals *they* and *their* which are cohesively tied to the word *children*[3].

Ex. (1) It is a fact that *children* absorb whatever is being taught or shown to *them* without analyzing the right and wrong sides. Consequently, *they* get *their* perceptions about certain things and *their* moral values from TV.

Lexical cohesion is achieved when a cohesive tie is established between two lexical items that are semantically related. Semantic relations that result in lexical cohesion are established through repetition, synonymy, antonymy, hyponymy, meronymy, equivalence, naming, and semblance[4]. Example (2) illustrates lexical cohesion through the repetition of the words *technology* and *science*.

Ex. (2) *Technology* is an application of science. Through science, *technology* developed rapidly in industry, agriculture and medicine.

Two different lexical items are cohesively tied through synonymy if they have the same meaning or are considered semantic equivalents, e.g., *technology - science*. Two lexical items are cohesively tied through antonymy if they are semantic opposites, e.g., *advantage - disadvantage*. Two lexical items are considered to be hyponymous if the cohesive tie between them is based on a general-specific or specific-general semantic relationship, e.g., *machine - computer*. Two lexical items are cohesively tied through meronymy if the semantic relationship between them is based on a part-whole or whole-part connection. Lexical cohesion is also achieved through the repetition of the same lexical item and/or its derivatives and inflections. Lexical cohesion through equivalence is achieved when two lexical items have the same referent. It differs from synonymy in that the lexical items are not true semantic equivalents per se, but have the same referent within the text. It also differs from naming in that a proper name is not used to form a cohesive tie between the two lexical items. Cohesion through naming is achieved when one lexical item is tied to another that functions as its proper name, so that the two lexemes have the same referent, e.g., *company - Apple*. The explicit use of a proper name to achieve lexical cohesion distinguishes naming from synonymy and equivalence.

Results and Discussion

Grammatical cohesive devices establish textual cohesion

Table 1. *Mean Number of Grammatical Cohesive Devices per 100 Words*

Cohesive Device	Total Mean	Low N = 11	Mid N = 11	High N = 8
Reference	15.64 (3.15)	14.63 (2.00)	15.95 (2.10)	16.61 (5.13)
Pronominal	7.75 (3.22)	7.75 (3.13)	7.95 (2.33)	7.47 (4.58)
Demonstrative	0.96 (0.67)	0.58 (0.46)	1.24 (0.70)	1.09 (0.69)
Article	4.74 (1.73)	4.50 (2.24)	4.58 (1.33)	5.29 (1.51)
Comparative	2.19 (1.04)	1.80 (0.66)	2.18 (0.96)	2.76 (1.41)
Conjunction	0.46 (2.02)	9.64 (2.29)	9.26 (1.95)	9.10 (1.95)
Additive	4.91 (1.96)	5.18 (2.46)	4.79 (1.77)	4.71 (1.62)
Adversative	1.10 (0.88)	1.43 (1.19)	1.10 (0.66)	0.65 (0.39)
Temporal	1.38 (0.72)	1.22 (0.71)	1.34 (0.66)	1.66 (0.80)
Causal	1.50 (0.79)	1.36 (0.91)	1.60 (0.78)	1.57 (0.69)
Continuativ	0.46 (0.45)	0.45 (0.51)	0.44 (0.34)	0.51 (0.55)
Total	25.48 (3.39)	24.62 (3.71)	25.87 (1.96)	26.13 (4.55)

Note. Standard deviations are in parentheses.

through reference, conjunction, substitution and ellipsis. Table 1 shows the mean number of grammatical cohesive devices per 100 words in the low, mid and highly rated essays.

We find that reference cohesive devices occurred with higher mean frequencies compared to conjunctions, and that pronominals and additive conjunctions were the most frequently occurring types of grammatical cohesive devices, while demonstratives and continuatives occurred least frequently. These were the same cohesive devices that commonly occurred in L2 essays written by high proficiency Chinese ESL student writers (Norment, 1994), Cantonese student writers (Field & Oi, 1992), and advanced ESL writers with different L1s (Connor, 1984), and L2 writers in general (Silva, 1993). High incidence of conjunction use also characterized well-written essays (Johnson, 1992; Witte & Faigley, 1981).

