Using a Bilingual Concordancer for Text Revisions in EFL Writing

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ABSTRACT

Many students who study English as a foreign language (EFL) have difficulty transferring linguistic features between languages while writing. This study aims to investigate how college students improve their EFL writing with text revisions by using a bilingual concordancer (Chinese and English). A sample of 32 college students consented to participate in a writing program. According to pre-test scores, they were grouped into an experimental ($N = 15$) group, which used the bilingual concordancer, and a control ($N = 17$) group, which used Yahoo's Chinese-English online dictionary. The results of the study indicate that the experimental group made greater improvement in text revision than those in the control group, as they raised metalinguistic awareness to evaluate word choice and sentence construction, by viewing authentic language examples retrieved from the bilingual concordancer. The bilingual concordancer also provided the experimental group with rich linguistic contexts to compare the differences between two languages and induce the rules of the target language (English), which lead to a reduction in errors due to the interference of the native language in EFL writing. In contrast, the control group relied mostly on limited sample sentences listed in the online dictionary, and lacking contexts resulted in little writing improvement.

Keywords

Authentic language examples, Bilingual concordancer, Language interference, Metalinguistic awareness, Text revision

Introduction

Students' using their native language in organizing an essay is viewed as one effective writing strategy (Kim & Yoon, 2014; Manchón, Roca de Larios, & Murphy, 2009; Manchón & Roca de Larios, 2007) as students often find it difficult to comprehend a target language when the language principles are different from those of their native language. When students encounter difficulties, some may resort to their native language to apply rules and structures to their second or foreign language learning (Harun, Massari & Puteh Behak, 2014; Storch & Wigglesworth, 2003; Payant & Kim, 2015). As a result, some interference may occur from the application of their native language in various areas of linguistic components including phonology, morphology, grammar, syntax, lexis and semantics (Hohenstein, Eisenberg & Naigles, 2006), leading to errors like misuse of word choice, incorrect sentence construction, and logical order.

To overcome learning difficulties, college students who are studying English as a foreign language (EFL) often use bilingual dictionaries to confirm word meanings, choice, or use. But language examples provided by bilingual dictionaries "may not be sufficient for students to learn word meaning and usage, and may even lead to inappropriate word use" (Lai & Chen, 2015, p. 341). As a consequence, students often write incorrect sentences and select inappropriate words when engaged in EFL writing. This is usually the case, because bilingual dictionaries do not include many "collocations, sentence constructions, or metaphorical interpretations" (Gao, 2011, p. 256).

To further support EFL writing, many studies have proposed that a bilingual concordancer may improve learning at both word and sentence levels or even aid in writing proficiency (Gao, 2011; Lai & Chen, 2015) as the bilingual examples from collections of articles with mutual translations provided by the bilingual concordancer may facilitate students to apply prior knowledge to examine linguistic resources and revise writing errors to construct new language knowledge, and therefore help EFL students with their writing. Yeh, Liou, and Li (2007), however, indicate that students may "spend so much time searching for appropriate lexical items but still have difficulty expressing themselves precisely" (p. 132). Even with the assistance of a bilingual concordancer, teachers still have to guide their EFL students on how to use a bilingual concordancer with the engagement of metalinguistic awareness to express their thoughts appropriately in written communication (Yang, Wong & Yeh, 2013).

A bilingual concordancer with metalinguistic awareness to improve EFL writing

A bilingual concordancer provides a large number of language examples, with keywords displayed in contexts, and allows students to query in both the source and in the foreign language. While making a query, students can benefit from the teacher's guidance in fostering students to integrate their previous and emerging knowledge to monitor and evaluate unfamiliar expressions in a foreign language. For example, a teacher can guide his/her students to query unfamiliar words or phrases encountered in the process of reading or writing a foreign language text, and help his/her students to understand the meanings by evaluating authentic language examples and translations, so as to enhance the transfer of word knowledge (Kaur & Hegeleimer, 2007), self-correction of expression (Gaskell & Cobb, 2004; O'Sullivan & Chambers, 2006), and the transfer of language knowledge to academic writing tasks. A bilingual concordancer may help to improve students' EFL writing, but most students need to be trained to orchestrate their metalinguistic awareness when using the concordancer to get the maximum benefit.

