A Corpus-Based Study of the Use of Temporal Markers in English Writing of Thai EFL Writers

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Abstract

The current study aimed to investigate the tendency to use temporal markers (TMs) in English writing by three different levels of Thai writers. Data used in this study were based on the Corpus of Thai Writers of English. The corpus size of approximately 8,800,000 words consisted of essay writing produced by intermediate and advanced student writers and professional writers from two Thai English newspapers. Fraser's (2005) taxonomy of temporal markers was used as an analytical framework. Microsoft Excel was used to calculate the frequency of occurrences, while a Statistical Package for the Social Sciences (SPSS) was the primary research tool for data analysis. A one-way ANOVA reveals a statistical difference in the use of TMs among three groups of writers (p = .000). The intermediate and professional writers were found to prefer using temporal markers at a comparable ratio. However, the intermediate group used temporal markers in a more diverse attitude than the advanced ones. Six temporal markers (as soon as, immediately, meantime, meanwhile, originally, and subsequently) were hardly utilized in writing by all groups of writers. However, no significant differences were found regarding preferences on the position of the TM in the sentences. The findings improve teaching and learning of cohesive devices, especially temporal markers, in EFL writing classes.

Keywords: Thai EFL writers, English writing, temporal markers, discourse markers

1. Introduction

English has become an international language for global communication. People from all over the world, regardless of nationality, need to know and use English to communicate in a global arena. Therefore, the issues of learning and teaching the English language have been the focus of attention to many applied linguists. Numerous studies have been conducted to find pedagogical solutions to the encountered problems in this field. However, not all problems have been solved; many issues still have been unseen and need to be uncovered. In Thailand, for example, English is not an official language but plays an essential role in international communication. English is a mandatory subject taught at schools and universities all over the country. However, Education First (2021) reported that the English proficiency score among Thai EFL writers was at a deficient level, ranked 100 out of 112 participating countries for the index. Even though several research studies have been done related to the problem of Thai EFL writers' speaking; however, few of them investigated related to the writing problem of students. Writing is regarded as one of the most challenging skills for them to acquire compared to other language skills (Pongkasempongon & Manosuthikij, 2019; Arya, 2020). Nunan (1989) claims that writing is a highly strenuous activity since it requires the writers to control various factors ranging from personal interest to psychological, linguistic, and cognitive phenomena. Effective and qualified writing is required to be structured, cohesive, logical, engaging, and consume a wide range of vocabulary (Hall, 1988). Therefore, most students face difficulties in learning writing. However, writing ability is an essential skill in guaranteeing the academic success of EFL students (Suleiman, 2000) as they are typically required to do quite a few written works such as assignments, term projects, and written reports. As those academic tasks require qualified and standardized writing, students need to have good writing.

Poor writing, however, can significantly affect their academic success. For instance, if their writing product is poor in quality, the meaning or message they want to convey can be lost or misleading. As a result, the competency can be below as well. One common writing issue among Thai EFL writers is the inappropriateness of using temporal markers. The temporal markers are regarded as indicators of proficiency and quality of language products (Azadi

& Chalak, 2017). Proficient writers generally employ temporal markers appropriately to coherent their writing product (Rahimi, 2011). They create the cohesiveness, coherence, meaning, and understandability of the text.

The text's coherence is very helpful for the readers or listeners to interpret the message effectively. It shows the connection or logical relation between the sentences and paragraphs between the previous one and the next one. Connectivity facilitates the audience in the interpretive process (Blackmore, 1987). The scarcity or inability of using temporal markers (such as *first, second, then, after*) can affect the quality and the compression of writing text. Impropriate using these signaling markers, the connectivity or continuity of the text will lose, and the text's coherence will be affected. Although several numbers of previous researches have been conducted focusing on discourse markers (DMs), little research concentrated on the study of temporal markers in the writing of EFL writers. As aforementioned, temporal markers are significant elements in students' writing. Therefore, the current student aims to examine the use of those markers in Thai EFL students' writing by employing the corpus approach.

The current study aims to investigate the use of temporal markers and examine the effect of writing quality as a result of using temporal markers in English writing among the Thai EFL writers from two different universities, University A and University B, and professional writers from two English newspapers (The Nation and Bangkok Post). They are classified into three proficiency levels: intermediate writers, advanced writers, and professionals. The purpose of the study is to answer three research questions as below:

- 1) Is there any significant difference in terms of frequency between each level of proficiency in the use of temporal markers in their English writing?
- 2) What temporal markers are most frequently used in each group of writers?
- 3) What are the frequent positions of temporal markers used in English writing? How does the position of temporal markers affect the writer's level of proficiency?