Table 2 presents the results of the ANOVA that tested for within-subjects and between-subjects differences across the three groups of essays.

Table 2. *Results of One-way ANOVA Comparing Grammatical Cohesion Across Groups*

Cohesive Device		Sum of Squares	Mean Squares	F Statistic
Reference	Between groups	19.85	9.92	1.00
	Within groups	268.74	9.95	
Pronominal	Between groups	1.06	0.53	0.48
	Within groups	299.02	11.08	
Demonstrative	Between groups	2.57	1.29	3.34
	Within groups	10.40	0.38	
Article	Between groups	3.32	1.70	0.53
	Within groups	83.94	3.11	
Comparative	Between groups	4.26	2.13	2.10
	Within groups	27.41	1.02	
Conjunction	Between groups	1.50	0.75	0.17
	Within groups	117.16	4.34	
Additive	Between groups	1.29	0.65	0.16
	Within groups	110.28	4.08	
Adversative	Between groups	2.76	1.38	1.90
	Within groups	19.61	0.73	
Temporal	Between groups	0.91	0.46	0.88
	Within groups	13.92	0.52	
Causal	Between groups	0.35	0.18	0.27
	Within groups	17.80	0.66	
Continuative	Between groups	2.76	1.38	0.64
	Within groups	5.86	0.22	
Total	Between groups	13.05	6.53	0.55
	Within groups	321.152	11.90	

Note. Fcrit (2, 27) = 3.35

Results displayed in Table 2 indicate that there is no significant difference in grammatical cohesive device use across the three groups. This means that the essays are comparable in terms of the number of cohesive devices they contained. This finding provides empirical evidence for earlier claims made by Tierney and Mosenthal (1983), Connor (1984), Neuner (1987), and Johnson (1992) regarding the comparability of good and poor essays in terms of cohesive device use.

The results presented in Table 2 also show that there is no significant difference across the three groups of essays in terms of conjunction use. This result is consistent with earlier findings regarding the use of reference in general, and pronominals and the definite article in particular as means of establishing textual cohesion. Moreover, there was no significant difference either in the frequency of occurrence of reference and conjunction across the three groups of essays. This implies that cohesion analysis may be too fine-grained to distinguish differences at the discourse level between good versus poor essays, especially if they were written by a homogeneous group of writers writing on the same topic.

The lexicogrammatical comparability of the low, mid and highly rated essays also implies that the student writers in the present study are a homogeneous group with shared socialization, dimensions and practices of literacy. This could account for the uniformity in the quality of their written outputs. Since the student writers were comparable in terms of a number of sociolinguistic variables that differed greatly across subjects in previous studies (Connor, 1984; Ferris, 1994; Field & Oi, 1992; Johnson, 1992), it is conceivable that they would also be comparable in their use of cohesive devices as they constructed meaning while accomplishing the writing task.

It appears that fine-grained cohesion analysis and robust statistics may tease out differences only among diverse groups of writers who differ in race, age, L1, amount of exposure to the target language, and belong to disparate groups in terms of L2 proficiency and writing skill. The comparable cohesiveness of the low, mid and highly rated essays in the present study also suggests that staying on topic

Table 3. *Mean Number of Lexical Cohesive Devices per 100 Words*

Cohesive Device	Total Mean	Low N = 11	Mid N = 11	High N = 8
Repetition	8.45 (1.97)	7.07 (3.50)	7.60 (2.99)	8.45 (1.97)
Synonymy	2.59 (1.89)	3.26 (2.33)	1.74 (1.67)	2.82 (1.07)
Antonymy	0.40 (0.62)	0.59 (0.81)	0.23 (0.46)	0.37 (0.52)
Meronymy	0.40 (0.62)	0.59 (0.81)	0.23 (0.46)	0.37 (0.52)
Hyponymy	1.17 (1.26)	1.10 (1.19)	0.84 (1.41)	1.72 (1.11)
Equivalence	0.28 (0.58)	0.31 (0.68)	0.21 (0.39)	0.33 (0.71)
Naming	1.51 (1.56)	1.02 (1.11)	1.80 (1.60)	1.78 (2.01)
Total	15.02 (4.47)	15.01 (6.06)	13.52 (3.21)	17.09 (2.71)

Note. Standard deviations are in parentheses.

contributes to textual cohesion (Carrell, 1982; Green, 1989; Green & Morgan, 1981; Morgan & Sellner, 1980; Tyler, 1994).