When students use a bilingual concordancer to examine their word choice or sentence construction, they are encouraged to monitor and evaluate the related language examples for revising errors (Gao, 2011). In writing processes, writing and revision are regarded as rational negotiations between writers' thoughts and their emerging texts. To analyse linguistic rules, structures, and functions for writing meaningful sentences, it is important for students to raise their metalinguistic awareness. Jessner (2008) defined metalinguistic awareness as "the ability to focus on linguistic form, to categorize words into parts of speech, to switch focus between form, function, and meaning, explain why a word has a particular function" (p. 277). Roehr (2008) and Szerencsi (2010) also proposed that a student's language proficiency, in their target language, was highly correlated with metalinguistic knowledge that could be manipulated to evaluate his/her language production and learning aptitude. In EFL writing, metalinguistic awareness plays an important role in helping students examine their writing process. When they encounter difficulties in terms of different linguistic features and structures, the metalinguistic process is conductive to thinking about what one already knows, monitoring emerging understanding, applying strategies, evaluating the effectiveness of these strategies, and revising strategies (Baker, Gersten, & Scanlon, 2002). A bilingual concordancer functions to raise EFL students' metalinguistic awareness as students are able to reflect on the language features by examining the connections between words or sentence structures in two languages to respond to a particular query posed either by the teacher or students themselves (Gao, 2011). Many researchers have employed bilingual corpora to help students study grammatical patterns from authentic texts (e.g., Chujo, Anthony, Oghigian & Uchibori, 2012; Francis, 2012; Gao, 2011; Liou & Chan, 2005; Wu, Chen, Chang & Chang, 2017).

Background of this study

This study aimed to investigate how the students improved their EFL writing using a bilingual concordancer or an online bilingual dictionary with their engagement in metalinguistic awareness in the process of text revision. Text revision can "increase student engagement and attention to detect and correct writing problems" (Ferris, 2003, p. 52), and then elevates writing proficiency (Ferris & Roberts, 2001). When using a bilingual concordancer, an online Chinese-English dictionary, or the teacher's guidance, students may improve EFL writing which features word choice, sentence patterns, and logical structures in text organization, from translating native (Chinese) to a foreign (English) language. A bilingual concordancer that retrieves authentic language examples from Taiwan Panorama concerning Taiwan's political, economic, social, and cultural evolution with insightful views was authorized and developed in this study based on the data-driven learning (DDL) approach (Johns, 1991), emphasizing the consultation of authentic corpus examples and the discovery of rules by induction (Gao, 2011). The concordances, retrieved from the corpus that contains 8,594,904 English words and 5,757,930 Chinese words, are aligned at a paragraph level manually (Yang, Wong & Yeh, 2013).

The bilingual concordancer "enables users to search for language patterns in a corpus" (Sun, 2007, p. 324) and to evaluate whether the language examples containing the keywords used are helpful to their text revision and then decide what the revising strategies are. In this study, metalinguistic awareness in the use of a bilingual concordancer refers to students' abilities to plan strategies, monitor learning processes, evaluate the effectiveness of the strategy, and revise strategies. EFL students are encouraged to self-correct and explain their errors in both their first language (Chinese) and foreign language (English). In searching for Chinese language examples and their English translation, entering Chinese keywords is required. Students are encouraged to look for the keywords in the context (Chinese) that helps express his/her thoughts in the target language (English).

In Figure 1, two Chinese keywords are submitted, for example, "看到" (see/saw) and "追" (chase/chase after), as an entry to search for English examples on how the keywords relate to their adjacent words in different contexts. In this case, there are 20 examples retrieved from the corpus. The bilingual concordancer allows a multiple-word entry in both Chinese and English interface in order to retrieve more examples with contexts for the students to check how the keyword or phrases are used in various contexts as well as compare the difference between two languages in the same context. As shown in Figure 1, the keywords are marked in the context of the Chinese language example in the first row. Following this, it is the English translation for the Chinese example, in which the student can look for the English equivalent for the keywords, also marked, in the context of the English language example. All useful language examples can be saved for later reference.

To investigate how college students improve EFL writing with text revision by using a bilingual concordancer or an online bilingual dictionary, three research questions were addressed: (1) What writing progress is made in text revision between the two groups?; and (2) How do students operate their metalinguistic processes in text revision for writing improvement?; and (3) What are students' perceptions toward using a bilingual concordancer and an online bilingual dictionary for text revision in EFL writing?

Figure 1. A search example in the bilingual concordance

Method

Participants

Thirty-two participants studying English as a foreign language (EFL) from different departments and colleges of a university in central Taiwan volunteered to participate in a writing program, an elective course. Before entering the writing program, the students were asked to take a text-structured pre-test to evaluate their ability to comprehend texts and develop a logical flow of main and supporting ideas in a text as well as to master content words such as phrases and transition words. Selected from the Testing Center for Technological and Vocational Education in Taiwan, the text-structured pre-test consisted of two parts, a topic sentence part and a supporting part (see Appendix A). There were 10 test items in each part and the maximum score on the test was 100. The reliability of the test was .94 (see http://www.tcte.edu.tw). According to the text-structured pre-test, the 32 students were grouped into experimental and control groups with similar mean scores. There were 15 students in the experimental group and 17 students in the control group. The mean score and standard deviation on the pre-test for the experimental group was 36.32 and 15.54, while the mean score and standard deviation for the control group was 39.17 and 13.20. A paired-sample t-test was employed and represented no significant difference between the two groups' English language proficiency ($t(31) = 3.75$, $p > .05$). The Levene's test for equality of

variances was also calculated (Levene Statistic= 4.01; *p* = .32). The result indicated that there was no difference between the variances in the experimental and the control groups.

