Pedagogical Implications of Effective Corrective Feedback on L2 Writing

Robert H. Taferner
Hiroshima University

Reference Data:

Taferner, R. H. (2015). Pedagogical implications of effective corrective feedback on L2 writing. In P. Clements, A. Krause, & H. Brown (Eds.), *JALT2014 Conference Proceedings*. Tokyo: JALT.

Longitudinal efficacy of comprehensive direct written corrective feedback (CF) on L2 writing was investigated with the participation of 22 students attending pre-intermediate level EFL courses in Japan. Under controlled conditions they wrote spontaneous, 30-minute timed texts using pictures from children's stories. Participants receiving CF treatment revised their texts using teacher CF, while the control group only wrote texts, then rewrote them to catch any grammatical slips they made. Pretest and delayed posttest (weeks 24 and 39) texts were analyzed for longitudinal changes in the accuracy of articles and prepositions. These results indicate that CF on articles had a significant effect; indefinite article usage improved 35% and definite articles improved by 25%, whereas no change in the accuracy of prepositions was observed. The study showed that comprehensive direct written CF and remedial instruction of article usage is likely to benefit pre-intermediate EFL students' longitudinal L2 grammar development.

準中級レベルの日本人英語学習者22名が書いた英作文に直接訂正フィードバック（CF)を与え、その長期的効果を検証した。実験参加者に予め準備時間は与えず、よく知られている子ども向けの物語の挿絵を見ながら30分間の英作文を課した。作文の中に表出した誤りすべてを指摘、訂正されたグループはそのCFをもとに作文を書き直し、一方でCFを受けなかったグループは自己の英作文に文法的間違いを見つけ、自分で訂正を行いながら書き直しをした。プレテストと遅延ポストテスト（24週間後と39週間後に実施）で書かれた両グループのテキストを分析し、冠詞と前置詞の正確さにおける長期的効果を検証した。結果は、冠詞のCFには有意な効果（不定冠詞は35%、定冠詞は25%の改善）が見られたが、前置詞に関しては変化が見られなかった。本研究は冠詞の使用に対してCFとリメディアル（改善）指導を繰り返し行うことは学習者にとって長期的に有益であると結論づける。

The effectiveness of corrective feedback (CF) on grammatical errors has received much attention from researchers as they have tried to determine how the correction of L2 writing influences learners' grammatical development (e.g., Storch, 2010; Truscott, 1996, 2001, 2004, 2007a, 2007b), particularly in short-term cross-sectional studies (e.g., Ferris & Roberts, 2001; Suh, 2010). The underlying assumption in these studies is that when learners incorporate CF on grammar into their L2 compositions, their future grammar usage is enhanced and maintained in subsequent output (Bitchener & Ferris, 2012; Bitchener & Knoch, 2010a, 2010b; Ferris, 1999, 2012; Ferris, Hsiang, Sinha, & Senna, 2013; Lee, 2011; Sheen, 2010; van Beuningen, de Jong, & Kuiken, 2012). Unfortunately, developmental changes in L2 grammar are unlikely to occur unless learners are ready to process (Ellis, 1990; O'Grady, 2005; Oshita, 2000; Pienemann & Kessler, 2011; Schmidt, 1990; Taferner, 2014; Towell & Hawkins, 1994), use, and maintain a grammatical feature with

minimal instructional intervention (e.g., CF on grammar errors). Logically, when CF is proven to be an effective intervention for long-term acquisition, *focus on forms* (see Long & Robinson, 1998) preemptive classroom instruction is also likely to be efficacious for those identified grammatical items (as seen in Andringa, de Glopper, & Hacquebord, 2011).

It is also important to identify grammatical items which do not maintain the effects of CF over the long term, since ineffective CF would constitute a misuse of valuable instructor time that could be used for other instructional activities, as initially proposed by Truscott (1996). This can be seen in an example of ineffective grammar instruction demonstrated by Shirahata, Shibata, and Taferner (2013). In their study, a test of systematicity (i.e., orders of acquisition of grammatical features; see Dulay & Burt, 1973, p. 256) was conducted to investigate the morpheme acquisition order of progressive, irregular past, regular past, and third person singular. Grammar instruction on third person singular was provided and monitored for its cross-sectional and longitudinal effects. In the Immediate Posttest, the accuracy of third person singular was higher than the other verbal morphemes under study. However, in the Delayed Posttest, the third person singular reverted back to its original accuracy level and position within an apparent order of acquisition, demonstrating that systematicity may influence the uptake of explicit grammar instruction and grammar acquisition. It is therefore important to test the longitudinal impact of CF on grammar in order to improve efficacy of L2 writing instruction. If systematicity under conditions of CF on L2 writing can be established, the scheduling of which grammar items to effectively correct for a particular proficiency level may be possible.