Let us now consider the incidence of lexical cohesion as achieved through synonymy, antonymy, hyponymy, meronymy, equivalence, naming, semblance, and the repetition of the same lexical item. Table 3 shows the mean frequency of occurrence per 100 words of these lexical cohesive devices identified in the students' essays.

Repetition and synonymy were the most frequently occurring types of lexical cohesive devices, while antonymy, meronymy, and equivalence occurred less frequently. This reflects earlier characterization of ESL essays as using primarily repetition in establishing lexical cohesion (Castro, 2004; Connor, 1984; Norment, 1994). However, the fact that synonymy also occurred with relatively high frequency in the essays in this study belied the assessment that L2 English writers did not favor the use of synonymy in their essays (Connor, 1984). On the one hand, repetition and synonymy were shown to characterize good essays (McCulley, 1985), or the written products of advanced ESL writers (Norment, 1994). On the other hand, some studies report that greater lexical variety rather than lexical reiteration marked well-written texts (Connor, 1984; Ferris, 1994; Neuner, 1987). In interpreting results from previous studies on cohesion analysis, it is important to bear in mind that findings were often based on comparisons of ESL and L1 texts. Thus, it is possible that such studies may not actually provide an accurate description of the degree of cohesion exhibited by ESL texts.

Table 4 presents the frequency of occurrence of the different types of lexical cohesive devices in the low, mid and highly rated essays.

There is no significant difference in the overall frequency of occurrence of lexical cohesive devices in the essays. These results reflect earlier findings regarding grammatical cohesive devices as shown in Table 2. A high percentage of the lexical items that were cohesively tied through repetition were nouns (68%), while the adjectives (16%) and verbs (16%) made up the rest. The nouns that were cohesively tied through repetition included *technology, advancement, automobile, communication, computers, effects, environment, equipment, factory, inventions, life, machine, medicine, pollution, problems, products,* and *science.* The adjectives that were commonly repeated included *atomic, bad, comfortable, convenient, easy, good, high, instant, medical, modern, negative, new,* and *productive.* Commonly repeated verbs included *change, damage, destroy, help, improve,*

Table 4. *Results of One-way ANOVA Comparing Lexical Cohesion Across Groups*

Cohesive Device		Sum of Squares	Mean Squares	F Statistic
Repetition	Between groups	8.86	4.43	0.50
	Within groups	239.08	8.86	
Synonymy	Between groups	13.36	6.68	1.99
	Within groups	90.42	3.35	
Antonymy	Between groups	0.70	0.35	0.90
	Within groups	10.48	0.39	
Meronymy	Between groups	0.70	0.35	0.90
	Within groups	10.48	0.39	
Hyponymy	Between groups	3.63	1.81	1.15
	Within groups	42.63	1.58	
Equivalence	Between groups	8.53	4.26	0.12
	Within groups	9.65	0.36	
Naming	Between groups	4.10	2.05	0.84
	Within groups	66.34	2.46	
Total	Between groups	59.05	29.53	1.53
	Within groups	521.44	19.31	

Note. Fcrit (2, 27) = 3.35

increase, inventing, made, and *threaten*.

A closer analysis of the synonymous words identified in the essays showed that there were three kinds of semantic relationships established and that they were all prompt-related. Firstly, the students used synonyms relating to the positive aspect and contribution of technology by using words such as *advancement – development – progress, knowledge – science, fast-paced – modern, save – solve, educating – informing, good – right, machine – tool – device, output – product, advantage – benefit, ease – improve, comfortable – relaxed, good – positive*.