Procedures of data collection

Writing instruction from the same teacher was conducted over a period of 12 weeks (2 hours per week) from March 11th, 2017 to June 10th, 2017. First, the students were categorized into the experimental and the control groups, according to their scores on the text-structured pre-test in week 1. After that, both groups were required to complete three writing tasks during the following weeks, entitled "One good deed" (week 2-4), "I had a dream" (week 5-7), and "Listen to me" (week 8-10). The length of each essay was from 150 to 200 words. Before the end of the writing instruction, the students were asked to take a text-structured post-test (week 11) with different version from the pre-test to examine their learning progress after using the bilingual concordancer or the online bilingual dictionary for text revisions during the writing instruction. Moreover, the students' perspectives on using the bilingual concordancer and Yahoo's Chinese-English online dictionary to improve text revisions were also reported in the two versions of the open-ended questionnaires (week 12), adapted from Yoon & Hirvela (2004) and administered to each of the two classes during a regular class period. Instructions on how the bilingual concordancer and online bilingual dictionary work for text revisions were given throughout the writing program. The keywords used to search the language examples from the bilingual concordancer as well as the online dictionary were documented.

For the experimental group's first writing task, the teacher provided scaffolding prompts (Appendix B) and modeled the students on how to use the bilingual concordancer by entering keywords for example sentences in contexts. Next, the teacher illustrated the students' errors on their first draft "One good deed," and instructed them on how to enter keywords to improve their writing. The students were also encouraged to practice entering keywords in the bilingual concordancer to clarify any unfamiliar words and grammar use when revising their first drafts into their final ones. In task 2, the students would learn to search for appropriate words or expressions in different contexts by consulting the bilingual concordancer, they were asked to write their first draft of "I had a dream." After they completed their first drafts, the teacher would then point out the writing errors for them to revise. They then individually practiced using the bilingual concordancer for text revisions, and were reminded again to write useful phrases from the sentence examples. The teacher only provided necessary instructional support on searching for keywords when needed. In task 3, the students wrote their first draft of "Listen to me." The students revised their first drafts into final ones, using the bilingual concordancer to revise writing errors.

On the other hand, to accomplish the three writing tasks, the control group used Yahoo's Chinese-English online dictionary which is one of the most frequently used online bilingual dictionaries in Taiwan and is free of access and functional as users look up a single word or a string of keywords in L1 or L2 for an equivalent to check its usage and sentence structure, confirm meaning, spelling, parts of speech, inflection and count ability or even find an alternative (Lai & Chen, 2015). In Task 1 and 2, based on the teacher's feedback, the students revised their first drafts into final ones. They were required to take notes on each error correction and explain their decisions for accepting or rejecting their teacher's suggestions. In Task 3, they were asked to correct their writing errors by themselves and revise their first drafts into final ones.

While the Chinese-English online dictionary offers definitions, and sometimes with sentences examples to show how a word can be used, the authentic sentence examples provided by the bilingual concordancer come in with paragraphs.

Procedures of data analysis

The data collected in this study included the text-structured pre- and post-tests, descriptive statistics of text revisions, log files of the students' interaction with the bilingual concordancer and Yahoo's Chinese-English dictionary, and two open-ended questionnaires. First, two paired-sample *t*-tests were administered to compare the students' writing progress in both the experimental and control groups. Second, in the three writing tasks for text revisions, based on O'Sullivan and Chambers' (2006) classification, the students' writing errors were classified into three types, including (1) grammatical errors (incorrect use of nouns/adjectives/adverbs, verb tense/verb voice, and subject-verb agreement); (2) lexical errors (misuse of word choice), and (3) syntactic errors (incorrect sentence construction and logical order). For example, "*I do many things for the social.*" "*social*" would be identified as a grammatical errors in this context due to an incorrect use of adjectives. "*They thought of many ways to care for the stray dog, like feeding them or playing with them.*" "*Care for*" in this particular context

would be seen as a lexical error. "*I talk with you was very loud*" is an example of a syntactic error, showing an incorrect sentence construction.

The students' error corrections from first to final drafts in tasks 1 to 3, were divided into correct and incorrect revisions, and were then calculated by descriptive statistics. When the errors identified in the first drafts were correctly revised in the final ones, they were regarded as correct revision; otherwise, they were regarded as incorrect revision. Third, to investigate any writing improvement between the experimental and the control groups after using the bilingual concordance and Yahoo's Chinese-English online dictionary, two sample cases were randomly selected from the two groups as they underwent different metalinguistic processes. Finally, two trained raters, who had more than 10 years experiences in EFL teaching followed the steps of content analysis (Patton, 2002) to evaluate the students' text revisions in their final drafts. They also examined the students' perceptions about using the bilingual concordancer and Yahoo's Chinese-English online dictionary in two versions of an open-ended questionnaire.