2. Literature Review

The result of corpus analysis, as well as experimental research, revealed that writers and speakers employ linguistic devices such as punctuation, referential and temporal expressions to indicate theme shift in discourse (Besttgen & Costermans, 1994; Chanyoo, 2013; Fayol & Abdi, 1988; Peterson & McCabe, 1991; Segal, Duchan, & Scott, 1991; Vonk, Hustinx, & Simons, 1992). These devices express the connectivity between the initial segmentation and the new segmentations. On the other hand, the temporal markers are used by speakers and writers to show the temporal relationship between sequential events.

Fraser (2005) categorized the temporal class of pragmatic markers as a subclass of discourse markers. However, Fraser (2009), in his classification of discourse markers, excluded the temporal class by claiming that discourse markers (DMs) should only reflect the semantic relationship between discourse segments. So, according to Fraser's 2009 taxonomy, there are only three classifications of discourse markers such as **elaborative discourse** markers or EDMs (above all, and, also, after all, alternatively, by some token, besides, correspondingly, for instance, for example, equally, furthermore, in other words, in addition, in particular, more accurately, likewise, more importantly, more to the point, more precisely, moreover, on top of it, on that basis, or, instead, otherwise, that is so say, simply), contrastive discourse markers or CDMs (alternatively, but, although, contrary to expectations, contrariwise, despite (this/that), conversely, even so, in spite of (this/that), however, notwithstanding, on the contrary, on the other hand, rather (than, this/that), still, regardless of (this/that), though, yet, whereas), and inferential discourse markers or IDMs (as a conclusion, so, all things considered, as a consequence of (this/that), as conclusion, as a result of (this/that), consequently, because of (this/that), for (this/that) reason, it follows that, hence, accordingly, on (this/that) condition, in (this/that) any case, in (this/that) regards, therefore, then, thus). However, TMs are a vital element in writing products. They are worthy of being conducted research. Temporal markers include first, second, finally, then, after, before, as soon as, eventually, immediately, meantime, meanwhile, afterward, originally, and subsequently (Fraser, 2005, p. 197).

A few studies have been conducted concerning investigating temporal markers in English writing. For example, Bestgen & Vonk (1995) studied the role of temporal markers in discourse processing. The findings of three studies suggested that temporal markers influence the availability of preceding words. They are used to show the thematic change or signal the ordering or continuity in the narrative event. Eman & Radwan (2016) investigated discourse markers in writing by EFL students at the University of Jordan. The subjects were required to write an expository essay, in which they needed to discuss and suggest the solutions for three problems that they faced at the University of Jordan. Their study relied on Fraser's (2009) taxonomy to investigate the targeted Discourse markers (CDMs, EDMs, IDMs, and TDMs). The comparative analysis between the levels of proficiency revealed that EFL writers' level of proficiency significantly affects the discourse markers in their writing. The advanced and

intermediate EFL students used discourse markers at a comparable rate in their essays. The lower proficient students were observed to use discourse markers more restrictedly than those of higher proficiency. In addition, the intermediate writers used more abundant discourse markers of syntactic categories in writing than advanced group.

Additionally, the results indicated that advanced writers employed temporal markers such as first, finally, eventually, still, consequently, therefore, nonetheless, moreover, and however more frequently than the intermediate writers 'essay writing. Similarly, Azadi & Chalak's (2017) study of the composition of 150 writing by pre-intermediate, intermediate, and advanced writers. They found that the lower proficiency levels tend to utilize more micro markers (additional, casual, contrastive, and consecutive markers) in writing than those higher levels of proficiency. However, the analysis revealed that they could not use them appropriately as compared to those with a higher level of proficiency. The results indicated that the quality of writing is developed through the appropriate use of DMs. Rahimi (2011) conducted a study to investigate the use of DMs by Iranian EFL students by following Fraser's (1999) taxonomy of DMs. The researcher analyzed the use of DMs in expository and argumentative essays written by a sample of 56 Iranian EFL students. In the study, the researcher reported no significant relationship between the uses of DMs with the quality of essay writing. She concluded that the use of DMs is not a predictor of writing quality (Rahimi, 2011, p. 74). Contrastingly, Martinez (2004) revealed a positive relationship between students' writing production qualities with the variety of DMs that they employed. Highly rated essays were found to use more elaborative, inferential, and contrastive discourse markers in their writing composition. Eman & Radwan (2016) analyzed the use of discourse markers in the expository essay writing of Jordanian students of three different proficiency levels. They concluded that advanced writers tend to employ temporal markers in the initial position of the sentence at a higher ratio than those of intermediate writers. However, intermediate writers tend to employ these markers in the middle position of the sentence more frequently than advanced writers do. It can be drawn from the findings that the tendency in the positions of the use of TMs in sentences is somehow affected by the level of proficiency of the writers. Tawilapakul (2003) studied the error in English tense in a translation test and short paragraph writing. The outcomes showed that the error with the use of time markers among Thai students primarily resulted from the negative transfer of time markers in Thai to the use of time markers in English tense.