Secondly, the writers used synonyms denoting the negative aspects of technology such as *damage – degrade – destroy, endanger – threaten, dangers – problems*. Thirdly, they established synonymous relationships using lexical items that refer to the different consequences of technological advancement such as *facilities – services, compute – count, ecosystem – nature, environment – resources, materials – products – things*.

There were two types of hyponymous relationships established in the essays and they were all related to the essay topic. First, as in the case of synonymy, there were hyponymous relationships involving the positive effects of technology on society, as exemplified by *invention – automobile, computers; machine – fax machine, ATMs, microwave, television; phone – cell phone; transportation – cars, planes, bullet train; communication – telephone, pagers, radio; cure – drugs, vaccine; energy: electricity*. The second type of hyponymous relationships had to do with the negative aspects of technology as expressed by *bomb – atomic bomb, plutonium bomb; destruction – drought, erosion, landslide, flood; destruction – war, sickness, poverty; poison – pollution*.

The fact that the hyponymous and synonymous relationships that were established in the essays related to the essay topic again suggests that cohesive device use may be the byproduct of staying on topic (Carrell, 1982; Green, 1989; Green & Morgan, 1981; Morgan & Sellner, 1980). It may well be that the homogeneous group of L2 student writers shared and activated similar schemata. Schema theory, an alternative to cohesion analysis, is "an approach to information processing emanating from research in cognitive science…[It] maintains that processing a text is an interactive process between the text and the prior background knowledge or memory schemata of the listener or reader" (Carrell, 1982, p. 482). Put simply, textual coherence does not exist independently of the reader's or hearer's interpretation of the written text or spoken discourse.

Drawing from schools of thought regarding the role of schemata, pragmatics, and cohesion in establishing textual coherence, Johns (1986) acknowledged the importance of both text-based as well as reader-based approaches in the study and teaching of writing. Similarly, Tyler (1994) proposed an integrated discourse framework that synthesized the arguments put forth by Morgan and Sellner (1980), Green and Morgan (1981), Carrell (1982), Green (1989) and the cohesion framework of Halliday and Hasan (1976). Tyler argued that the activation of schemata, compliance with pragmatic principles, and lexical repetition, contribute to the comprehensibility of spoken, and in the present study, written discourse, and that the absence of appropriate patterns of repetition contribute to the perceived incoherence of nonnative discourse. Coherence depends not on the local, text-bound relationship between and among the lexical items in a given text. Rather, textual coherence depends on the relationship between word meaning and the outside world, and how the reader or hearer draws upon word and world knowledge to make sense of what is being said or read (Hasan, 1984).

Going back to the ANOVA results in Table 4, we note that instances of equivalence pertained mostly to the negative effects that technology has brought to modern society. These included the various forms of environmental destruction and the corruption of morals, especially among the young. Examples of naming included *disease – AIDS; nature – Mother Nature; years – 1700s, 1900s, 2000s; companies – Mackintosh [sic], Apple; scientists – Einstein, Franklin, Grahambell* [sic]*, Newton; LRT* [Light Rail Transit] *– electric train*.

To summarize, we find that the textual cohesiveness exhibited in the essays of Filipino college freshmen contained minimal differences, and this may be explained by drawing from what Ramanathan and Kaplan (2000) refer to as the socio-cognitive nature of writing practices that shape writers. The similarities in the student writers' sociolinguistic and cultural backgrounds were manifested in a specific practice of literacy, in this case, writing in English as the target language. The uniformity in their choice of cohesive devices implies a collective consciousness produced by literacy as a social act. It also shows how L2 writing in the classroom can be a "socially situated response to particular writing contexts and communities" (Hyland, 2003, p. 17) and how "a writer's choices are always context-dependent" (p. 21).