Four steps of content analysis were included in this study: coding, categorization, description, and interpretation. First, two raters coded the statements from the students' text revisions recorded in the log files, as well as, their perspectives on using the bilingual concordancer and Yahoo's Chinese-English online dictionary. Next, the students' text revisions were categorized into three types, including grammatical, lexical and syntactic errors (O'Sullivan & Chambers, 2006). The students' statements from the open-ended questionnaires were also categorized. The researchers described the statements by summarizing the main points. Finally, the researchers interpreted the main ideas by offering explanations, drawing conclusions, and making inferences. The inter-rater reliability for the students' text revisions and open-ended questionnaires were .83 and .86 in this study. Disagreements between the raters and researchers were resolved through discussion.

Results

The results of this study are presented in three aspects. First, the students' text revisions for EFL writing progress is shown by the paired-sample *t*-tests between the two groups from the pre- and post-tests, as well as, the descriptive statistics of the text revisions. Second, the log files of two randomly selected students, S1 from the control group and S10 from the experimental group, were examined in order to understand how the students used the bilingual concordancer and Yahoo's Chinese-English online dictionary to reduce writing errors through the metalinguistic awareness. Finally, the students' perspectives toward the bilingual concordancer and the online bilingual dictionary are reported.

Students' text revision for writing improvement between the two groups

The answer to the first research question, "*What writing progress is made in text revision between the two groups?*" is illustrated as follow.

The two paired-sample *t*-tests were conducted to evaluate the two groups' text revisions. For the experimental group, the mean scores and standard deviation increased from 36.32 and 15.54 on the pre-test to 53.33 and 27.31 on the post-test. A significant difference between the pre- and post-test scores are shown (t = -4.09, p < .01). A medium effect size was found (ES = 0.61). In contrast, the control group made a slight improvement in their writing, as seen in the mean scores and standard deviation which increased from 39.17 and 13.20 on the pre-test to 45.94 and 22.89 on the post-test. There was a significant difference between the pre- and post-tests (t = -2.42, p < .03). There was a small effect size (ES = 0.44) in text revisions for writing in the control group. The results reveal that the students in both the experimental and control groups improved their writing with text revisions, while the experimental group made greater writing improvement than those in the control group. Regarding the descriptive statistics between the two groups (see Table 1), grammatical errors (e.g., incorrect use of nouns/adjectives/adverbs, verb tense/verb voice, and subject-verb agreement), lexical errors (misuse of word choice) and syntactic errors (e.g., inappropriate word expression and incorrect sentence structure) were examined. The two groups made more grammatical errors than other types of errors; however, the students of the experimental group were able to make more lexical and syntactic revisions than the students in the control group. In particular, the students in the experimental group diagnosed lexical errors by themselves in corrective revisions which increased from 6 to 8 in tasks 1 to 3. Some of them also corrected syntactic errors in task 3 without the teacher's instructional assistant. In contrast, the students in the control group relied mostly on the teacher's scaffolding to detect grammatical errors. They revised 17 grammatical errors in corrective revisions

with the teacher's help in task 1; however, most of them were unable to revise grammatical errors in task 3 without the teacher's instructional support, and they only diagnosed three errors in corrective revisions.

Table 1. Text revisions between the two groups

| | Experimental group ($N = 15$) | | | | | | | |
| | Correct revisions | | | | Incorrect revisions | | | |
Writing errors	Task1	Task 2	Task3	Total	Task1	Task2	Task3	Total
Grammatical errors	12	18	21	51	7	8	3	18
Lexical errors	6	5	8	19	1	3	2	6
Syntactic errors	2	1	3	6	0	0	0	0
	Control group ($N = 17$)							
	Correct revisions				Incorrect revisions			
Writing errors	Task 1	Task2	Task3	Total	Task1	Task2	Task3	Total
Grammatical errors	17	15	3	40	3	6	12	21
Lexical errors	0	0	0	0	5	1	3	9
Syntactic errors	0	0	0	0	2	7	1	9

Students' text revision to improve EFL writing with metalinguistic awareness

To answer the second research question, "*How do students operate their metalinguistic processes in text revision for writing improvement?*" two sample cases, S10 from the experimental group and S1 from the control group, were selected by simple random sampling. Each student was given a random number with the same probability of being chosen from the experimental and control groups to compare their text revisions through metalinguistic process. S10 reduced his writing errors, improving his writing quality when he actively examined his revising process. S1, however, displayed little error correction ability, and mostly relied on the teacher's instructional support.