Despite the use of temporal markers that have been conducted in some research, the trend of their usage and the effect of their positions in English writing of Thai EFL students, however, have never been investigated. Therefore, the current study intends to examine the use of TMs in Thai EFL writers at three different levels of proficiency.

3. Methodology

3.1 Sample Data

The primary data used in this research study were based on the Corpus of Thai Learners of English of the Faculty of Arts of one university in Thailand. It is a collection of English essay writing produced by Thai undergraduate writers, categorized into two levels (intermediate and advanced), from University A and University B. The corpus size is about 8,800,000 words, consisting of 1,538 essays (542,000 words) from undergraduate students of University B and 1,282 essays (338,000 words) from University A. The UA intermediate students are from the Faculty of Arts in the English department, while UB intermediate students are from various faculties. The student writers at an advanced level, on the other hand, are second-year students, whose major is English, in the Faculty of Arts. The corpus size of advanced writers is about 66,000 words, consisting of 54 essays. The corpus includes the English writings of Thai journalists (professionals) from two different English newspapers, namely The Nation and the Bangkok Post. This corpus size was 294,000 words, consisting of 2,739 essays. Five hundred writing samples from each level of proficiency were randomly selected by Thai English learner concordance and analyzed.

Table 1. The corpus used in the study

Level of proficiency	Origins	No of essays	No of words
Intermediate	1st-year student (UA, UB)	1,820	8,800,000
Advanced	2 nd -year student (UA, UB)	54	66,000
Professional	The Nation, Bangkok Post	2,739	294,000
Total		4,613	9,160,000

3.2 Analytical Framework

The current study analyzed the use of temporal markers in English writing retrieved from the Thai writers of English corpus. The temporal markers are based on Fraser's (2005) classification of DMs. So, the researcher

analyzed temporal markers such as *first*, *second*, *finally*, *then*, *after*, *before*, *as soon as*, *eventually*, *immediately*, *meantime*, *meanwhile*, *afterward*, *originally*, and *subsequently* (Fraser, 2005, p. 197).

3.3 Data Analysis

In corresponding to those questions, the targeted temporal markers including *first, second, finally, then, after, before, as soon as, eventually, immediately, meantime, meanwhile, afterward, originally,* and *subsequently* were analyzed within the essay writing based on three criteria. The first is to find the significant difference between each level of proficiency in the use of temporal markers in their writing. The frequency of occurrence of each temporal marker is counted manually and then operated by SPSS. One-way ANOVA was utilized to find the mean score of all proficiency levels, and then those mean scores were compared for differences. The second was to find the temporal markers that are most frequently used in each level of proficiency. The frequency of occurrence of each temporal marker was counted separately among each level of proficiency and then ranked by Microsoft excel to find out the ratio of use. The third was to observe the position of each temporal marker that was mainly used in the essays. The frequency of position of temporal markers that occurred in the essays was counted and converted into percentages manually and individually to find the occurrence ratio. A post hoc test on one-way ANOVA was used to do the multiple comparisons or cross-comparisons among the three proficiency levels.

