

## Topical Structure Analysis as an Assessment Tool in Student Academic Writing

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### ABSTRACT

*In an attempt to establish the validity of Topical Structure Analysis (TSA) as an assessment tool in student academic writing, this study applies TSA in both high- and low-rated comparison-and-contrast essays. Following Simpson's (2000) model, the study consists of two parts. The first part quantitatively describes the physical structure of freshman college students' high- and low-quality comparison-and-contrast essays, and the second part presents how the topical development is carried out in the said essays. Results show that although there is a remarkable parallel preference of topical progressions between the two groups of data, over 60 percent of independent clauses in the low-quality writing introduce new topics compared to less than 50 percent in high-quality writing samples. Two-proportion z-test shows that the difference is significant,  $p=.012 < .05$ . Therefore, it may be inferred that low-quality writing tends to introduce more new topics in the independent clauses than in high-quality writing.*

*Keywords: topical progressions; internal coherent structure; sentence elements; students' essays; TSA*

### INTRODUCTION

As early as 1978, Sommers (cited in Kroll 1990) was able to conclude that for native speakers of English, the novice writers focused merely on the lexical level of composition while disregarding the appropriateness of the utterance; whereas, experienced writers are able to include all linguistic levels to “shape the argument to fit the writer’s purpose”(p. 126). Based on Sommer’s study, Connor and Kaplan (1987) infer that if native writers of English encounter constraints in composition writing, then it is likely that ESL learners would also have certain difficulties in these aspects. Connor and Kaplan (1987) define a text as “an extremely complex structure and in order to perform comprehensive analysis of any text it is necessary to examine the various levels of language which constitute that text” (p. 2); then they go on to identify the three levels of language which constitute that text, namely intrasentential structure, intersentential structure and discourse structure.

Considering these three levels, what becomes apparent is that as a writer moves into these distinct levels, the writer would eventually go beyond grammar and vocabulary into the business of linking linguistic elements to produce a unified, coherent whole composition at the discourse level. At present, an abundance of literature exists on the establishment of coherence from different perspectives. Traditional product oriented approaches to ESL writing tackled coherence building from the development of the paragraph based on (1) the arrangement of ideas by ordering subordinate ideas clustered around a main idea and in turn, extending the paragraph with other coordinate ideas; (2) the use of patterns of organization (cause-effect, chronology, comparison, etc.); (3) the breaking of the composition into parts (introduction-body-conclusion); and (4) the use of discourse markers which allows the reader to navigate through the page by paying attention to transitional elements (Silva 1990,

Matsuda 2001).

The shift to more process oriented approaches to ESL writing acknowledged the limitations of focusing only on the surface level of texts since the act of writing is found to be “non-linear, exploratory, and generative process whereby writers discover and reformulate their ideas as they attempt to approximate meanings” (Zamel 1983, p. 165). This shift has also been influenced by the social construction theory of meaning where culture does, in fact, influence the writing act at both surface and discursive level since “[h]ow one constructs knowledge is a function of the prior experiences, mental structures, and beliefs that one uses to interpret objects and events” (Jonassen 1991, p. 10). Based on this dynamic view of the writing act, novice writers are encouraged to revise their written outputs: “In the process centered approach to composition, writing is viewed as a recursive process in which students are encouraged to revise as they write and to produce multiple drafts of their essays” (Connor & Farmer 1990, p. 127); however, early on, Connor and Farmer caution mentors about the need to guide ESL learners on the “situational and contextual causes of revision”. This implies that in a process-oriented approach, the linguistic component has to be contextualised with the socio-cultural and cognitive dimensions (Connor 1996).

### TOPICAL STRUCTURE ANALYSIS

TSA is one of the strategies offered to address the problem of how to achieve coherence in writing from a more process oriented and cognitive perspective. TSA was first conceived by Lautamatti in 1987 as a way of describing how coherence of texts is formed based on the sequencing of topics per sentence within a paragraph: this method “[f]ocuses on the semantic relationship that exists between the sentence topic and the discourse topic” (Connor & Farmer 1990, p. 127). In this type of analysis, coherence is derived from how the writer positions the topic within a clause and then how it progresses in a paragraph within the entire composition to show how the sequencing of topics “works through the text to progressively build meaning” (p.127). In this way, one could actually visualise how topics are developed within a paragraph by plotting the sequence of topical subjects in a table format. TSA is able to demonstrate the following features of a written text:

- 1) Identification of sentence topics;
- 2) Determining sentence progression; and
- 3) Charting the progress of sentence topics.