S10's text revision to improve writing in metalinguistic process

In Task 1, S10 received instruction from the teacher on using the bilingual concordancer to get to know how text revision in EFL writing can be done by observation and investigation on the language examples. And in Task 2, he started to revise his first drafts to final ones based on the teacher's suggestions. He planned and carried out the search strategies for text revisions. His revision process revealed in Table 2, in the first draft, syntactic errors such as "I do many things for the social, like public service activities," S10 typed in the search strings Chinese phrases, such as"社會"(society), "公益活動"(public service activities) or "慈善事業"(charities) in the bilingual concordancer. For the second sentence, "I accomplish my dream of a childhood," S10 made a search on "兒時的" (of childhood). For the third sentence, lexical errors such as "After traveling, I come to home, and I am so tired," he searched for sentence examples to revise the phrase, "come to home" by typing in the Chinese search string, "回家" (return home).

S10's final draft appears to be more coherent and logical, indicating his ability to check incorrect word expressions and sentence structures and to choose appropriate words and phrases for expressing his thoughts in writing. In view of metalinguistic awareness, S10 monitored his own learning processes to reduce writing errors. Table 2 shows S10's writing process for task 2, demonstrating how the students in the experimental group underwent metalinguistic processes by monitoring language examples with the help of the bilingual concordancer and by evaluating the teacher's suggestions to improve text revisions. It may seem challenging for him to completely understand the English language examples retrieved by the concordancer. Nevertheless, with careful reading the bilingual language examples and the assistance from the teacher, S10's final draft shows both fluency and accuracy after his undergoing metalinguistic processes.

Table 2. S10's revising process in task 2

Phase	Revision
First draft	**I do many things for the social,** like public service activities. Also I **accomplish my dream of a childhood**……After traveling, I **come to home**, and I **am** so tired.
Suggestions from the teacher	For revising "I do many things for the social," please make searches in on "社會"(society), "慈善事業"(charities).

	For revising, "my dream of a childhood," please make a search on "兒時的"(of a childhood).
	For revising the grammatical error, "come to home," please make a search on "回家"(go home). Please pay attention to the tenses for some of the sentences.
Remarks after consulting the bilingual concordancer	1. "the social" couldn't be found in any of the sentence examples, but I found "the society." "engaged in charitable activities" seems to be a better way to express what I want to say.
	2. "a childhood dream of mine" is one of the ways of saying what I dreamed when I was a child.
	3. I couldn't find "go to home" in the concordances; however, I can say "went home" or "returned home."
Final draft	**I engaged in charitable activities for the society,** like public service activities. Also I **accomplished a childhood dream of mine**……After traveling, I **returned home**, and I **was** so tired.

Table 3 shows S10's text revisions in task 3, using the bilingual concordancer without the teacher's instructional support. In the first draft, it is obvious that S10's English sentence structure is under the influence of her native language, Chinese. A few errors are identified as followed: (1) a syntactic error, "*I talk with you was very loud*"; (2) a syntactic error and lexical errors, "*Because last week I force important subject's midterm*"; (3) a syntactic error and two grammatical errors, "*So when I return home. I wanted to prepare for study this subject immediately.*" S10 searched the bilingual concordancer for words and phrases in contexts to revise his writing errors. The remarks he made during the revising process provides evidence that he detected the differences between the Chinese and English language examples, deduced appropriate expressions, and then finally reconstructed his sentences in accordance with English sentence patterns.

Table 3. S10's revising process in task 3

Phase	Revision
First draft	I talk with you was very loud. Because last week I forced important subject's midterm. The test content was very hard. So when I return home. I wanted to prepare for study this subject immediately.
Errors pointed out by the teacher	1. <u>I talk</u> with you was very loud.
	2. <u>Because</u> last week I <u>force</u> <u>important subject's midterm</u>.
	3. <u>So</u> when I <u>return</u> home. I wanted to <u>prepare for study this subject</u> immediately.
S10's remarks on the error revision	1. I used "loud" as a keyword to look for example sentences. After examining them, I figured out maybe I could say "too loudly."
	2. "face" is the right word.
	3. I found a better phrase, "prepare for the midterm."
Final draft	**I talked too loudly to you.** Last week I **faced** important **subject** midterm. The test content was very hard. When I returned home, I wanted to **prepare for the midterm** immediately.

Table 4 shows how the students in the experimental group would query the words in the bilingual concordancer, a strategy leading to language examples, to improve his writing in task 3. First, S10 queried a keyword "大聲說" meaning raising voice or speaking out loud as the first sentence in the first draft lacks the clear predicate relationship in sentence construction, an syntactical error pointed out by the teacher. The notes taken during his revising process and saved in the online notebook indicate S10 was able to correct the sentences by observing correct English sentence construction in paragraphs. That is, the keyword in contexts in the language examples could be advantageous for his induction and deduction of grammatical rules and word usage. In this case, he observed the contexts containing the keywords and discovered that "speaking out loud" or "announced loudly" could not exactly express what he meant. As he continued to examine the rest of the sentence examples, he found a phrase "大聲說," meaning "too loudly." S10 identified and extracted the examples that were appropriate to express his thoughts in revising his final draft. Although there are still some errors in S10's revisions, the final draft was markedly different from the first draft, the metalinguistic process which S10 was engaged in while using the bilingual concordancer prompted him to monitor and evaluate the word choice and sentence patterns, allowing him to recognize his writing problems and revise his sentences into a logical flow.

