

Language transfer for L2 writing revisions with a bilingual concordancer

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Abstract: This study investigated language transfer on students' L2 (English) writing revisions with a bilingual concordancer. The findings showed that the students could overcome negative language transfer of L1 (Chinese) in terms of modifying their word expressions by viewing language examples, and revised their first drafts into final ones with grammatical, lexical, syntactic, and mechanical revisions.

Keywords: Bilingual concordancer, Language transfer, L2 writing, Text revisions

1. Introduction

The influence which describes L2 learners use the knowledge of L1 and various strategies to assist their learning of a target language, such as speaking, reading, and writing, is known as language transfer (Karim, 2003). Language transfer refers to “influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired” (Odlin, 1989, p. 27). According to language transfer theory (Odlin, 1989), it is assumed that the learners' mother tongue will have a positive or negative transfer in learning a foreign language. A positive transfer helps L2 learners with correct L2 use due to the similarities in L1 and L2. In contrast, a negative transfer is the “cross-linguistic influences resulting in errors, overproduction, underproduction, miscomprehension, and other effects” (Liu, 2011, p. 1062). The differences between the two lead to a negative transfer, resulting in incorrect L2 production (Karim, 2003; Odlin, 1989). To overcome a negative transfer in L2 writing, a bilingual concordancer has been reported to help student writers find an equivalent phrase to transfer their thoughts into L2, by observing and analyzing sentence structures, word usage, and collocations (Lai & Chen, 2015). The purpose of this study, which aimed to investigate the effects of language transfer on students' L2 writing revisions with a bilingual concordancer, addresses three research questions: (1) Do students' knowledge of L2 writing improve after using a bilingual concordancer? (2) How can a bilingual concordancer help students overcome a negative language transfer to improve text revision? (3) What are the students' perceptions toward using a bilingual concordancer for L2 writing revisions?

2. Method

2.1 Participants

Thirty-two L2 students, who were studying English as a Foreign Language (EFL) from different departments and colleges at a university in central Taiwan, volunteered to participate in a concordance-based writing program. Before entering the writing program, the students were asked to take a text-structured pre-test to test their ability to comprehend texts, and develop logical flow of ideas or information in a text. The students were divided into two groups, with each group determined by their

mean scores on the pre-test: The experimental group consisted of 15 students and the control group 17 students. The mean score and standard deviation for the experimental group was 36.32 and 15.54 on the pre-test, while the mean score and standard deviation for the control group was 39.17 and 13.20. A paired-sample *t*-test was used and represented no significant difference between the two groups' writing proficiency ($t(31) = 3.75, p > .05$).

2.2 System development

A bilingual concordancer was developed in this study to improve the participating students' L2 text revision with respect to word choice and grammar use (Figure 1). The language examples were retrieved from Taiwan Panorama, a bilingual text corpus including more than one hundred thousand articles that introduce Taiwan's ongoing political, economic, social, and cultural evolution, with insightful views in both Chinese (L1) and English (L2). Through observation of sentence patterns, students are able to correct L2 writing production lest they are influenced by L1, i.e. a negative transfer. That is, second language learners with insufficient vocabulary or grammar knowledge are able to overcome negative language transfer in the process of L2 writing.

Key in a Chinese phrase here

Keyword: 過馬路 (to cross the road) Submit

No.	Sentence	Translation
1	鐘錶的另一邊，卻是家長的放任溺愛，導致不少孩子以自我為中心，難以管教。例如詹政道看到學生過馬路時散漫聊天，會勸導學生迅速通過，還常遭學生白眼；更有甚者，班上孩子抽煙、說粗話，老師跟家長溝通，家長根本認為無所謂，「這樣的態度，老師是很難教的，也有很深的無力感。」	Translation
2	為了保護抱卵的母蟹過馬路，墾管處從2003年開始，每年暑假利用月圓前後、圓缺蟹母蟹前往海邊釋卵的日子，舉辦「護送螃蟹過馬路」活動，邀請民眾一起保護陸蟹媽媽，除了委請警察隊在活動所在地台26線維持交通外，還在陸蟹最常出沒的香蘭灣設置警告牌，呼籲駕駛人在夏天月圓之際放慢速度，「讓路」給母蟹。	Translation
3	說到發明，徐義權強調，發明人的毅力很重要，許多天馬行空的點子在現時，總會被旁人潑盡冷水，唯有靠自己堅持下去，新發明才有機會完整呈現。像他自己在二十多年前玩籃球時就發覺，如果能在鞋底下灌進空氣，一定能夠飛得更高更好；可是在過馬路時常因紅燈突然亮起而心煩不已，就想到為什麼不能在鞋底下加裝時間作提醒。但這兩個點子都被同學、老師笑說是「癡想」。現在看到滿街的氣墊鞋，倒數計時號誌燈，讓徐義權懊惱不已。	Translation