In this present study, two grammatical items that are particularly difficult for Japanese learners of English (JLEs), articles and prepositions (Akakura, 2012; Butler, 2002; DeKeyser, 2005; Ogawa, 2008), were chosen to confirm whether or not CF treatments would have an impact on their subsequent usage in future L2 texts (e.g., Ellis, R., Sheen, Y., Murakami, M., & Takashima, H., 2008; Sheen, 2007). In the case of longitudinal effects of CF on articles, Bitchener and Knoch (2010a) found indirect CF not effective, whereas the application of direct CF (Bitchener & Knoch, 2010b) resulted in improved accuracy rates. The application of CF on prepositions did not have an effect on accuracy rates, nor did its effects vary according to CF type over a period of 12 weeks (Bitchener, Young, & Cameron, 2005). For a thorough description of the various types of CF measures, see Ellis (2009). In addition, these three longitudinal studies did not require participants to use the CF they received to revise their texts, but only required them to read the CF. This lack of extra processing may have had a limiting influence on learning and retaining the corrected grammar items. It was also argued by van Beuningen et al. (2012) that the use of comprehensive direct written CF is an effective approach to advance long-term grammar accuracy.

Taking into account the issues raised in the literature, the purpose of this study was to identify grammatical items that may or may not benefit longitudinally from comprehensive direct written CF treatment. The corrected sentence 1b below shows how comprehensive direct written CF is applied to a learner's sentence (1a) that has errors. In the original sentence 1a, lexical choice, use of articles, tense, and the selection of the appropriate preposition are all possible candidates for the application of CF to produce a revised sentence (1c). Since the focus of this study is on articles and prepositions, these concerns will be addressed in the examples presented.

1a. Original sentence: One day night, the boy and the dog bring the frog in his room.

1b. Corrected sentence: One ~~day~~ night, ~~the~~ a boy and ~~the~~ a dog ~~bring~~ brought ~~the~~ a frog in his room.

1c. Possible final sentence: One night, a boy and a dog brought a frog in his room.

The three uses of the definite article were corrected to the indefinite article, as it was the first mention of these characters in the story. Regarding the use of the preposition *in* to reflect motion, either *in* or *into* is commonly used to describe movement, e.g., *bring the dog in/into his room*. Therefore, no change would be recommended to the writer. As it is common classroom practice by instructors to correct all errors, comprehensive direct written CF was chosen as the appropriate CF treatment on written texts to demonstrate the effectiveness of CF. While all errors were corrected, this study only analyzed articles and prepositions for the effectiveness of CF.

To investigate the effectiveness of CF in improving accuracy on the use of two grammatical items in L2 writing, the following two research questions were proposed:

1. Does the application of comprehensive direct written CF on L2 writing have an effect on learners' longitudinal accuracy of article usage in subsequent L2 texts?
2. Does the application of comprehensive direct written CF on L2 writing have an effect on learners' longitudinal accuracy of preposition usage in subsequent L2 texts?

Methodology

Participants

The participants in this study were 22 first-year university students attending two intact yearlong EFL classes in Japan. These non-English majors were enrolled in pre-intermediate level English courses over a period of two school terms, approximately 10 months, from April 2013 to early February 2014. Students (approximate TOEIC scores = 350) were separated into a Treatment Group (n = 11) and a comparison Control Group (n = 11). The Treatment Group received CF on their writing while the Control Group wrote and revised the same number of texts as the Treatment Group, without the aid of teacher CF. During the period of this study these JLEs were only enrolled in one English course, and thus received no other formal English instruction.

Task Design

The writing task used in this study generally followed the work of many previous researchers (e.g., Berman & Slobin, 1994; Bitchener, 2008; Bitchener & Knoch, 2009; Ellis et al., 2008; Fathman & Whalley, 1990; Sheen, 2010; Truscott & Hsu, 2008). These researchers have often employed standardized extended-production writing tasks (see Purpura, 2004) under controlled classroom conditions so as to limit as many confounding factors as possible while attempting to monitor L2 grammar development. In the case of the present study, five different picture stories were used. From each of these stories, 10 pictures were selected and bilingual vocabulary items for each picture were provided to elicit 30 minutes of spontaneous writing. As in many previous studies, no explicit grammar instruction, detailed writing prompts dictating grammar usage, or dictionaries were provided to the participants during the writing tasks so as to control for confounding factors.