Table 4. Student 10's records of searching in Task 3

Keyword	Sentences	Date
大聲說	天性裡有種「不好意思煩到別人」(連在街頭把音響開太大聲也會不好意思)的胡啟志，卻是在台灣混了一年、過完憂鬱的 24 歲生日後，為了替自己「搞得一團亂、不知道在幹嘛」的生活找出路，才帶著谷底反彈的心情，站上週末的西門町街頭。	2017/6/7
	Hou hates to bother people (to the point that he gets embarrassed if his stereo is turned up <u>too loudly</u>). But an aimless year in Taiwan and a depressing 24th birthday gave the impetus to try busking in Ximending to break out of his rut.	
Note	太大聲：announced loudly **Save**	
大聲說	主人是位醫生，當她看到穿著制服的賴世雄來送麵，刻意叫他留下片刻，要讓子女認識他，賴世雄以為對方要誇獎他勤快做事，豈知醫生竟當著子女的面前，<u>大聲說</u>：「你們看到沒有，不好好用功讀書，將來就像他一樣去賣麵！」這句話嚴重地傷害一個少年的心。	2017/6/7
	When the father of the family, a doctor, saw him delivering noodles to their home wearing school uniform, he called Lai in to meet his children. The young boy thought that he was going to be praised for being so capable at such a young age, but the doctor <u>announced loudly</u> to his children, "If you do not study hard, you will be like him selling noodles after school!" Understandably, these words broke his heart.	
Note	大聲說：announced loudly **Save**	

S1's text revision to improve writing in metalinguistic process

S1 from the control group was asked to revise her written texts by consulting Yahoo's Chinese-English online dictionary. In task 2, S1 was expected to make corrections and took notes to explain why she agreed with her teacher's suggestions. As shown in Table 5, the revisions on the syntactical errors were not explained. When checking on the search outcome for the keyword "*chase*" from Yahoo online dictionary, what the users can expect is the syntactical functions and morphological features that help to determine a part of speech and bilingual language examples at a sentence level. There is no context showing how one word is related to another. As such, it is not difficult to understand why S1 did not express the reasons for some of her revisions. Lacking contexts to display word usage and sentence structures could hinder students' progress of deduction and induction of a language.

Table 5. S1's revising process in task 2

Phase	Revision
First draft	I found myself on **corridor** of **elementary** school. As soon as I saw **they chase** me. I **scream and run** as fast as possible. Amazingly, **their speed was very fast to me to run**.
Suggestions from the teacher	1. the corridor 2. an elementary school 3. As soon as I saw them chasing after me 4. screamed and ran 5. Amazingly, they were too fast. I could not escape.
Keywords for searches in Yahoo online bilingual dictionary	1. corridor 2. elementary 3. chase
Remarks on Teacher's suggestions	1. For "corridor," S10 noted down "Article + Noun." 2. For "elementary," S10 noted down "a/an (an indefinite article)," used before a word that begins with a vowel. 3. No remark on "chase"
Final draft	I found myself on **the corridor** of **an elementary** school. As soon as I saw them **chasing after** me, I **screamed and ran** as fast as possible. Amazingly, **they were too fast. I could not escape**.

In task 3, S1 revised the errors identified by her teacher in the first draft (Table 6). She managed to revise most grammatical and lexical errors. As for the syntactical errors, she seemed to have trouble finding answers by only

consulting the online bilingual dictionary. One of the possible reasons could be the inadequacy of the language examples provided by the dictionary. Another may result from the number of words in a search string allowed to be entered as an entry in the dictionary. To be specific, she cannot use multiple words or phrases as a search string to get language examples from the online dictionary. Consequently, she was not able to find the language examples that meet her needs. Syntactical errors usually involve multiple words or phrases. Under the circumstance, it is understandable that she revised "*Two weeks ago, you was asking me*" into "*Two weeks ago, you were asking me*" instead of "*Two weeks ago, you asked me.*" Another example, the phrase, "*Originally, I said,"O.K.," but I regretted when last Wednesday*," was translated into English from Chinese word for word. First, language influenced S1's metalinguistic process in constructing the clause. Without a context, she could not observe how words were related to one another, nor the formation of sentences in a specific context between Chinese and English. These findings indicate that the online bilingual dictionary alone could not help EFL students find English equivalents for their Chinese concepts when their EFL writing is under the influence of their native language since they did not receive a large number of language examples and translations to help monitor their writing problems in word choice and sentence construction.