Lautamatti (1987) calls the sequencing of topics per sentence as progressions which are of three types: parallel progression, sequential progression, and extended parallel progression. Lautamatti (1987) uses TSA in order to examine topical development in written discourse in comparing an original text with its simplified version. In other words, using current parlance, the simplified text would be a reader-friendly version for beginners. In her research, Lautamatti (1987) was primarily concerned with readability measures which include both the physical structure of texts (Simpson 2000) and the meaning of the discourse.

The way in which TSA was formulated, it is not surprising that the application of TSA in applied linguistics spread into many areas in academic writing. A number of studies which applied TSA have gathered empirical evidence to demonstrate that, indeed, there is a relationship between topical development and coherence, a text feature that facilitates its comprehensibility. In view of this, TSA has been instrumental in assessing how good or weak a piece of writing is.

An application that lends support to this correlation is the study conducted by Schneider and Connor (1991) which uses TSA as a tool to describe the difference between

high- and low-rated essays. It appears that there is a difference in proportion of preferred sentence progression types between the two groups. Schneider and Connor's study (1991) reveals that highly rated essays are those that show a high proportion of sequential progression and an extended parallel progression. These two types of topical development denote that the student writers are able to show a logical succession of their ideas and are able to pull those back to the main theme (Carreon 2006, p. 158). The study concludes that there appears to be a correlation between preferred progression types and how it builds the logical presentation of ideas.

The other relevant application is the study done by Connor and Farmer (1990). Connor and Farmer (1990) taught topical structure analysis as a revision tool for ESL students in intermediate- and advanced level writing classes. There are two main reasons why TSA is an effective supplement for improving student writing which, according to Connor and Farmer, in no way intends to replace teacher corrective feedback or peer comments. The first reason is that TSA focuses "on the semantic meaning of the sentences and their sequencing in developing an overall discourse topic" and this veers away from Christensen's approach to coherence which merely focuses on "rhetorical roles of sentences" (p. 127). Second, TSA addresses both the local and global coherence of texts. Connor and Farmer define local coherence as "what the sentence is about"; and global coherence as "how sentences build meaning in relation to each other and the overall discourse topic" (p. 128).

Another research was conducted by Simpson (2000), who examined the topical progressions "of 40 paragraphs selected from articles published in academic journals in English and Spanish from within the context of cultural differences in writing" (p.293). The results show that English paragraphs tend to have a high use of internal coherence as reflected by the repetition of key words and phrases, while Spanish paragraphs seldom use immediate progression as a cohesive device. Similarly, Kawaguchi, Haenouchi, and Ichinose (2010) applied TSA in Japanese EFL writing class. They noticed great improvement in student writing, with regard to clearer focus and better development of subtopics by additional use of constant and linear theme patterns.

In the Philippine setting, relevant studies have been conducted in the comparison of topical progressions within English varieties (e.g. Dumanig, Esteban, Lee and Gan 2009) and the Filipino student academic writing (e.g. Almaden 2006). Dumanig et al. (2009) examined the topical structure of the Philippine and American editorials, and found that both Filipino and American editorial writers achieve internal coherence as reflected in the number of parallel progression, extended parallel progression and sequential progression in every paragraph. The study conducted by Almaden (2006) applied Lautamatti's TSA progressions to 60 paragraphs from the definition essays of Filipino students. Her study aims to discover the types of progressions used by students at the early stage of writing (pre-revision stage) as a diagnostic tool "to observe their natural thought progression and writing patterns" so that teachers would have an idea of what kind of guidance or intervention would be needed by the students. The results show that the order of preferred progression from most to least is parallel progression, extended parallel progression, sequential progression, and lastly extended sequential progression. Almaden (2006) explains that these occurrences mean several things in the light of TSA research. For one, the general results are consistent with Lauttamatti's findings and also Simpson's results for native speaker data. This may mean that Filipinos are trained ESL writers in the American rhetoric because English is mandated to be the other medium for instruction from primary education to tertiary education; however, there are conflicting results of progression preferences within other Filipino corpus. Although Almaden considered her data as inconclusive and possibly not representative of a general population, her data is an empirical evidence of the fact that Filipino student writers use a variety of progressions. To summarize Almaden's last point, this divergence indicates that

Filipinos have mixed preferences for progressions that are based on cognitive and contextual constraints.