4. Results

4.1 The Significant Differences between the Uses of Temporal Markers in English Writing among Each Level of Proficiency

Table 2. Means and the frequency of temporal markers used in English writing in each level of proficiency

TMs	Intermediate Writers	Advanced Writers	Professional Writers		
	f	f	f		
then	125	64	500		
after	137	56	500		
as soon as	3	5	71		
before	69	80	500		
eventually	3	3	149		
finally	41	18	145		
first	196	51	500		
immediately	9	7	140		
afterwards	5	1	17		
meantime	0	0	19		
meanwhile	1	0	307		
originally	1	0	36		
second	55	20	500		
subsequently	0	0	15		
when	500	105	500		
Total	1145	410	3899		
Mean	76.33	27.33	259.93		

A one-way ANOVA analysis revealed a statistical difference in the use of TMs at each level of proficiency [F] (10.379, p =.000)]. 1,145 temporal markers (M= 76.23) were employed in the English writing by intermediate writers, 3,899 temporal markers (M= 259.93) were employed by professionals, and however, only 410 temporal markers (M= 27.33) were used in writing by the advanced writers. Table 2 also revealed that the frequency of tokens (as soon as, immediately, meantime, meanwhile, originally, and subsequently) among the intermediate and advanced writers had a comparable rate. Both groups of proficiency students never or rarely use those temporal markers in their writing. However, the frequency of occurrence of these temporal markers is remarkably high in the writing of professional level.

4.2 The Temporal Markers Frequently Used by Each Proficiency Level

It can be seen from Table 3 that the most frequently used temporal marker in the intermediate students is "when" (123 occurrences) followed by "before" (69 occurrences), "second" (55 occurrences), "finally" (41 occurrences),

"immediately" (9 occurrences), "afterwards" (5 occurrences), "as soon as, eventually" (3 occurrences equally), "meanwhile, originally" (1 occurrence equally). However, "meantime" and "subsequently" are never used by this proficiency level of students.

Table 3. The rank of most frequencies of each temporal marker occurred in the intermediate students' writing

TMs	f	
when	500	
first	196	
after	137	
then	125	
before	69	
second	55	
finally	41	
immediately	9	
afterwards	5	
as soon as	3	
eventually	3	
meanwhile	1	
originally	1	
meantime	0	
subsequently	0	

Table 4 indicates the rank of advanced writers using temporal markers in English writing. It is apparent from this number that, similar to the trend among intermediate writers, the top most frequently used temporal markers among the advanced groups is "when" (105 occurrences), followed by "before" (80) occurrences, "then" (64 occurrences), "after" (56 occurrences), "first" (51 occurrences), "second" (20 occurrences), "finally" (18 occurrences), "immediately" (7 occurrences), "as soon as" (5 occurrences), "eventually" (3 occurrences), "afterwards" (1 occurrence), and "meanwhile, meantime, originally, subsequently" (0 occurrence equally). Four temporal markers are never used by this learner group, such as "meantime," "meanwhile," "originally," "subsequently". Noticeably, the advanced writers tend to decrease the use of temporal makers in their writing haft-time ratio compared with the trend in the intermediate writers.

Table 4. The rank of most frequencies of each temporal marker occurred in the advanced students' writing

TMs	f	
when	105	
before	80	
then	64	
after	56	
first	51	
second	20	
finally	18	
immediately	7	
as soon as	5	
eventually	3	
afterwards	1	
meantime	0	
meanwhile	0	
originally	0	
subsequently	0	

Table 5 shows the frequency of temporal markers that occurred in professional writing. It reveals that "then, after, before, first, second, when" (500 occurrences equally) are the top most frequently used, and then are followed by

"meanwhile" (307 occurrences), "eventually" (149 occurrences), "finally" (145 occurrences), "immediately" (140 occurrences), "as soon as" (71 occurrences), "originally" (36 occurrences), "meantime" (19 occurrences), "afterwards" (17 occurrences), and "subsequently" (15 occurrences). It can be concluded from the figure that even though the frequency of temporal markers decreases at the advanced level, it increases sharply at the professional level.

Table 5. The rank of most frequencies of each temporal marker occurred in the professionals' English writing

TMs	f
then	500
after	500
before	500
first	500
second	500
when	500
meanwhile	307
eventually	149
finally	145
immediately	140
as soon as	71
originally	36
meantime	19
afterwards	17
subsequently	15

4.3 The Frequent Position of Each Temporal Marker in Each Level of Proficiency

4.3.1 The Position of TM "Then"

A post hoc test on one-way ANOVA reveals the cross-comparison among each writer type in the tendency of the position of TMs in sentence writing. The analysis by one-way ANOVA shows no significant difference in the use of TMs in both initial [F (3.017, p=.060)] and final [F (1.821, p=.174)] positions by all types of writers (p > .05). They share a common tendency to use TMs, both initial and final positions, in their writing. However, as compared, there is a significant difference in the use of TMs in the initial position between the advanced and professional writers (p=.018).