Data Collection

For this study, the data from spontaneous, 30-minute extended-production texts were analyzed to determine whether or not students could develop and maintain longitudinal article and preposition accuracy. The schedule of writing tasks selected for the study is presented in Table 1. In Week 1, TOEIC scores of the participants were elicited and the Pretest was administered. The Pretest (Week 1), Delayed Posttest 2 (Week 24), and Delayed Posttest 3 (Week 39) were selected to examine the longitudinal effects of CF. The same text (*Frog, Where Are You?* Mayer, 1969) was chosen for each test to ensure task effects remained the same for the longitudinal part of the experiment. Counter-balanced treatment stories included *Helen Keller* (Hirata, 2011) and *Little Red Riding Hood* (Hirata, 2012a). The Immediate Posttest (Week 9) used the story of *Cinderella* (Hirata, 2013) and the Delayed Posttest 1 (Week 15) used *The Three Little Pigs* (Hirata, 2012b).

Table 1. Schedule of Writing Tasks

Week	Writing task
1	Pretest: *The Frog Story*
3-4	Counter-balanced Writing Task 1 & Revision/Rewriting
7-8	Counter-balanced Writing Task 2 & Revision/Rewriting
9	Immediate Posttest: *Cinderella*
15	Delayed Posttest 1: *The Three Little Pigs*
24	Delayed Posttest 2: *The Frog Story*
39	Delayed Posttest 3: *The Frog Story*

The Treatment Group participants received two treatments of comprehensive direct written CF on their stories and revised their texts accordingly. The CF treatment consisted of the correction of all errors in their texts. When an error was found, the error was crossed out and the appropriate form was provided. After the texts were corrected, they were returned to the Treatment Group participants the following week in their next English class. The texts were then revised within 30 minutes using the CF provided.

In contrast, the Control Group rewrote their texts without the aid of CF, to identify if a nontreatment task effect (e.g., cognitive overload, natural SLA processes, task repetition) may have had an influence on language development. An issue of contention in earlier L2 writing CF studies is the ethical reasoning that conducting classroom-based quasi-experimental studies with a control group deprives the nontreatment participants of learning opportunities. However, by not including a comparison control group, it is difficult to determine if CF on a composition actually facilitated grammar changes in revised compositions or if natural SLA processes alone contributed to learners' development. It is likely that nonintervention in "meaning-focused classrooms can promote grammar ability no less than traditional classrooms" (Purpura, 2004, p. 33), for lower levels of SLA. In addition, the establishment of a comparable control group is essential, as it is possible that developmental readiness to learn and acquire grammatical features may be dependent on learner level (Pienemann & Kessler, 2011). Therefore, it is important for the participants in the control group not to receive any grammar instruction so as to test the hypothesis that meaning-focused instruction alone could promote grammar ability and also to compare changes in accuracy with the group receiving CF treatment.

Results and Data Analysis

After the experiment was completed, the Pretest, Delayed Posttest 2, and Delayed Posttest 3 texts were coded for changes in grammatical accuracy. Grammar accuracy rates were determined by counting all of the errors of a targeted grammar item and dividing it by the total number of times that grammar item was used in the text. The two groups were found to have similar initial grammatical accuracy rates on articles (a/an $p = .470$; the $p = .611$) and prepositions ($p = .162$) in the Pretest writing task through the analysis of t-test scores ($p > .05$). Therefore, it was determined that these groups were comparable at the beginning of the study. To be consistent with previous L2 writing research on CF, grammar accuracy data were simply combined and averaged (see, e.g., Kassim & Ng, 2014). That is, as in previous studies, indefinite articles, definite articles, and prepositions were coded into broad categories, but further subcategorization of the grammar items was not performed.

Table 2. Treatment Group: Pretest Grammar Accuracy Scores and Frequency (*f*) (*n* = 11)

Participant	Grammar item					
	a/an	(*f*)	*the*	(*f*)	Prepositions	(*f*)
P1	53.85%	(13)	88.89%	(18)	87.50%	(16)
P2	12.50%	(8)	8.33%	(12)	90.9%	(11)
P3	10.00%	(10)	55. 56%	(9)	76.92%	(13)
P4	11.11%	(9)	61.54%	(13)	76.92%	(13)
P5	20.00%	(5)	80.00%	(10)	75.00%	(8)
P6	9.09%	(11)	64.71%	(17)	78.95%	(19)
P7	14.29%	(7)	9.09%	(22)	77.78%	(18)
P8	0.00%	(11)	16.67%	(6)	100.00%	(14)
P9	66.67%	(12)	68.75%	(16)	95.65%	(23)
P10	14.29%	(7)	66.67%	(9)	76.92%	(13)
P11	54.55%	(11)	76.67%	(30)	78.57%	(14)
M	24.21%	(9.45)	54.13%	(14.73)	83.19%	(14.73)
SD	22.68	(2.46)	30.65	(6.92)	8.77	(4.10)

To determine the effect of CF on articles and prepositions, descriptive and frequency analyses were conducted on participants' grammar accuracy rates. The data in Tables 2, 3, and 4 show the accuracy rates and item frequencies of each of the participants. Displaying participants' data in this manner was done to illustrate the wide range of accuracy values and frequencies that resulted and to show that these data do not provide clear details about the grammar items that were analyzed.