## THE PRESENT STUDY

Although studies have been conducted to discuss the use of TSA in analyzing ESL writing in the Philippines, there is no study that looked into the difference of topical progression between essays of different quality (i.e., high-quality vs. low-quality writing) especially among university students. Hence, this paper is primarily aimed at investigating whether high-quality writing differs from low-quality writing in terms of physical structure and preferred topical progression types among university students. Furthermore, it aims to contribute to the discussion on the work done in the Philippines with regard to the use of TSA as a tool in describing, analyzing, and improving students' writing skills, particularly in the ESL writing context.

Specifically, the present paper aims to address the following questions:

- 1) Is there any difference in the physical structure between high- and low-quality writing?
- 2) Is there any difference in the distribution of topical subject between high- and low-quality writing?
- 3) Is there any difference in the topical progression between high- and low-quality writing?

In order to address the research questions, this two-part study follows Simpson's (2000) model. The first part quantitatively describes the physical structure of students' high- and low-quality writing (referred to as *high-* and *low-quality writing* henceforward) as reflected by the number of words, number of clauses and number of sentences in the essays. The second part presents how the topical development is carried out in the high- and low-quality writing as reflected by the use of the parallel progression, sequential progression and extended parallel progression proposed by Lautamatti (1987) and the extended sequential progression added by Simpson (2000). For ease of reading, the definitions and examples of the topical progression types are provided in Methodology.

## METHODOLOGY

### CORPUS

The corpus of the study is composed of 15 high-quality writing and 14 low-quality writing obtained from the following procedures. First, the freshman students of five colleges (i.e. College of Computer Science, College of Education, College of Science, College of Business and College of Liberal Arts) of a private university in Manila enrolled in an English Writing course and their teachers were invited as participants of the study. A total of 242 students' comparison-and-contrast essays were collected, all of which had undergone one revision by the students themselves without teacher editing. Second, the teachers graded the essays in a full score of 50 points based on the rating criteria of the said university. All of the teachers were qualified and had an experience of at least 5 years in teaching the course, which ensured the reliability of their rating. Then a total of 65 essays with a grade of and above 47 (out of 50) were selected as high-quality essays, and 28 essays with a grade of and below 35 out of 50 were categorised as low-quality essays. Third, with systematic random sampling, every fifth essay of the high-quality writing and every second essay of the low-quality writing were

chosen, hence the 15 high-quality sub-corpus (mean = 48.6, range = 47-50) and 14 low-quality sub-corpus (mean = 32.4, range = 29-35). Samples were coded as H1-H15 and L1-L14 respectively. Further examination found that both sub-corpora included essays from all the five colleges of the university. These sampling procedures thus ensured the validity and reliability of the corpus of the study.

#### INTER-CODING

Two researchers of the study worked as the inter-coders, both being PhD students in linguistics with previous experience in Topical Structure Analysis (TSA). The inter-coding agreement reached 85%.

#### METHODS OF PHYSICAL ANALYSIS

Since the teachers' requirement was for students to compose a short piece of writing (referred to as *essay* in the study) and no requirement was made on the number of paragraphs, the entire essays were analysed in the study, be it one-paragraphed or multiple-paragraphed. The physical analysis was conducted by counting the number of words, number of clauses and number of sentences in the essay. Given the fact that ungrammatical sentences might occur in students' writing, it seemed necessary to define the unit *sentence* and *clause* for the purpose of the study. In the coding, a sentence was regarded as a group of words ending with either a full stop or question mark even if it is structurally ungrammatical; a clause was taken as a group of words that include both a subject and a verb, including independent and dependent clauses. See the example below:

*Example 1:* Yes, these two offer different experiences and feelings, but none the less, they both offer happiness, but it will still depends with the person or people living on each of them. (L6)

Regardless of the grammatical and spelling errors, example 1 was coded as ONE sentence since it ended with a full stop. On the other hand, the number of clauses included in example 1 was coded as THREE: the first clause (i.e. "Yes, these two offer different experiences and feelings") as the independent clause and the other two (i.e. "but none the less, they both offer happiness" and "but it will still depends with the person or people living on each of them") as dependent clauses.