Table 6. The percentage of frequency of each position of each TM in each learner's writing

TMs	Intermediate Writers			Advanced Writers			Professional Writers		
	Initial %	Middle %	Fina l%	Initial %	Middle %	Final %	Initial %	Middle %	Final %
then	35.2	<u>62.4</u>	2.4	31.3	<u>68.8</u>	0.0	18.6	<u>78.8</u>	2.6
after	48.9	<u>51.1</u>	0.0	33.9	<u>66.1</u>	0.0	17.6	<u>82.0</u>	0.4
as soon as	<u>66.7</u>	33.3	0.0	20.0	80.0	0.0	7.0	<u>93.0</u>	0.0
before	14.5	<u>66.7</u>	18.8	2.5	<u>80.0</u>	17.5	6.2	<u>88.2</u>	5.6
eventually	33.3	<u>66.7</u>	0.0	0.0	100.0	0.0	5.4	<u>91.9</u>	2.7
finally	<u>73.2</u>	26.8	0.0	44.4	<u>55.6</u>	0.0	26.2	<u>73.8</u>	0.0
first	19.9	<u>75.5</u>	4.6	13.7	<u>70.6</u>	15.7	5.4	<u>92.8</u>	1.8
immediately	0.0	<u>55.6</u>	44.4	0.0	<u>85.7</u>	14.3	2.9	<u>87.1</u>	10.0
afterwards	100.0	0.0	0.0	0.0	100.0	0.0	23.5	<u>41.2</u>	35.3
meantime	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<u>94.7</u>	5.3
meanwhile	0.0	100.0	0.0	0.0	0.0	0.0	<u>76.9</u>	23.1	0.0
originally	0.0	100.0	0.0	0.0	0.0	0.0	11.1	<u>86.1</u>	0.0
second	20.0	80.0	0.0	15.0	<u>75.0</u>	10.0	6.8	<u>92.2</u>	1.0
subsequently	0.0	0.0	0.0	0.0	0.0	0.0	6.7	93.3	0.0
when	37.2	<u>62.8</u>	0.0	20.0	<u>80.0</u>	0.0	37.4	<u>62.6</u>	0.0

Note: the underlined numbers denote highest percentage of TM position in each group of writers

Contrastively, the results show that all the writers have different tendencies in using TMs in the middle position of the sentence. The cross-comparisons reveal a significant difference in the use of TMs in the middle position between the intermediate and the professional writers (p= .001) and the advanced and the professional writers (p= .000). However, it also reveals no significant difference between the intermediate and advanced writers (p= .523). Both groups have a very similar tendency in using TMs in the middle position of sentences in their writing.

Table 6 revealed that the intermediate (35.2%) and advanced writers (31.3%) tend to use *them* in the initial position of the sentences at a comparative percentage of frequency. However, the professional groups do not prefer to use this marker in the initial position, as the figure shows that they use only 18.6%. Similar results were also found in the middle position. The figure revealed that immediate (62.4%) and advanced (68.6%) writers comparatively use this marker in the middle position. Contrastingly, the professionals tend to employ this marker at the highest percentage (78.8%) in the middle position of the sentences. Surprisingly, this mark is not popularly used in the final position of the sentences by the three levels of writers. As shown, the immediate writers employ 2.4%, the professionals 2.6%, and the advanced writers never use this marker in the final position. It can be implied from the overall findings that *then* is commonly used in the initial and middle parts of the sentence, but it is rarely used in the final position.

4.3.2 The Position of TM "After"

The results show that the intermediate writers frequently use *after* in the initial position of the sentences at the highest frequency (48.9%), while advanced writers use 33.9% and the professional only 17.6%. All proficiency levels were found to most frequently use this marker in the middle position of the sentences in their writing. As shown, the professionals employed in this position at the highest frequency (82%) followed by advanced writers (66.1%) and intermediate writers (51.1%). Additionally, all proficiency levels do not use this marker in the final part of the sentences in their writing. As shown (Table 6), the percentage of frequency in the final is relatively low in all proficiency levels. The results implied that *after* is generally used in the initial and middle sections, but it is never used in the final section of the sentences.