Table 6. S1's revising process in task 3

Phase	Revision
First draft	Dear Judy, I apologize for having a quarrel with you last week. Two weeks ago, you was asking me, "Do you want to go to Tainan with me next week?" Originally, I said, "O. K.," but I regretted when last Wednesday because I was very tired and I wanted to go home. About this thing I felt guilt and sorry for you.
Errors pointed out by the teacher	1. <u>Two weeks ago, you was asking me</u>, "Do you want to go to Tainan with me next week?" 2. ····., but I regretted <u>when last Wednesday</u> because I was… 3. <u>About this thing</u> I felt <u>guilt</u> and <u>sorry for you</u>.
Keywords for searches in Yahoo online bilingual dictionary	1. when last Wednesday 2. about 3. with 4. guilt 5. guilty 6. sorry for
Final draft	Dear Judy, I apologize for having a quarrel with you last week. Two weeks ago, you **were asking** me, "Do you want to go to Tainan with me next week?" Originally, I said, "O. K.," but I regretted when last Wednesday because I was very tired and I wanted to go home. About this thing I felt **guilty** and sorry.

The students' perceptions toward using the bilingual concordancer and Yahoo's bilingual dictionary

To answer the third research question, "*What are students' perceptions toward using a bilingual concordancer and an online bilingual dictionary for text revision in EFL writing?*" two open-ended questionnaires were conducted to understand the students' perceptions when using the bilingual concordancer and Yahoo's Chinese-English dictionary in the metalinguistic process on improving writing. As shown in Table 7, most of the students in the experimental group (93%) expressed a positive response towards the bilingual concordancer. They indicated that the bilingual concordancer could help them to clarify word use and sentence patterns in writing as they reviewed many authentic language examples. Eleven participants (73%) figured out grammatical rules and sentence structures between Chinese and English, such as lexical features. Vocabulary in different English contexts may have different meanings, but this linguistic feature may not exist in Chinese. Nine participants (60%) remarked that the teacher's scaffolding prompts for searching keywords and associated strings were very helpful to them when revising their texts. However, three participants (20%) stated they still had trouble using the bilingual concordancer because the language examples were too long and difficult to understand. Simple language examples would be better for them. The results indicate that the students in the experimental group raised their metalinguistic awareness, as they learned to distinguish different linguistic features between English and Chinese. They also reduced their errors in the two languages, as they could observe both grammatical rules and sentence structures from authentic language examples in the bilingual concordancer.

Regarding the students in the control group, as shown in Table 8, all of them (100%) agreed that using the Yahoo's Chinese-English online dictionary is beneficial, and could help them find single word equivalence in writing. Ten participants (59%) described how they used the online dictionary to check synonyms, but they could

not ensure the correctness of their use. By using the online dictionary, they also discovered that the differences between Chinese and English are the subject and tense. In English, obvious subjects and tense are necessary, but in Chinese they may be ignored. However, seven participants (40%) claimed that they were unable to detect syntactical errors, such as sentence structures when using the online dictionary, among which may have to rely on teacher feedback to revise their essays. The results indicate that the control group could revise their grammatical errors and sometimes lexical errors with the help of Yahoo Chinese-English online dictionary, but when it comes to syntactical errors, they needed to seek other type of assistance.

Table 7. Students' use of the bilingual concordance (*N* = 15)

Statements	Frequency
1. The bilingual concordancer provides language examples in different contexts to help me learn word expression and sentence structure.	14
2. I could discover different grammatical rules and sentence structures between Chinese and English. For example, vocabulary in different contexts might stand for different meanings. The lexical feature often exists in English but does not exist in Chinese.	11
3. I could select the appropriate words or phrases and place them in the right context in term of my teacher's scaffolding prompts that introduced me how to enter keywords and associated strings.	9
4. Entering Chinese keywords to find equivalent English words and understand its word usage in multiple contexts facilitated me to avoid errors because I could observe and imitate correct word expression and sentence structure.	7
5. Pronouns and passive voice are often used in English sentences, but in Chinese they are not used very often. The bilingual concordancer helps me to discover how to use pronouns and passive voice correctly.	5
6. The language examples in English are difficult for me. I hope I can read more simple sentences after entering keywords.	3

Table 8. Students' use of Yahoo's Chinese-English online dictionary (*N* = 17)

Statements	Frequency
1. I usually used an online dictionary to find English equivalents for a single word.	17
2. It is helpful for me to check word meanings and the spelling of unfamiliar words.	13
3. I think consulting an online dictionary is helpful for me to check synonyms, but I cannot ensure whether using synonyms are correct or not when writing essays.	10
4. In English, the subject usually exists in the beginning of a sentence, followed by obvious grammatical tense. In Chinese, the subject and tense are often ignored.	8
5. Consulting an online dictionary may help me detect peers' grammatical errors at word-level, but I have problems detecting sentence-level errors such as sentence structures.	7
6. I still cannot distinguish sentence structures between Chinese and English when using the online dictionary. I rely on teacher feedback to revise my sentences.	5

Discussion and conclusion

This study is a response to previous studies, confirming that a bilingual concordancer can help EFL students find word expression and sentence structure to improve their writing through text revision, in terms of providing authentic language examples and translations (Lai & Chen, 2015; Gao, 2011; Yang, Wong & Yeh, 2013). The results also correspond to the findings of Gao's study (2011), indicating that metalinguistic awareness raised the students' awareness of how to understand and apply language knowledge to text revisions with the use of a bilingual concordancer.