#### METHODS OF TOPICAL STRUCTURE ANALYSIS

The topical structure analysis (TSA) in the study is based on the theoretical framework of thematic progression proposed by Lautamatti (1987) and Simpson (2000). Both the topical subject distribution and topical progression types are analysed. The unit of TSA in Lautamatti's study is sentence and in Simpson's study is clause. Given the fact that grammatical errors such as run-on sentences are not rare in novice ESL writing, the present study will follow Simpson's analysis unit: the independent clause, including the simple sentence, the main clause and coordinate clause. Only the topical subjects in the independent clauses were analysed.

According to Lautamatti (1987), each sentence has the initial sentence element (ISE), the mood subject and the topical subject. The ISE refers to "the initially placed discourse material in sentences, whatever its form or type" (p.92). The mood subject is the grammatical subject of the sentence. The topical subject refers to the idea discussed, i.e. what the sentence is about. The three elements may either coincide or separate, and Lautamatti proposes five types of their co-occurrence. In Type 1, all the three elements coincide; in type 2, the ISE is

separate from the mood subject and the topical subject, in which the latter two coincide; in type 3, the ISE coincides with the mood subject but the topical subject is separate; in type 4, the ISE coincides with the topical subject but the mood structure is separate; and in type 5, all the three elements are separate. Lautamatti provides the simplified presentation of the five types as follows:

- Type 1: ISE = topical subject = mood subject
- Type 2: ISE ≠ topical subject = mood subject
- Type 3: ISE = mood subject ≠ topical subject
- Type 4: ISE = topical subject ≠ mood subject
- Type 5: ISE ≠ topical subject ≠ mood subject

Applying the five patterns to the data coding of the study, the examples of each type are offered below (where the ISE is *italicised*, the mood subject is underlined, and the topical subject is **bold-faced**):

*Example 2: Outdoor games* offer a lot of health benefits and also the opportunity to have social interaction and new connections with the people of the same sport. (H9) (Type 1)

*Example 3: However, indoor games* are very limited in terms of advantages compared to outdoor games. (H9) (Type 2)

*Example 4: There are different kinds of dresses* that a woman may wear. (L8) (Type 3)

*Example 5: Although college life has been hell-like*, there you can experience almost everything you haven't experienced in high school. (L9) (Type 4)

*Example 6: Because of this*, it is a lot easier to screw up lead guitar. (H15) (Type 5)

After the topical subjects are identified, the next step (which is also the focus) in the TSA is to plot the topical subjects onto a graph so as to visually present the topical progress (see figure 1). Based on the three types (parallel progression, sequential progression and extended parallel progression) proposed by Lautamatti (1987), Simpson (2000) introduced the fourth type, extended sequential progression. In the parallel progression (PP), two or more consecutive independent clauses share the same topical subjects; in the extended parallel progression (EPP), there is/are intervening independent clause(s) between the independent clauses sharing the same topical subjects; in the sequential progression (SP), the topical subject of one independent clause derives from the rheme element of the previous independent clause; and in the extended sequential progression (ESP), the rheme element of an independent clause is retaken as the topical subject in a non-consecutive independent clause. Applying the four types of topical progression in the data coding of the study, the examples are offered as follows (with topical subject **bold-faced**, retaken rheme as topical subject underlined):

*Example 7:*

- (a) **Expectations** always happen in the midst of uncertainty.
- (b) It is **an individual's belief** that is usually centered on the future that of which may or may not happen.
- (c) In the process of such, there are **2 very different emotions** that may arise once the outcome has presented itself: Disappointment due to lack of fulfillment, or Surprise due to the fruition of the aspiration.
- (d) **The two latter post-expectation emotions**, however, can alter an individual's personality almost completely.
- (e) Robert K. Merton explains **such** in the *Self-Fulfilling Prophecy*.
- (f) If there is a lack of fulfillment in the middle of an expectation's peak, then

**the disappointment** the individual will feel may present itself in extremes, thus lowering self-esteem and self-confidence in almost an instant.  
 (g) Vis-à-vis, if fulfillment exists, **overconfidence and superego** may form themselves in the individual's personality profile. (H10)

The correspondent plot of the progression is shown in Figure 1:

Clause No.	Topical Depth	Topical No.
1	expectations	1
2	an individual's belief	2
3	2 very different emotions	3
4	the two...emotions	3
5	Robert K. M	4
6	the disappointment	5
7	overconfidence...	6

Figure 1 Plot of topical progression of example 7

As can be seen in example 7 and its plot of topical progression in Figure 1, a total of 6 new topics are introduced in the 7 independent clauses. There is one instance of PP (clause 3 and 4 whose topical subjects refer to the same thing) and one ESP (clause 3 and 6, the topical subject of 6 being part of the rheme of 3).