Table 3. Treatment Group: Delayed Posttest 2 Grammar Accuracy Scores and Frequency (*f*) (*n* = 11)

Participant	Grammar item					
	a/an	(*f*)	*the*	(*f*)	Prepositions	(*f*)
P1	81.82%	(11)	93.75%	(16)	93.75%	(16)
P2	75.00%	(8)	77.78%	(9)	80.00%	(15)
P3	64.29%	(14)	77.78%	(9)	75.00%	(16)
P4	80.00%	(10)	86.96%	(23)	65.38%	(26)
P5	20.00%	(10)	61.54%	(13)	81.25%	(16)
P6	70.00%	(10)	100.00%	(12)	76.47%	(17)
P7	0.00%	(12)	0.00%	(29)	86.11%	(36)
P8	50.00%	(12)	33.33%	(6)	68.00%	(25)
P9	81.82%	(11)	89.66%	(29)	59.09%	(22)
P10	53.85%	(13)	76.92%	(26)	89.47%	(19)
P11	60.00%	(10)	82.61%	(23)	76.92%	(13)
M	57.89%	(11.00)	70.94%	(17.73)	77.40%	(20.09)
SD	26.43	(1.67)	29.62	(8.52)	10.42	(6.73)

Participant 7 in particular is an interesting case since article accuracy rates diverged greatly throughout the study. A closer look at P7's article usage in Delayed Posttest 2 (see sentence 2a below) reveals that the learner could not distinguish between the use of the definite article or indefinite article when first introducing the main characters in the first picture of *The Frog Story* (see Appendix). In addition, there are two article omissions in the latter half of sentence 2b. In example sentences 3a and 4a, the learner omits all articles. When calculating article errors, if an article was misused or omitted, it was counted as error and included in the total number of articles within the text.

2a. *The boy caught the frog and he take frog into jar.

2b. A boy caught a frog and he put the frog into a jar.

3a. *At midnight, frog climbed wall of jar.

3b. At midnight, the frog climbed the wall of the jar.

4a. *Boy climb onto big stone using branch to watch longer distance.

4b. The boy climbed onto a big stone using a branch to ~~watch~~ see a longer distance.

Table 4. Treatment Group: Delayed Posttest 3 Grammar Accuracy Scores and Frequency (*f*) (*n* = 11)

Participant	Grammar item					
	a/an	(*f*)	*the*	(*f*)	Prepositions	(*f*)
P1	61.54%	(13)	79.17%	(24)	85.71%	(14)
P2	44.44%	(9)	68.75%	(16)	76.92%	(13)
P3	54.55%	(11)	91.30%	(23)	61.54%	(13)
P4	85.71%	(14)	80.95%	(21)	86.36%	(22)
P5	30.00%	(10)	64.29%	(14)	64.29%	(14)
P6	62.50%	(8)	88.89%	(9)	93.75%	(16)
P7	50.00%	(12)	51.61%	(31)	75.00%	(28)
P8	92.86%	(14)	91.67%	(12)	61.90%	(21)
P9	93.75%	(16)	95.83%	(24)	78.57%	(28)
P10	58.33%	(12)	73.68%	(19)	88.89%	(9)
P11	12.50%	(8)	89.66%	(29)	100.00%	(14)
M	58.74%	(11.55)	79.62%	(20.18)	79.36%	(17.45)
SD	25.30	(2.62)	13.81	(6.94)	12.99	(6.36)

In an example from Delayed Posttest 3, the first mention of the *pond* in sentence 5 uses the indefinite article appropriately. Once the *pond* has been introduced, subsequent usage calls for a definite article, as seen in sentence 6a. However, other errors such as the omission (or underusage) of the definite article still persist. A review of the all the Delayed Posttest 2 and Delayed Posttest 3 texts of all of the participants revealed only three cases of an article being used when no article was necessary. Thus, overusage of articles appeared not to be an issue with the pre-intermediate JLEs in this study.

5. He was dropped into a pond.

6a. *He found voice of frog in the pond.

6b. He ~~found~~ heard the voice of the frog in the pond.