The findings show that viewing a large number of language examples and translations is essential for EFL students to diagnose their writing problems as well as check on their own learning process, and especially solve the problem of misuse of word choice, incorrect sentence construction due to the interference from the application of students' native language. The teacher's useful guidance facilitated the students to engage in the metalinguistic process to diagnose more lexical and syntactical errors, since they were able to apply new language knowledge of word choice, sentence structures, and constructions to text revisions. On the contrary, the students in the control group mostly looked up the meanings of words by consulting an online dictionary and relied on the teacher's suggestions to revise their drafts. It is difficult for EFL students to induce or deduce language rules and sentence structures based on inadequate language examples. As a result, they often produce grammatically incorrect sentences and inappropriate word choices. It is suggested that EFL students refer to

various language tools in addition to online bilingual dictionaries. Finally, learning how to use a bilingual concordancer is of a great advantage for those who adopt self-correction approach to EFL writing improvement.

Some limitations and suggestions for future research were also elaborated in this study. First, the group size and number of participants was a major limitation of the study. The results of this study may not be representative enough to fully interpret all the problems that EFL students encounter, and the solutions that could be improved upon by using a bilingual concordancer. Second, the bilingual language examples from Taiwan Panorama may be challenging for lower-level EFL students. Additionally, future studies can investigate the effects of peer feedback in metalinguistic awareness to improve EFL students' language transfer in text revisions. Finally, a longitudinal study can be carried out to investigate the students' application of concordance learning to different fields with more participants and increasingly complicated writing tasks.

Acknowledgements

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Appendix A. Sample Items of Text-structured Pre- and post-test

Part I: Each paragraph lacks one topic sentence. Please select an appropriate topic sentence from the following test items.

1. _____ One enduring aspect of the cultures of Kenya is the family. Traditionally, Kenyan people received all their education from their parents and grandparents. Today there are schools to educate children, but the family is still very important as a social unit. Another enduring aspect of Kenyan cultures is respect for the old. Traditional society was organized around not only family life but also relationships with a group of people of the same age. These same-age groups went through all the stages of life together until they became the much-respected elders who made decisions for the community. Today old people are still respected, but they don't have the responsibility of leadership that they once had.
(A) Although Kenya has many different ethnic groups, the cultures across the nation share some common characteristics.
(B) Kenya is a country that embraces modernity with new characteristics.
(C) If you want to travel to Kenya, here are a few things you need to know.
(D) To know a country, you have to know its cultures.

Part II: Each paragraph lacks one sentence or clause. Please select an appropriate answer from the following test items.

2. When visiting a home in Japan, presenting a housewarming gift can either make or break your relationship with the recipient. As with most countries around the world, Japan has very ancient traditions concerning gift giving and detailed rules for everything from the color of the wrapping paper to the time of the gift presentation. _____
(A) To be appreciated in a culture, it is important to honor those customs as not to offend the receiving party.
(B) In Japan, gifts are avoided wrapped with brightly covered papers or bows.
(C) In Japanese culture, the giver hands the gift to the recipient at the end of the evening. This is the opposite of the traditions in the United States, where a housewarming gift is usually given as soon as you enter the home.
(D) It is customary to make a humble comment that the gift you are presenting, such as "This isn't a big gift," or "This is just a box of tea."

Appendix B. Bilingual concordancer training

The following steps are helpful for you to understand how to query keywords and associate strings in the bilingual concordancer.

A Chinese example: 澎湖每年都花大筆預算在海上**放煙火**吸引觀光人潮。

Step 1: Underline words/phrases you want use as keywords.

Step 2: For example, when you enter **"放煙火"** in the bilingual concordancer, you can find the following results.

Chinese sentence	在海上放煙火的確是與眾不同，再加上澎湖的空氣明淨，煙火特別耀眼。
Translation	Setting off fireworks over the ocean is, indeed, out of the ordinary.
Chinese sentence	「浪漫耶誕夜」、「跨年」等慶祝活動，永遠都是放煙火、找明星跨刀那一套，搞得既無創意，甚至演變成行銷首長形象的樣板。
Translation	"Romantic Christmas Eve," New Year's Eve shows, and things like that, which never got to be more than formulaic fireworks displays and appearances by pop stars, completely lacking in creativity, and in some ways they are just image-building exercises for politicians.

Step 3: Read the language examples, especially pay attention to the keywords highlighted in red color, checking its word use in sentences.

Step 4: Look back at the keyword in the Chinese example and its surrounding words.

Step 5: Compare and analyze the different results of the keyword and figure out which one would be better to translate this Chinese example.

Step 6: Induce the grammar use and sentence patterns to the keywords and surrounding words based on the examples.