The relative effects of metalinguistic explanation and direct written corrective feedback on children's grammatical accuracy in new writing

Mary Gorman and Rod Ellis
University of Auckland | Curtin University

There has been little research investigating the effects of form-focused instruction (FFI) on the second language acquisition of children. This article reports a quasi-experimental study of integrated form-focused instruction for 33 children aged 9–12 years. They completed four dictogloss tasks designed to elicit the use of the Present Perfect Tense and received instruction consisting of either explicit metalinguistic explanation (group 1), direct written correction (group 2) or no form-focused instruction (the comparison group) between performing the tasks. Accuracy in the production of the target structure across the four tasks was variable and showed no improvement from the first to the last. Nor were there any statistically significant differences in accuracy among the three groups. The results support some earlier studies of young children (e.g. Fazio, 2001) that have failed to show that FFI benefits young children. This may be because children fail to make use of their metalinguistic knowledge of grammatical features when undertaking meaning-focused writing tasks.

Keywords: children, form-focused instruction, metalinguistic information, written corrective feedback, acquisition

1. Introduction

Little research has investigated the effects of form-focused instruction (FFI) on young second language learners' acquisition of grammar (Bouffard & Sarkar, 2008). For example, only 21% of the 77 studies of form-focused instruction included in Norris and Ortega's (2000) often-cited meta-analysis involved children. One reason for the lack of studies of young learners is the belief that they

are better suited to implicit than explicit learning and thus are not likely to benefit from form-focused instruction.

In the study reported in this article, we investigated the effects of two ways of incorporating form-focused instruction (FFI) into meaning-based activities in what Spada and Lightbown (2008) have called integrated FFI. We asked children to complete four dictogloss tasks and after the first and the second tasks we provided them with either metalinguistic information about the target structure (Present Perfect Tense) or direct written corrective feedback on their errors in the use of this tense. The aim was to investigate whether FFI led to increased accuracy in a specific target structure in new writing, thus challenging Truscott's (1996) dismissal of such a role and, secondly, which type of FFI (metalinguistic explanation or direct corrective feedback) was the more effective.

1.1   Metalinguistic explanation

There are many differences between children and adults that can influence their ability to benefit from metalinguistic descriptions of grammatical structures. Adults have advanced to the stage of formal operations which enables them to process abstract information and to engage in deductive reasoning (Inhelder & Piaget, 1958). Older language learners have also developed literacy skills and have had more experience of engaging with written tasks that require a focus on form. In contrast, younger children are believed to be better at implicit and incidental language learning. They are more likely to treat language as a tool for making meaning than as an object that can be studied and analyzed. They have less developed literacy skills. The fact that older learners can benefit more easily from metalinguistic information may be one reason why they have been shown to learn an L2 more rapidly than younger learners, at least in the initial stages (Muñoz, 2006).

However, children aged 9–12 (the age of the children in our study) can develop explicit knowledge of grammatical features and there is some evidence that instruction can help them to do so. Some studies involving L1-speaking children have reported positive results for explicit grammar instruction. Bryant, Devine, Ledward & Nunes (1977), for example, found that the direct teaching of the apostrophe helped children to develop a clear awareness of its use and improved their accuracy. Myhill, Jones, Watson and Lines (2013) reported a beneficial effect of explicit instruction directed at enabling young students (aged 10–11) to make informed choices about the grammatical forms they needed to encode specific meanings in writing. Drawing on the same study, Myhill, Jones and Wilson (2016) emphasized the importance of teacher guidance and dialogic talk in developing metalinguistic knowledge that students could deploy effectively in writing. In contrast, Andrews et al.'s (2004) review of 10 studies of

grammar teaching involving traditional sentence analysis found that it did not lead to greater accuracy in students' writing. The differing results have fueled the long-running debate about the role of grammar in writing instruction for young learners but as Myhill et al. (2013) pointed out this debate has been conducted without taking account of how the teaching of grammar is linked to the practice of writing.