The other two types of topical progression are illustrated in example 8:

Example 8:

- (a) Today, **the most popular social networking** is facebook.
- (b) Nowadays, **facebook** is compared with Friendster.
- (c) **Friendster**, the most popular social networking site before facebook came, looks a lot like its rival now.
- (d) May people say that **the reason** why frienderster was surpassed by facebook with its popularity is the simpler design: therefore making it easier for users, especially elders, to browse the site.
- (e) **Facebook** is also child-friendly because of the free games and enjoyable applications while Friendster was purely for messaging, commenting, and posting on the profile. (L11).

The correspondent plot of the progression is shown in Figure 2:

Clause No.	Topical Depth	Topical No.
1	social networking	1
2	facebook	2
3	friendster	3
4	the reason	4
5	facebook	2

Figure 2 Plot of topical progression of example 8

As presented in example 8 and its plot of topical progression in Figure 2, a total of 4 new topics are introduced in the 5 independent clauses. There is 1 instance of EPP (clause 2 and 5 which share the same topical subject) and 2 instances of SP (clause 1 and 2, and clause 2 and 3, in that the topical subject of clause 2 and 3 are respectively based on the rheme of the previous clause).

## RESULTS AND DISCUSSION

### PHYSICAL ANALYSIS

The physical analysis of the essays yielded unexpected similarities and differences between the high- and low-quality writing. Table 1 presents the physical structure of both sub-corpora in the essay and sentence levels.

TABLE 1. Physical structure of the general data

Physical structure	High quality	Low quality
Total number of words	5,025	3,296
Average words per essay	335	235
Total number of sentences	281	197
Average sentences per essay	18.8	14.1
Average words per sentence	17.9	16.7

As shown in Table 1, the total number of words in high-quality writing is much greater (almost one third greater) than in low-quality writing, which lead to the difference in the average words per essay. Besides, the total number of sentences in high-quality writing is also about one third higher than in the low-quality writing, resulting in the nearly 5-percent difference in the average sentences per essay and the ignorable 1-word difference in the average words per sentence. It would be expected that high-quality writing would differ greatly from low-quality writing in the overall length and number of sentences.

However, t-tests for independent samples by groups show that the assumed differences are not statically significant. There is no significant difference in the total number of words between the high- and low-quality writing,  $t(27)=1.99, p=.057>.05$ ; similarly, there is no significant difference in the total number of sentences between the high- and low-quality writing,  $t(27)=1.75, p=.09>.05$ . Although seemingly unexpected out of the interpretation of Table 1, the t-test results can be attributable to the great variance among the samples in each group: in the total number of words,  $SDH=159$  (mean=335, range=135-676),  $SDL=101$  (mean=235, range=144-485); in the total number of sentences,  $SDH=7.2$  (mean=18.8, range=6-31),  $SDL=7.1$  (mean=14.1, range=7-33). Both high- and low-quality writing can be either very long or rather short. Therefore, there is no direct relationship between the quality of the writing and the total number of words in the essay and total number of sentences in the essay.

Table 2 presents the physical structure of the essays in the clause level.

TABLE 2. Physical structure of the clause data

Physical structure	High quality	Low quality
Total number of words	564	366
Average clauses per essay	37.6	26.1
Average clauses per sentence	2.0	1.9
Average words per clause	8.9	9.0

In Table 2, the total number of clauses in high-quality writing is about one third greater



than in the low-quality writing, hence the difference in the average clauses per essay. On the other hand, the difference in the average clauses per sentence and the difference in the average words per clause are rather slight because of the difference in the total number of the sentences and the difference in the total number of words in Table 1. It would be expected that high-quality writing would contain more clauses than low-quality writing and there would be neither difference in the average clauses per sentence nor difference in the average words per clause. T-tests for independent samples by groups supported the above assumptions. It is confirmed that only the difference in the total number of clauses in each essay is statically significant,  $t(27)=2.51$ ,  $p=.018<.05$ , while other differences are not statistically significant.