To protect female land crabs as they cross the roads to lay their eggs, the Kenting National Park Administration initiated an activity designed to escort land crabs across the roads.

Figure 1. Language examples retrieved from the bilingual concordancer.

3. Results

The results of this study are presented in three aspects. First, the students' L2 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 error types. Second, the log files of two randomly selected students, S1 of the control group and S10 of the experimental group, were examined in order to understand how the use of the bilingual concordancer and Chinese-English bilingual dictionary can help them avoid negative language transfer. Finally, the students' perceptions toward the bilingual concordancer are reported.

3.1 Students' improvement in L2 writing knowledge between the two groups

A paired-sample *t*-test was conducted to evaluate students' L2 writing in the two groups. For the experimental group, the mean scores increased from 36.32 on the pre-test to 49.33 on the post-test. A significant difference between the pre-and post-test is shown ($t = -3.09, p < .01$). 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 which increased from 39.17 on the pre-test to 46.94 on the post-test. There is a significant difference between the pre-and post-tests ($t = -2.42, p < .03$), with a small effect size ($ES = 0.44$) in writing for the control group. In addition, the results indicate that the student writers' progress may be improved to a greater extent by interacting with a bilingual concordancer. The statistics of error types show that studying the authentic language examples retrieved by the bilingual concordancer about

one's own writing, enabled the students to improve their L2 writing in terms of word choices, sentence patterns, and grammar use.

3.2 Students' revision progress in language transfer between the two groups

S10, selected from the experimental group, represented her revisions by using a bilingual concordance (Table 1). The construction of the four sentences in the first draft was greatly affected by a negative language transfer, at both the lexicon level (spelling and vocabulary) and sentence level (sentence structure). Although not all the revisions were correct, the final draft was marked differently from the first draft. When S10 received her teacher's markings of errors, she revised them by studying the language examples retrieved by the bilingual concordancer. By doing so, her writing could improve because she was able to compare the differences between Chinese and English, and to eliminate the influences of Chinese on English writing. In contrast, S1, selected from the control group, showed her revisions without using a bilingual concordancer. She could not observe how words are related to one another, nor the formation of sentences in a specific context between Chinese and English. The final draft illustrated that she did not benefit much from the use of a Chinese-English online dictionary in correcting errors at the lexicon and sentence levels, and thus suffered from a negative language transfer.

Table 1: S10's text revision in using the bilingual concordancer.

First draft	
<i>When I talk with you was very loud. Because last week I forced important subject's midterm. So when I came home. I wanted to prepare for study this subject immediately.</i>	
Errors identified by the teacher	Translation
when I talk with you was very loud	3
forced	5
because....., so.....	1
prepare for study this subject	1
Final draft	
<i>When I talked with you, I shouted because last week I faced the important midterm of the subject. When I came home, I wanted to prepare for the midterm immediately.</i>	

4. Discussion and conclusion

In order to shed light on how a bilingual concordancer could contribute to students' L2 writing, and reduce the effects of a negative language transfer of L1, this study explored a group of L2 students' use and attitudes towards such a tool, and investigated its effects on their L2 text revisions. The findings of this study suggest that students could improve their L2 text revisions, in terms of word choice, sentence patterns, and grammar use, as they study a bilingual concordance lines to induce the authentic use of collocations and sentence patterns. In contrast, without the aid of authentic language examples, made available by the bilingual concordancer, L2 language learners are more likely to be negatively influenced by a language transfer resulting from the differences between L1 and L2.

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