4.3.3 The Position of TM "As Soon As"

The results indicated that the intermediate writers most frequently use as soon as in the initial position of the sentences (66.7%). However, the higher levels were found to use this marker less frequently as shown for the advanced writers (20%), and the professionals (7%). The contrastive results revealed that higher proficiency levels tend to locate this marker in the middle of the sentence (i.e., advanced writers 80%, professionals 93%), while the intermediate writers use in this position only 33.3%. It can be interpreted from this trend that as soon as is commonly used in the initial position by lower proficiency writers. In contrast, it is frequently used in the middle of the sentences by the higher proficiency students. However, this marker is never used in the final section of the sentence by all proficiency levels since it is not grammatically correct.

4.3.4 The Position of TM "Before"

According to the figure, *before* is not commonly used in the initial position by all the proficiency levels of writers compared with the other employed position of the sentences. However, it was indicated that the lower proficiency writers tend to use this temporal marker in the initial position than the higher proficiency writers as the intermediate writers (14.5%) followed by the professionals (6.2%) and the advanced writers (2.5%). Additionally, it is found that the advanced writers (80%) and the professionals (88.2%) tend to use this marker in the middle of the sentences at a higher, comparative frequency. A lower frequency is found in the intermediate writers (66.7%). Even though it is rarely used in the final position of the sentences, it can be drawn from the results that the lower proficiency writers tend to use this marker in the final position at a higher frequency than the higher proficient writers. Thus, it can be translated from the finding that *before* is frequently located in the initial and final position by the lower proficient students, while it is most frequently located in the middle by the higher proficient students.

4.3.5 The Position of TM "Eventually"

It is indicated from the results that the intermediate writers most frequently use *eventually* in the initial position of the sentences compared with the advanced writers (0%) and professionals (5.4%). However, the result is contrastive that this marker is most frequently used in the middle of the sentences by the higher level of proficiency. As shown, the professionals use in the middle (91.9%), the advanced writers (100%), and intermediate writers only (66.7%). It also revealed that this temporal marker is rarely located in the final position of the sentences by every level of proficiency. Overall, it can be interpreted from the results that *eventually* is frequently located in the initial

part of the sentences by lower proficient writers. In comparison, it is frequently located in the middle of the sentences by higher proficient writers.

4.3.6 The Position of TM "Finally"

It is indicated from the figure that *finally* is most frequently used in the initial position of the sentences by the intermediate writers (73.2%) followed by the advanced writers (44.4%) and professionals (26.2%). Contrastively, it is most frequently located in the middle position by the higher level of proficiency, as revealed the professionals (73.8%) followed by advanced writers (55.6%) and intermediate writers (26.8%). However, it is shown that this temporal marker is never used in the final position of the sentences by every proficient level of students. It can be implied from the finding that the lower proficient writers tend to locate *finally* in the initial section. In contrast, the higher proficient writers tend to locate this marker in the middle of the sentences. However, this temporal marker is not popularly located in the final position of the sentences in writing.

4.3.7 The Position of TM "First"

The corpus revealed that even though it is not popularly used in the initial position, temporal marker *first* is most frequently used in this position by a lower level of proficiency. As clearly shown, the intermediate writers used 19.9%, followed by advanced writers 13.7%, and professionals 5.4%. Noticeably, the results show that *first* is used in the middle position at a relative frequency between the intermediate (75.5%) and advanced writers (70.6%). However, professionals use it in this position at the highest frequency (92.8%). Even though it is quite low in frequency, this temporal marker is located in the final position by the advanced writers is considerably higher in frequency than the rest of proficiency levels. As shown, the advanced writers' frequency is 15.7%, followed by intermediate writers 4.6%, and professionals 1.8%. It can be implied from the overall result that *first* is most frequently located in the middle position of the sentences by all levels of writers. However, it is not commonly located in both the initial and final positions of the sentences.

4.3.8 The Position of TM "Immediately"

The corpus revealed that the temporal marker *immediately* is never used in the initial position of the sentence by both intermediate and advanced writers (0% occurrence). However, even though at a low frequency, it is located in this position at 2.9% of frequency by the professionals. It is also revealed that the advanced writers (85.7%) and professionals (87.1%) comparatively locate this marker in the middle position at the highest frequency compared with the intermediate writers (44.4%). However, it is found that the lower level of proficient writers tended to use this marker at the final position more frequently than the higher proficient writers. As shown, the intermediate located in the final position at the frequency of 44.4%, followed by the advanced writers 14.3% and the professionals 10%. It can be interpreted from the results that lower proficient writers cannot use *immediately* in the initial position of the sentences. However, they tend to locate it in the middle and final position. Overall, this temporal marker is most frequently located in the middle position of the sentences by all levels of writers.