Summaries of grammar accuracy for the Treatment Group and Control Group for the Pretest, Delayed Posttest 2, and Delayed Posttest 3 are shown in Tables 5 and 6. In tabulating the data, once again large differences in grammatical item usage between the participants were seen. In Table 5, CF treatment resulted in significant changes in indefinite (Delayed Posttest 2 $p = .003$; Delayed Posttest 3 $p = .010$) and definite article (Delayed Posttest 3 $p = .025$) accuracy, as demonstrated by *t*-test scores ($p < .05$), whereas little change in preposition accuracy (Delayed Posttest 2 $p = .258$; Delayed Posttest 3 $p = .483$) was found. The *t*-test results for definite article usage in the Delayed Posttest 2 ($p = .068$) did not show a significant difference. This was mainly due to the influence of P7's accuracy rate of 0%. When not including P7's data for Delayed Posttest 2, a result of $p = .048$ was calculated. The increase in grammar accuracy of indefinite articles for the Treatment Group from the Pretest to the Delayed Posttest 2 was approximately 34% and was maintained in Delayed Posttest 3 with a difference of 35% between the Pretest and Delayed Posttest 3 scores. Definite article accuracy rose by 17% over the Pretest score in Delayed Posttest 2 and continued to rise

by about 25% in Delayed Posttest 3. Prepositions of time, place, motion, state, and phrasal verbs were identified, but not further analyzed.

Table 5. Treatment Group: Summary of Grammar Accuracy and Item Frequency (*f*) Mean Scores (*n* = 11)

Test	Grammar item					
	a/an	(*f*)	*the*	(*f*)	Prepositions	(*f*)
Pretest	24.21%	(9.45)	54.13%	(14.73)	83.19%	(14.73)
SD	22.68	(2.46)	30.65	(6.92)	8.77	(4.10)
Delayed Post-test 2	57.89%	(11.00)	70.94%	(17.73)	77.40%	(20.09)
SD	26.43	(1.67)	29.62	(8.52)	10.42	(6.73)
Delayed Post-test 3	58.74%	(11.55)	79.62%	(20.18)	79.36%	(17.45)
SD	25.30	(2.62)	13.81	(6.94)	12.99	(6.36)

Changes in participants' grammatical accuracy in the Control Group are summarized in Table 6. These results reveal that articles and prepositions do not change very much through the practice of only writing and rewriting.

Table 6. Control Group: Summary of Grammar Accuracy and Item Frequency (*f*) Mean Scores (*n* = 11)

Test	Grammar item					
	a/an	(*f*)	*the*	(*f*)	Prepositions	(*f*)
Pretest	17.59%	(9.36)	45.88%	(15.09)	74.52%	(13.45)
SD	21.86	(3.64)	28.88	(6.69)	17.59	(4.18)
Delayed Post-test 2	25.64%	(10.55)	54.28%	(18.45)	67.65%	(16.73)
SD	26.72	(1.51)	34.54	(5.63)	18.68	(5.93)
Delayed Post-test 3	16.74%	(10.55)	59.56%	(19.00)	73.51%	(20.82)
SD	25.37	(2.50)	18.14	(4.54)	11.58	(5.49)

Interestingly, writing practice alone appears to have influenced the accuracy of definite article usage by the Control Group as accuracy increased approximately 9% over the experimental period as seen in Delayed Posttest 2 and almost 14% in Delayed Posttest 3. However, *t* tests revealed no significant differences between the Pretest and delayed posttests ($p > .05$).

Discussion

The research questions in this study addressed the ability of comprehensive direct written CF on L2 writing to affect learners' longitudinal accuracy of article and preposition usage in subsequent L2 texts. The main results of the CF treatment in this study indicate that the accuracy of articles can be influenced and maintained longitudinally through the application of comprehensive direct written CF on two writing tasks. In contrast, CF on prepositions did not result in improvement in accuracy in future writing tasks. For the Control Group, the meaning-focused writing tasks used in

this experiment did not appear to promote improvements in article and preposition ability, thus countering Purpura's (2004) belief that grammar intervention is not necessary to improve lower level learner's grammar abilities. These results suggest that the application of incidental CF treatments utilized in this experiment were successful in establishing that pre-intermediate EFL learners' grammar abilities are systematically acquired in classroom contexts. Specifically, through the application of CF, participants were able to learn to distinguish indefinite and definite article usage and enhance their article accuracy, while prepositions were not improved.

One possible explanation for the increase in definite article usage and accuracy may be due to repeated exposure to the same writing prompt leading to a practice effect (see Bygate, Skehan, & Swain, 2001). As learners are presented the same story repeatedly, they may gain familiarity with the characters, contextual features, and events, such that their notion of definiteness (see Butler, 2002; Ogawa, 2008) in the story influences their choice of article. However, change in article accuracy was determined to be not significant ($p > .05$) for the Control Group. This comparison with the Control Group confirms that under the treatment conditions of this study, CF on L2 writing may have contributed to the longitudinal development of articles for these pre-intermediate JLEs.