In summary, the comparative analysis of the high- and low-quality writing reveals both the difference and similarities in the physical structure. First, the high-quality writing seems to contain more clauses than the low-quality writing. Second, there is no evidence to claim that the length (i.e. number of words) of the essay, the sentence or the clause is directly related to the quality of the writing. Third, there is no evidence to claim that the number of clauses in the sentence is linked to the quality of the writing, i.e. the sentence in high-quality writing does not generally contain more (or less) clauses than the sentence in low-quality writing.

#### TOPICAL STRUCTURE ANALYSIS

Based on the intercoding of the data, results of the topical subject distribution and topical progression types are presented in the Tables and tests are applied to determine the difference. Table 3 summarises the five types of the topical subject distribution.

TABLE 3. Co-occurrence of sentence elements

	High quality		Low quality	
	Number	Percent(%)	Number	Percent(%)
Type 1	106	56.4	107	56.6
Type 2	40	21.3	42	22.2
Type 3	4	2.1	7	3.7
Type 4	3	1.6	6	3.2
Type 5	35	18.6	27	14.3
Total	188	100	189	100

The frequencies in Table 3 shows that the most common co-occurrence in both high- and low-quality writing is type 1, followed by type 2 and type 5. Between the high- and low-quality writing, the difference in type 1 is slight, and so is that in type 2; however, it seems hard to determine if the differences in type 3, type 4 and type 5 are respectively remarkable. The two-proportion z-tests show no significant differences (at the significance level of .05) in the five types between the high- and low-quality writing yet significant differences between type 1 and the other 4 types and between type 2 (type 5) and type 3 (type 4).

According to the results, both high- and low-quality writing share the similar preference for type 1 (ISE=TS=MS), type 2 (ISE≠TS=MS) and type 5 (ISE≠TS≠MS); in contrast, type 3 (ISE=MS≠TS) and type 4 (ISE=TS≠MS) are least adopted patterns. There, it may be inferred that Filipino ESL university students prefer the patterns where the topical subject and the mood subject coincide and the pattern where all three elements are separate. Given that the mood subject occupies a salient position in the independent clause, it seems that these students prefer a direct way of introducing topics by coinciding the topical subject with the mood subject.

Table 4 presents the topical development of the 15 high-quality writing.

TABLE 4. Topical development in high-quality writing

ID No.	Independent clauses	New topics	PP	EPP	SP	ESP
H1	11	7	3	1	5	0
H2	21	13	4	4	9	0
H3	20	4	11	1	2	0
H4	26	15	3	6	9	0
H5	24	10	5	9	9	1
H6	11	6	3	1	2	0
H7	5	4	0	1	3	0
H8	14	6	4	1	7	0
H9	12	3	2	4	0	0
H10	7	6	1	0	0	1
H11	13	5	3	4	0	1
H12	9	3	3	3	0	1
H13	12	10	2	0	3	0
H14	10	5	2	2	0	0
H15	12	3	2	3	1	0
Total	207	100	48	40	50	4

As can be seen in Table 4, all essays have some kind of topical reoccurrence, which indicates the attempt to create coherence by repeating topics in high-quality writing. Table 5 presents the topical development of the 14 low-quality writing.

TABLE 5. Topical development in low-quality writing

ID No.	Independent clauses	New topics	PP	EPP	SP	ESP
L1	20	9	4	2	4	0
L2	15	7	4	4	6	0
L3	10	8	0	2	6	0
L4	14	8	2	3	1	0
L5	10	7	2	0	5	0
L6	12	6	3	2	4	0
L7	13	6	3	4	4	1
L8	14	10	0	4	2	0
L9	13	11	1	1	1	3
L10	16	7	4	4	1	2
L11	11	8	0	3	2	0
L12	10	8	1	0	0	0
L13	11	9	1	1	0	0
L14	11	8	2	2	0	2
Total	180	112	27	30	36	6

Table 5 shows that all the low-quality essays use some kind of topical progression, as is the case in the high-quality essays. Thus, there is also an attempt to create coherence by repeating topics in low-quality writing. Table 6 summarises the introduction of new topics in the writing.