The raters' comments on the students' essays revealed that they [raters] took into account specific textual and

rhetorical features in rating the essays. They showed a preference for a three- or four-paragraph presentation of the main points and supporting details. This includes the introductory and concluding paragraphs, and one or two paragraphs in the body of the essay to present the arguments for or against technology. Moreover, the raters expected that the effects of technology be sufficiently discussed and not merely listed. They also noted the essays' grammatical accuracy, use of transitions, variety in syntactic constructions, diction, and the appropriateness of the tone or "voice" that the writer used.

The textual and rhetorical concerns evident in the raters' comments manifest the cultural specificity of what constitutes a well-written essay in the context of tertiary level education in the Philippine setting. Second language writers are therefore expected to exhibit literacy, i.e., "good writing", by conforming to a set of expectations, which communicate the social as well as cognitive aspects of a Philippine educational system that tends to draw heavily from Western standards and practices in terms of structure and substance. It is not the purpose of this paper to debate the issue of whether or not such practices are advantageous or detrimental to Filipino students. Rather, the results of the cohesion analyses and the arguments offered to explain them suggest how language and culture are inextricably linked and how this interrelationship becomes apparent at the lexicogrammatical level.

Conclusions

Current research in discourse and writing has shifted attention from an interest only in lexicogrammatical features to the dynamics of writing as social interaction, and writers are now rightly viewed as "social actors who bring personal and cultural histories to their writing" (Matsuda, Canagarajah, Harklau, Hyland, & Warschauer, 2003, pp. 166-167). As Scollon (1995, as cited in Atkinson, 2003) puts it, writing is a cultural activity; hence, given the value attached to essay writing in academic contexts, studying L2 writers' compositions helps us make inferences about the nature of text-based interactions among teachers and student writers (Harklau, 2002).

The results of the cohesion analysis indicated no significant difference in the number and types of grammatical or lexical cohesive devices in the low, mid and highly rated essays in the present study. This may be because the participants were a homogenous group of L2 English student writers who shared and activated similar schemata in accomplishing the writing task, resulting in the essays' text

linguistic comparability. The fact that the essays of the Filipino first-year college students in this study were uniform in terms of the lexicogrammatical features used to establish cohesion demonstrates how the framework of cohesion may be used to support the argument regarding the co-constitutive nature of language and culture and the social dimension of literacy in the context of second language writing. The general themes that emerged in the student writers' essays as they tackled the advantages brought about by technology illustrated their shared universe of discourse as they wrote about improvements in transportation, communication, manufacturing, gadgets, appliances, medicine and science. Similarly, the collective consciousness evident in the student writers' essays on the detrimental effects of technology conveyed images of environmental destruction and moral corruption. Cohesion analysis revealed the common thread that runs through the essays, regardless of the rating they received.

The commonalities revealed by the raters' comments regarding the qualitative textual characteristics of the Filipino student writers' essays revealed the assessment standards that English teachers at the tertiary level in the Philippines adhere to as they rate students' writing. Since literacy, or what is deemed "good writing", is both a social practice and a cognitive act, it would be prudent to review whether the standards that writing teachers adhere to are appropriate, given the L2 context in which the students operate and write.

One important limitation of this study is its small sample size, which may constrain our ability to generalize the results to other populations of second language writers in other contexts. In addition, to investigating the textual and rhetorical features, as well as composing practices of a larger number of L2 writers, future studies on L2 writing would be greatly enriched by taking into account how sociolinguistic variables such as the writers' age, L1, race, L2 proficiency may influence the social construction of meaning in L2 texts.

Finally, one area of research not covered by the present study is the issue of how questions of cohesion or coherence are resolved in the writer's composing processes. By addressing this question, we can arrive at an integrated theory of writing (Connor, 1987) that acknowledges the contribution of product and process research on the one hand, and text-based and pragmatic approaches on the other, as we work towards achieving a comprehensive description of second language writing.

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Notes

1. No essay received a rating of 4.0.
2. Substitution and ellipsis were excluded in the analysis because there were not enough cases to warrant inclusion.
3. All excerpts are reproduced verbatim from student essays.
4. There were not enough instances of semblance to warrant inclusion in the analysis.