Much of the FFI research involving L2 child learners was carried out within the context of immersion classrooms. It was aimed at helping the learners to acquire those grammatical features that were resistant to implicit learning despite extensive exposure to the L2 – for example, grammatical gender in French (Harley, 1998), L2 English question formation (White, Spada, Lightbown & Ranta, 1991), and English possessive determiners (White & Ranta, 2002). These studies all demonstrated that the instruction led to gains in the learners' ability to use these grammatical structures more accurately. However, as Hanan (2015) noted, the children in these studies were not reliant on just explicit instruction as they also experienced large amounts of input in their immersion classrooms, which may have helped to reinforce the effects of the instruction.

Hanan's own study investigated the effects of explicit instruction on the acquisition of two German grammatical structures on 9–11 year old learners in a foreign language classroom. In accordance with the requirements of Processing Instruction (VanPatten, 1996), the instruction consisted of explicit information about the target features and the processing problems these involved followed by structured input activities. Hanan reported that the children were able to verbalize their knowledge of the target structures and to make use of this knowledge in both untimed written tasks and time-pressured oral tasks. Other Processing Instruction studies (e.g. Laval, 2013) have also shown that Processing Instruction is effective with children. However, none of these studies included a metalinguistic-information-only condition so it is not possible to tell to what extent the explicit information contributed to learning. Studies with adults (e.g. VanPatten & Oikennon, 1996), however, have shown that structured input activities alone can be sufficient for learning to take place.

In our study we investigated whether there was any benefit in providing children just with metalinguistic information in between performing meaning-focused production tasks.

1.2   Written corrective feedback (WCF)

Arguments against correcting children's errors are the same as those for avoiding metalinguistic explanation. Children's ability to analyse and think about language in abstract ways only emerges towards the end of primary school (Pinter, 2006),

which suggests that WCF might not be appropriate for younger learners. In instructional contexts where the primary focus is on meaning (e.g. immersion classrooms), young learners do not consistently pay attention to oral corrective feedback (Lyster & Ranta, 1997). Young learners may be unable or disinclined to engage in the analysis needed to develop an understanding of the errors they have committed and the corrections they have been given. Even if they do undertake this analysis, they may fail to use the knowledge they have gained in meaning-focused writing activities. For this reason WCF may have no effect on the errors they make in new pieces of writing.

On the other hand, there are grounds for claiming that WCF may be worthwhile for young learners. There is evidence that children do in fact have the ability to attend to form. In oral corrective feedback studies, where the feedback has been made explicit (e.g. Ammar & Spada, 2006; Lyster, 2004), a positive effect on young children's acquisition of grammar has been reported. Given that WCF is invariably explicit in nature, it is possible that children will attend to it, at least sometimes, and be able to utilize what they have learned from it in their subsequent writing.

There is now substantial evidence that WCF can have a positive effect on the second language acquisition of grammatical features as measured in new writing. However, the studies reporting this positive effect have almost all investigated adult learners mainly at university-level. There are virtually no WCF studies of L2 elementary school learners. The most comprehensive account of written corrective feedback to date (Bitchener & Ferris, 2012) makes no reference to research involving young children. A more recent review of the research (Bitchener & Storch, 2016) also contains not a single reference to a study of WCF with young children. A search of articles on WCF in the *Journal of Second Language Writing* likewise reveals an almost complete absence of studies investigating young children. Meta-analytic treatments of research on feedback on writing (e.g. Biber, Nekrasova & Horn, 2011; Liu & Brown, 2015) similarly point to very few studies of elementary level L2 students although there are a number of L1 studies at this level. Somewhat surprisingly even popular books on teaching languages to young children (e.g. Cameron, 2001; Pinter, 2006) offer no advice about written corrective feedback.

Teachers are often ambivalent about the need to correct young learners' writing. Mollestam and Hu's (2016) interviews with teachers of 9–11 year old Swedish children studying English revealed that although they all thought it important to correct their students' written errors, they did not believe it was always necessary to do so – for example, if the aim was to have the students write a long text. Mollestam and Hu's teachers also felt that it was undesirable to correct if a child was struggling to write and they were generally concerned that WCF could discourage the children.