TABLE 6. Comparative summary of new topics

	High-quality		Low-quality	
	Number	Percent (%)	Number	Percent (%)
Independent clauses	207		180	
New topics	100	48.3	112	61.1

It can be seen in Table 6 that over 60 percent of independent clauses in the low-quality writing introduce new topics and the figure in high-quality writing is less than 50 percent. Two-proportion z-test shows that the difference is significant,  $p=.012 < .05$ . Therefore, it may be inferred that low-quality writing tends to introduce more new topics in the independent

clauses than high-quality writing. The types of topical progression are summarised in Table 7.

TABLE 7. Comparative summary of topical progressions

	High-quality		Low-quality	
	Number	Percent (%)	Number	Percent (%)
PP	48	33.8	27	27.2
EPP	40	28.2	30	30.3
SP	50	35.2	36	36.4
ESP	4	2.8	6	6.1
Total progression	142	100	99	100

Table 7 shows the similarity between the high- and low-quality writing in the application of PP, EPP and SP. In contrast, Table 7 presents that while the differences among the PP, EPP and SP are not remarkable, the ESP is notably the least adopted type. Two-proportion z-tests at the significance level .05 confirm these inferences. Therefore, two tendencies can be seen in the essays. First, it seems that there is no difference in the topical development between high- and low-quality writing. Second, generally, PP, EPP and SP tend to be applied in similar frequencies.

Interestingly, findings of the present study resonate with the findings of some studies (Liangprayoon, Chaya, & Thep-ackraphong, 2013; Almaden 2006; Carreon, 2006; Simpson, 2000; Schneider & Connor, 1990; Connor & Farmer, 1990) where presence or use of topical progressions is highly evident in the students' writings.

Noteworthy, however, is the fact that compared to Almaden's (2006) findings, the present study registered a remarkable decrease in the use of PP (51.8% vs. 33.8%) and a remarkable increase in SP (17.4% vs. 35.2%) despite the similarities in the participants' demographical profile (from same University and at the same level of language proficiency). This contrast could be attributed to the difference in genre or text type used in writing: extended definition essay vs. comparison-and-contrast essay for the present study. Ghabanchi and Alavi (2011, in Liangprayoon, Chaya, & Thep-ackraphong, 2013) "found in their study this relationship between text type and topical progression used" (p. 65).

Accordingly, the use of ESL students' comparison-and contrast essays as investigated in this study may have played a significant part in the employment of sequential progression as a demonstration of topical progression because students are expected to point out the similarities and differences of two items on the basis of at least three points. Finally, Oshima and Hogue (2006, in Liangprayoon, Chaya, & Thep-ackraphong, 2013) argued that "when writers write expository essays (which includes compare-contrast essays, parenthetical note supplied), they develop their ideas in the essays by adding details and giving examples of the topics they discuss" (p. 66).

## CONCLUSION

It appears that there is no significant difference between the high- and low-composition comparison-and-contrast essays of the freshman college students in terms of topical structure. This may be attributed to the fact that in comparison-and-contrast essays, how topics are arranged in clausal sequence are highly predictable in the sense that both topic and clausal arrangement lend themselves to restrictions by the parameters of the fixed communicative goal of having to compare and contrast two entities, whether the subjects are comparison of gender traits, comparison of two cultures, or comparison of areas of study and so on.

If the primary function of TSA is to be able to make a meaningful interpretation of the progressions in relation to establishment not only of coherence but of the meaning of the

discourse itself, then every pattern of progression that may occur in a specific setting may be said to be a cultural practice. The pronounced similarity in topical progression and sentence elements between the two groups of research participants reveal that in this cultural context, topical structure may be ruled out as a cause for satisfactory or poor performance in student essay writing. Based on the two-proportion z-test applied in the student corpora, it may be inferred that low-quality writing tends to introduce more new topics in the independent clauses than high-quality writing. TSA allowed this specific feature to surface which may mean that a correlation between topical surfeit and coherence may exist because the overload of topic sequencing may result to the disorientation of the reader as to the main focus of the essay.

Previous studies on topical structure that uses Philippine corpora have shown that there are variations of progression occurrence across different genres, communicative purposes, and research areas. This means that for each set of corpus, topical clause sequencing as well as sentence elements (ISE, mood subject, topical subject) reveal the relationship not only between topical structure and the logical presentation of ideas, but also meaning. In the present study, the common feature in low-quality essays is the occurrence of topical surfeit which may mean that an imbalance in the coherence structure of texts has taken place. In turn, this occurrence may lead to the lack of clarity of meaning and purpose of the compositions.