These results regarding article usage are quite surprising, as article usage has been established to be very difficult for JLEs. A possible reason for this difficulty is the influence of the first language, as the Japanese language does not have articles. During grammar exercises in secondary school, it seems likely that training in article usage is not emphasized enough, which contributes to students' difficulties in article usage. The gains in article accuracy seen in this study represent gaps in language development that can be remedied, indicating that further pedagogical refinements are in order. In particular, instruction emphasizing the necessity of an article and the notion of definiteness should be included in pedagogical design. On the other hand, pre-intermediate JLEs may generally find that prepositions are too complicated to use accurately when the cognitive load of the writing task takes most of their attention. A closer look at which prepositions in particular are developed more easily than others is necessary to establish if developmental stages exist for JLEs, in order to refine pedagogical treatments.

While the results of this study are promising, there were a number of confounding factors that need to be addressed. Possibly the most important of these is the questionable reliability of the data obtained due to the nature of the writing tasks. It is highly unlikely that spontaneous writing tasks can completely control for grammar item frequency or create an obligatory context in which the learner must use targeted grammar in a specific manner, as seen in the wide variation of results for individual participants. This makes the comparison of data between participants or writing tasks extremely difficult. Also, the small size of the study, only 22 participants, could influence data reliability. A larger study is necessary to confirm the results of this investigation.

Although a number of limitations of this study are present, the results and discussion presented here may lead to the enhancement of the practice of CF on L2 writing and on CF research methodology. In particular, the approach of determining participants' changes in grammar accuracy after the application of CF on writing through pretest and posttest textual analysis should be reevaluated to ensure that grammar item type and frequency are consistent. In addition, ongoing theoretical discussions and empirical investigations should be continued in order to advance our present understanding of the effectiveness of CF on L2 grammar development especially when CF is found to result in longitudinal acquisition.

Conclusion

This study investigated the application of comprehensive direct written CF on L2 writing for the longitudinal development of articles and prepositions for pre-intermediate JLEs. The findings

suggest that articles are more longitudinally receptive to CF than are prepositions. This result suggests that the successful application of CF on L2 writing is dependent on grammar accuracy improvements that can be maintained in the long term. Therefore, a more focused systematic approach to the provision of CF in the classroom is supported to enhance its effectiveness. For future investigations of CF on L2 writing, three main areas of focus have become apparent: theoretical concerns for the application of CF on writing for grammar development, focus-on-forms grammar instruction, and improvements in research design.

According to SLA research (e.g., Ellis, 1990; Pienemann & Kessler, 2011; Towell & Hawkins, 1994), learners generally develop their grammar knowledge very slowly over a long period of time. If indeed the incidental application of CF on writing has such a profound effect on language development, as it appears to with CF on articles, revisiting whole classroom instruction in search of improvements in pedagogical design may be in order. Another research focus should be the systematicity of grammar acquisition with regard to the receptivity of learners to learn and apply CF for longitudinal language development.

Follow-up to the findings of this study, the development of focus-on-forms grammar exercises that provide detailed explanations about the use of articles (e.g., Butler, 2002; Sheen, 2007), and create opportunities to use articles within contexts that make clear distinctions between indefinite and definite article usage are necessary to enhance current pedagogical practices. These grammar exercises should be trialed as part of regular classroom instruction to test the receptiveness of learners to acquire, use, and longitudinally maintain this knowledge in their interlanguage.

Finally, improvements in research design need to be considered. In order to observe the effects of CF in learners' interlanguage, improvements in data elicitation instruments are needed. In particular, the design of writing tasks that elicit specific grammatical features is a topic that requires further development (see Alderson, Clapham, & Wall, 1995; Bygate et al., 2001; Pienemann & Kessler, 2011; Purpura, 2004; Robinson, 2001, 2011). To overcome this shortcoming in research design, a mixed methods approach that tests grammar knowledge by incorporating obligatory grammar usage exercises should be administered alongside the analysis of students' texts to assess gains in L2 grammar development as a result of CF on writing. In addition, experiments should be longitudinal to see if the effects of CF are maintained.

In conclusion, this study has raised many issues concerning the purpose and application of CF on L2 writing in general. Continued investigations into CF practices and improvements in grammar instruction are likely to continue to reveal many thought-provoking insights into L2 writing pedagogical practices.

Bio Data

Robert H. Taferner has been teaching English in Japan since 1993. He holds a MAT-TESOL from the School for International Training in Vermont, USA. His research interests include pragmatics, second language acquisition, and materials development.
<robert_taferner@yahoo.ca>

Acknowledgements

I would like to thank Tomohiko Shirahata of Shizuoka University for his valuable advice in designing this study and our frequent discussions regarding the effects of explicit grammar treatment on second language learning.