4.3.9 The Position of TM "Afterwards"

According to the previous results (Table 2), temporal marker *afterwards* is not familiar among the lower proficient writers, both intermediate and advanced writers. Thus, this marker is hardly employed in writing by lower proficient writers. The results (Table 6) show that intermediate writers only employ this temporal marker in the initial position, while advanced writers only employ this marker in the middle location. However, it is revealed that the professionals seemed to be familiar with using this marker. They employed all positions (initial 23.5%, middle 41.2%, and final 35.3%) of the sentences at a comparative frequency.

4.3.10 The Position of TM "Meantime"

As revealed from Table 2, the temporal marker *meantime* is not familiar among lower proficient writers, so they hardly use it in their writing. However, only the professionals are familiar with the use of this marker. It is shown that the professionals most frequently employ this temporal marker in the middle position of the sentences at the frequency of 94.7%, while at the final position, only at 5.3%. They never locate it in the initial position since it is not grammatically correct.

4.3.11 The Position of TM "Meanwhile"

According to Table 2, temporal marker *meanwhile* is not popularly used among the lower proficiency of writers. Therefore, this mark is not familiar in usage by both intermediate and advanced writers. However, the results (Table 6) revealed that the professionals most frequently locate this marker in the initial position of the sentences at the frequency of 76.9%. In comparison, they locate in the middle position only 23.1%. It is shown clearly that they did not employ the marker at the final position of the sentences since it is not grammatically correct. Overall,

the results imply that the lower proficient writers do not generally employ the temporal marker *meanwhile*. However, it is very familiar in usage among the higher proficient writers and located frequently in the initial position of the sentences.

4.3.12 The Position of TM "Originally"

A similar result is also found in the trend of originally using temporal markers. The results revealed that *originally* is not familiar in usage among the lower proficient writers, and it is frequently used by the higher proficient writers only. It is shown that the professionals most frequently locate this temporal marker in the middle position of the sentences at a frequency of 86.1%, while in the initial position at the frequency of only 11.1%. It is not found to be used in the final position of the sentences. The results implied that the temporal marker *originally* is one of the high-level words that the higher proficient writers generally use. It is frequently located in the middle position of the sentences.

4.3.13 The Position of TM "Second"

The results indicated that all learners' proficiency levels tend to most frequently locate temporal maker *second* in the middle position of the sentences. The professionals are located in the middle position at 92.2%, followed by the intermediate writers 80% and the advanced writers 75%. Lower proficient writers were found to more frequently locate this marker in the initial position of the sentences than those of higher proficient level. According to the figure (Table 6), the intermediate writers located in the initial position at a frequency of 20%, the advanced writers 15%, and the professionals 6.8%. It is also found that all proficient writers do not prefer to locate this marker in the final position of the sentences since the frequency is found too low. It can be inferred from the findings that the temporal marker *second* is most frequently located in the middle position of the sentences by all levels of proficiency. However, it is less frequently located in the final position of the sentences.

4.3.14 The Position of TM "Subsequently"

The results indicated that temporal marker *subsequently* is never used by the lower proficient levels of writers, but it is used by professionals only. It is most frequently located in the middle position at the frequency of 93.3% and the initial position of 6.7%, and never located in the final position of the sentences. It can be implied from this finding that *subsequently* is one of the high-level words which is familiar in usage by the higher proficient writers, and it is most frequently located in the middle of the sentences only.

4.3.15 The Position of TM "When"

The findings (Table 6) revealed that the temporal markers *when* are most frequently located in the middle position of the sentences by all proficiency levels at a comparative frequency. As shown, the advanced writers locate this marker in the middle position at a frequency of 80%, followed by the intermediate writers 62.8%, and the professionals 62.6%. Even though it is at a low frequency, all proficient writers tend to locate this marker in the initial position of the sentences at a similar frequency. However, they never locate it in the final position of the sentences since it is not grammatically correct. It can be interpreted from the overall findings that the temporal marker *when* is most frequently located in the middle position but never at the final position of the sentences.