Based on these findings, an integrated method may also be applied for future research in TSA studies, where the researcher examines TSA in relation to other linguistic (grammar, vocabulary, mechanics) and discoursal (depth of analysis, range of ideas, etc), and even extra-linguistic features (values and beliefs) that contribute to the overall student writing performance.

#### REFERENCES

- Almaden, D. O. (2006). An analysis of the topical structure of paragraphs written by Filipino students. *The Asia-Pacific Education Research*, 15(1), 127-153.
- Carreon, M.E.C. (2006). Unguarded patterns of thinking: Physical and topical structure analysis of student journals. *The Asia-Pacific education research*, 15(1), 155-182.
- Connor, U., & Kaplan, R. B. (1987). *Writing across languages: Analysis of L2 text*. Reading, MA: Addison-Wesley.
- Connor, U., & Farmer, M. (1990). The teaching of TSA as a revision strategy for ESL writers. In B. Kroll (Ed.), *Second language writing: research insights for the classroom* (pp. 126-139). Cambridge: Cambridge University Press.
- Connor, U. (1996). *Contrastive Rhetoric: Cross-cultural Aspects of Second Language Writing*. Cambridge: Cambridge University Press.
- Dumanig, F. P., Esteban, I. C. Lee, Y. P., Gan, A. D. (2009). Topical structure analysis of American and Philippine editorials. *Journal for the Advancement of Science and Arts I*(1), 63-71.
- Ghabanchi, Z., & Avali, S. Z. (2011). The relationship between types of paragraphs and topic progression used in paragraphs written by Iranian EFL students. *Journal of International Education Research-Fourth Quarter*, 7, 39-46. In S. Liangprayoon, W. Chaya, & T. Thep-ackraphong, (2013). The effect of topical structure analysis instruction on university students' writing quality. *English Language Teaching*, 6(7), 60-71.
- Jonassen, D. H. (1991). Objectivism versus constructivism: Do we need a new philosophical paradigm? *Educational Technology Research and Development*, 39(3), 5-14.
- Kawaguchi, K., Haenouchi, H., & Ichinose, S. (2010). Thematic structure analysis of Japanese advanced EFL college student writing. In A. M. Stoke (Ed.), *JALT2009 Conference Proceedings*. Tokyo: JALT.
- Lautamatti, L. (1987). Observations on the development of the topic in simplified discourse. In U. Connor & R. B. Kaplan (Eds.), *Writing Across Languages: Analysis of L2 Texts* (pp. 87-114). Reading, MA: Addison-Wesley Publishing Company Inc.
- Liangprayoon, S., Chaya, W., & Thep-ackraphong, T. (2013). The effect of topical structure analysis instruction on university students' writing quality. *English Language Teaching*, 6(7), 60-71.
- Matsuda, P. K. (2001). On the origin of contrastive rhetoric: A response to "The Origin of Contrastive Rhetoric Revisited" by H. G. Ying (2000). *International Journal of Applied Linguistics*, 11, 257-260.

- Oshima, A., & Hogue, A. (2006). Introduction to academic writing (3rd ed.). New York, NY: Longman. In S. Liangprayoon, W. Chaya, & T. Thep-ackraphong, (2013). The effect of topical structure analysis instruction on university students' writing quality. *English Language Teaching*, 6(7), 60-71.
- Silva, T. (1990) Second language composition instruction: developments, issues, and directions in ESL. In B. Kroll (Ed.), *Second language writing: research insights for the classroom* (pp. 11-23). Cambridge: Cambridge University Press.
- Simpson, J. M. (2000). Topical structure analysis of academic paragraphs in English and Spanish. *Journal of Second Language Writing*, 9(3), 293-309.
- Sommers, N. I. (1978). Revision in the composing process: A case study of experimental writers and student writer. Unpublished doctoral dissertation, Boston University. In B. Kroll (Ed.), *Second language writing: research insights for the classroom* (pp.126-139). Cambridge: Cambridge University Press.
- Zamel, V. (1983). The composition processes of advanced ESL students: Six case studies. *TESOL Quarterly* 17, 165-187.