References

Akakura, M. (2012). Evaluating the effectiveness of explicit instruction on implicit and explicit L2 knowledge. *Language Teaching Research, 16*, 9-37.

Alderson, J. C., Clapham, C., & Wall, D. (1995). *Language test construction and evaluation.* Cambridge: Cambridge University Press.

Andringa, S., de Glopper, K., & Hacquebord, H. (2011). Effect of explicit and implicit instruction on free written response task performance. *Language Learning, 61*, 868-903.

Berman, R. A., & Slobin, D. I. (1994). *Relating events in narrative: A crosslinguistic developmental study*. Hillsdale, NJ: Erlbaum.

Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing, 17*, 102-118.

Bitchener, J., & Ferris, D. R. (2012). *Written corrective feedback in second language acquisition and writing*. New York: Routledge.

Bitchener, J., & Knoch, U. (2009). The relative effectiveness of different types of direct written corrective feedback. *System, 37*, 322-329.

Bitchener, J., & Knoch, U. (2010a). Raising the linguistic accuracy level of advanced L2 writers with written corrective feedback. *Journal of Second Language Writing, 19*, 207-217.

Bitchener, J., & Knoch, U. (2010b). The contribution of written corrective feedback to language development: A ten month investigation. *Applied Linguistics, 31*, 193–214.

Bitchener, J., Young, S., & Cameron, D. (2005). The effect of different types of feedback on ESL student writing. *Journal of Second Language Writing, 14*, 191-205.

Butler, Y. G. (2002). Second language learner's theories on the use of English articles: An analysis of the metalinguistic knowledge used by Japanese students in acquiring the English article system. *SSLA, 24*, 451-480.

Bygate, M., Skehan, P., & Swain, M. (Eds.). (2001). *Researching pedagogic tasks: Second language learning, teaching and testing*. Essex: Pearson Education.

DeKeyser, R. M. (2005). What makes learning second-language grammar difficult? A review of the issues. *Language Learning, 55*, 1-25.

Dulay, H. C., & Burt, M. K. (1973). Should we teach children syntax? *Language Learning, 23,* 245-258.

Ellis, R. (1990). *Instructed second language acquisition.* Oxford: Basil Blackwell.

Ellis, R. (2009). A typology of written corrective feedback types. *ELT J, 63*, 97-107.

Ellis, R., Sheen, Y., Murakami, M., & Takashima, H. (2008). The effects of focused and unfocused written corrective feedback in an English as a foreign language context. *System, 36*, 353-371.

Fathman, A., & Whalley, E. (1990). Teacher response to student writing: Focus on form versus content. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 178-190). Cambridge: Cambridge University Press.

Ferris, D. (1999). The case of grammar correction in L2 writing classes: A response to Truscott (1996). *Journal of Second Language Writing, 8*, 1-11.

Ferris, D., & Roberts, B. (2001). Error feedback in L2 writing classes. How explicit does it need to be? *Journal of Second Language Writing, 10*, 161-184.

Ferris, D. R. (2012). Written corrective feedback in second language acquisition and writing studies. *Language Teaching, 45*, 446459.

Ferris, D. R., Hsiang, L., Sinha, A., & Senna, M. (2013). Written corrective feedback for individual L2 writers. *Journal of Second Language Writing, 22*, 307-329.

Hirata, S. (2011). *Helen Keller*. Tokyo: Kabushigaisha Popura.

Hirata, S. (2012a). *Little Red Riding Hood*. Tokyo: Kabushigaisha Popura.

Hirata, S. (2012b). *The three little pigs*. Tokyo: Kabushigaisha Popura.

Hirata, S. (2013). *Cinderella*. Tokyo: Kabushigaisha Popura.

Kassim, A., & Ng, L. L. (2014). Investigating the efficacy of focused and unfocused corrective feedback on the accurate use of prepositions in written work. *English Language Teaching, 7*, 119-130.

Lee, I. (2011). Working smarter, not working harder: Revisiting teacher feedback in the L2 writing classroom. *The Canadian Modern Language Review, 67*, 377-399.

Long, M. H., & Robinson, P. (1998). Focus on form: Theory, research and practice. In Doughty, C. J., & Williams, J. (Eds.), *Focus on form in second language acquisition* (pp. 15-41). Cambridge: Cambridge University Press.

Mayer, M. (1969). *Frog, where are you?* New York: Dial Press.

Ogawa, M. (2008). The acquisition of English articles by advanced EFL Japanese learners: Analysis based on noun types. *Journal of Language and Culture Language and Information, 3*, 133-151. Department of Language and Culture, School of Humanities and Social Sciences, Osaka Prefecture University.