5. Discussion

The current corpus-based study attempted to investigate the tendency to use temporal markers in English writing among Thai EFL writers. The study aimed to find the answers to three addressed research questions. The first question was to find any significant difference in the use of TMs among three different groups of writers: intermediate, advanced, and professional. The findings revealed a significant difference in the use of TMs in their writing. The higher proficient writers (Professionals) were found to have a higher tendency to employ TMs in their writing than the lower ones (intermediate and advanced writers). However, intermediate writers employed TMs at a more redundant level than advanced writers. This finding is in line with Eman & Radwan's (2016) study. This might stem from the fact that the professional writers have more evident knowledge of using TMs in their writing to use these markers widely and appropriately in the composition of writing. However, the advanced writers tend to restrict the frequency of the use of these markers in their composition of writing because they might not want to utilize such devices much in their writing, and they prefer to use other linguistic tools to signal the time tense. Commonly, intermediate writers attempt to employ these markers as many as possible because they are learning how to use them and provide the sequence of their ideas in writing.

Additionally, they might feel risky to use tenses or other tools to signal the time as they do not yet have a clear idea of how to use them as the higher proficient writers do. Most of their essay writings are about describing events. They might also want to consume more space as they do not know how to write by using them as many as possible. The more they use, the more coherent their writings are, and the more score they might get. The more frequently

they employ, the lower quality of their writing. This finding is supported by Azadi & Chalak (2017). Their study of the composition of 150 writing by pre-intermediate, intermediate, and advanced writers found that the lower levels of proficiency tend to utilize temporal markers in writing than that higher level of proficiency.

The second question was to find the temporal markers that are most commonly utilized by each type of writer. The frequencies of each marker used by each writer type are ranked separately by Microsoft Excel. The results revealed six temporal markers: when, then, after, before, first, and second as the most frequently employed by all types of writers at a comparative rate. It can be drawn from this result that all writers are familiar with the use of these temporal markers. However, four temporal markers: meantime, meanwhile, originally, and subsequently are rarely or never used by lower proficient writers, but they are found to be only used by higher proficient or professional writers. This can be concluded that meanwhile, meantime, originally, and subsequently are higher-level words, which the lower proficient writers hardly employ. However, the lower proficient writers can rely only on the lower-level words, which are more frequently used and occur in simple or spoken contexts. They cannot employ these markers in their writing because it might be because they have never been instructed to use them.

The third research question is to find the difference in the positions of using temporal markers in each level of writers. Post hoc tests show that all groups share a common tendency in using TMs in both the initial and final positions of the sentences. However, intermediate and professional writers tend to use TMs in the initial position at a higher ratio than advanced writers. The finding is in line with Eman & Radwan (2016) that intermediate and professional writers tend to signal the readers about intended connectivity between discourse segments at an early stage so that the readers might not get confused or lose the connectivity while reading.

All groups have a different tendency to use TMs in the middle of the sentences. The intermediate and advanced groups share similar characteristics of the tendency in using in this position. However, their tendency is very different, as compared to the professional groups. The professional writers have a higher ratio in using TMs in the middle position of sentences than the lower proficient group. It is not surprising since professional writers have a better ability to use TMs in their writing more appropriately than those with lower proficiency levels. To use them in the middle position of the sentence, the writers show higher linguistic competence. Therefore, the intermediate and advanced level writers can use these markers in the middle position of the sentences restrictively. More importantly, when time is the focus, the higher proficient writers locate TMs in the initial position of the sentence. However, they just locate it anywhere appropriate when it is not the focus. On the other hand, the lower proficient writers just locate it everywhere, especially at the initial parts since it is more convenient to place even though the time is the focus.

6. Conclusion

The current study has found that the higher proficient writers (Professionals) have a higher tendency to employ TMs in their writing than the lower proficient writers (intermediate and advanced writers). However, intermediate writers employ TMs in their writing at a more redundant level than advanced writers. Six temporal markers: when, then, after, before, first, and second are commonly utilized by all groups of writers. All groups of writers showed a similar tendency in using TMs in both the initial and final positions of the sentences. However, intermediate and professional writers tended to use TMs in the initial position at a higher ratio than the advanced writers. In the middle position, intermediate and advanced groups share similar tendency characteristics; however, professional writers have a higher ratio in using TMs in the middle position of sentences than the lower proficient writers.

7. Implications and Recommendations

The findings of the current study can potentially contribute to the improvement of learning and teaching of writing. Significantly, the findings can be used as a reference or guideline for instructors to teach cohesive devices such as temporal markers to their students in the writing class. However, the findings might not be applied to some other context due to a small corpus size as it is a collection of writing from students from only two universities and two newspapers in Thailand. Therefore, it is recommended that further studies may choose a larger corpus size for better generalizability. Furthermore, research into the effect of the positions of temporal markers in sentence composition on the quality of writing is also recommended.

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