O'Grady, W. (2005). *How children learn language*. Cambridge: Cambridge University Press.

Oshita, H. (2000). What is happened may not be what appears to be happening: A corpus study of passive unaccusatives in L2 English. *Second Language Research, 16,* 293-324.

Pienemann, M., & Kessler, J.-U. (Eds.). (2011). *Studying processability theory*. Amsterdam: John Benjamins.

Purpura, J. E. (2004). *Assessing grammar*. Cambridge: Cambridge University Press.

Robinson, P. (2001). Task complexity, task difficulty, and task production: Exploring interactions in a componential framework. *Applied Linguistics, 22*, 27-57.

Robinson, P. (2011). Task-based language learning: A review of the issues. *Language Learning, 61*, 1-36.

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*, 129-158.

Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learner's acquisition of articles. *TESOL Quarterly, 41*, 255-283.

Sheen, Y. (2010). Differential effects of oral and written corrective feedback in the ESL classroom. *Studies in Second Language Acquisition, 32,* 203-234.

Shirahata, T., Shibata, M., & Taferner, R. H. (2013). Persistency of morpheme acquisition sequence in contrast to oral metalinguistic explanations and direct written correct feedback for Japanese EFL learners. *Proceedings of ALAK 2013 (Applied Linguistics Association Korea)*, 311-316.

Storch, N. (2010). Critical feedback on written corrective feedback research. *International Journal of English Studies, 10*, 29-46.

Suh, B. R. (2010). *Written feedback in second language acquisition: Exploring the roles of type of feedback, linguistic targets, awareness, and concurrent verbalization* (Unpublished doctoral dissertation). Georgetown University, Washington, D.C.

Taferner, R. H. (2014). Corrective feedback for second language acquisition: A research and practice perspective. *SLWIS Newsletter, September 2014*, TESOL. Retrieved from http://newsmanager.commpartners.com/tesolslwis/issues/2014-09-24/3.html

Towell, R., & Hawkins, R. (1994). *Approaches to second language acquisition*. Clevedon, UK: Multilingual Matters.

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46,* 327-369.

Truscott, J. (2001). Selecting errors for selective error correction. *Concentric: Studies in English Literature and Linguistics, 27*, 93-108.

Truscott, J. (2004). Dialogue: Evidence and conjecture on the effects of correction: A response to Chandler. *Journal of Second Language Writing, 13*, 337-343.

Truscott, J. (2007a). The effect of error correction on learners' ability to write accurately. *Journal of Second Language Writing, 16*, 255-272.

Truscott, J. (2007b). Grammar teaching and the evidence: A response to Nassaji and Fotos (2004). *International Journal of Foreign Language Teaching, 3*, 10-22.

Truscott, J., & Hsu, A. Y. (2008). Error correction, revision, and learning. *Journal of Second Language Writing, 17*, 292-305.

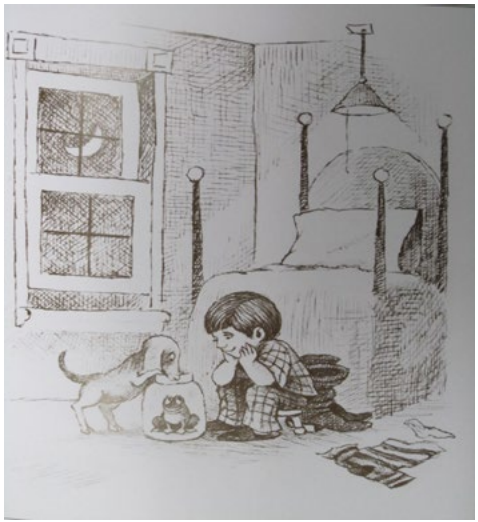
van Beuningen, C. G., de Jong, N. H., & Kuiken, F. (2012). Evidence on the effectiveness of comprehensive error correction in second language writing. *Language Learning, 62*, 1-41.

Appendix

The Frog Story Writing Prompt and Picture 1

Writing Prompt 作文の課題: The Frog Story

Look at the pictures and write a story within 30 minutes. Try to write at least 15 sentences and do not use a dictionary. 絵を見て物語を書いてください。時間は30分間です。物語は15文以上で書いてください。つまり、少なくても15文は書くようにしてください。なお、辞書は使わないでください。

Frog, Where Are You? (Mayer, 1969) Picture 1 (写真 1)	*The Frog Story* Vocabulary (単語) Picture 1 (写真 1)	
	日本語	英語
	かえる	frog
	ペット	pet
	ビン	jar
	ベッドルーム、寝室	bedroom