The study of the most direct relevance to the present research is Fazio (2001). She investigated the effects of three types of written feedback on the journal writing of 115 Grade 5 students in French language schools in Montreal. The students were a mixture of native-speaking French children and minority-language learners. The feedback was of three kinds – (1) form-focused, (2) content-based and (3) a combination of form and content-based. The form-focused corrections were directed at the grammatical spelling errors related to French subject/verb and noun/adjective agreement. The correction was of the direct kind (i.e. errors were underlined and the correct form provided immediately above where an error occurred). The feedback was provided weekly over a three and a half month period. Thus the feedback was extensive and continuous. The students were also interviewed to discover their attitudes to the feedback and the extent to which they attended to it. The results showed no gains in accuracy over time nor any difference in the effects of the three types of feedback. The minority-language learners who received the form-focused corrections actually produced more errors as time passed. The interviews indicated that the students did not consistently attend to the feedback.

In her discussion of the results, Fazio pointed to a number of reasons for the ineffectiveness of the feedback. She noted that grammatical spelling is a challenging aspect of French and takes time to master, that the error rates were relatively low at the beginning of the study making significant improvement unlikely, that the general instruction the learners received was very form-oriented which may have neutralized any effect for feedback, and that most of the students failed to attend to the corrections even though they had been encouraged to do so. We would also add that the nature of the writing task – journal writing where the children were encouraged to write freely on any topic they chose – was likely to have accentuated the tendency to focus on meaning at the expense of form. It is possible, however, that a writing task that encourages greater attention to linguistic form might encourage children to engage with the WCF.

It was with this in mind that we elected to use dictogloss in our study. Dictogloss was introduced by Waynryb (1990) as a way of teaching specific grammatical structures in a contextualized way. It has been mostly used with older learners but Cameron (2001) suggested that it can be adapted for younger learners. Shak and Gardner (2008) reported that young learners in Brunei, a similar learning context to the context of our study, rated dictogloss tasks positively as cognitively stimulating but not overly demanding. In a dictogloss task the teacher first reads out a short text two or three times while the students take notes. The students then use their notes to reconstruct the text either orally in pairs or in writing individually. Although some studies with adult learners (e.g. Swain & Lapkin, 2001) have shown that learners may fail to reproduce the target structure, other studies (e.g.

Shintani, Ellis & Suzuki, 2013) have found that dictogloss is successful in eliciting attempted use of the intended structure, especially if this is central to a text's meaning as was the case in the present study.

We elected to provide direct correction. Indirect WCF, which forces learners to draw on their existing L2 knowledge to correct their performance 'mistakes', is often considered preferable because it involves deeper processing. However, indirect WCF is only effective if learners possess the knowledge to make a correction. It cannot help learners to correct their 'errors' (i.e. the gaps in their competence). In this respect direct WCF that provides learners with the correct forms is needed. Given that the children in our study were expected to have limited knowledge of the target structure (Present Perfect Tense), we decided on direct WCF. Direct WCF has been found effective in a number of studies of adolescent and adult learners (e.g. Shintani & Ellis, 2013; Van Beuningen, de Jong & Kuiken, 2012).

1.3   FFI and explicit knowledge

One of Truscott's (1996) critiques of early WCF studies was that they failed to investigate the effect of feedback on new pieces of writing. Subsequent WCF studies have remedied this by ensuring that learners are asked to complete a new piece of writing following correction on earlier writing. However, another of Truscott's concerns, namely that WCF only contributes to explicit knowledge, is less easily addressed. While there is wide agreement that WCF can result in greater accuracy, doubts continue as to whether it helps to develop learners' implicit knowledge (Williams, 2012). Evidence indicating that WCF only affects learners' explicit knowledge can be found in Shintani and Ellis (2013). They reported that the positive effects of WCF wore off over time and suggested this was because it had only impacted on their learners' explicit knowledge, which, unlike implicit knowledge, atrophies easily. What is true for WCF is perhaps even more likely to be the case for metalinguistic information. Thus, the types of FFI we investigated can only be expected to contribute to learner's explicit knowledge.

This raises further doubts about the value of providing metalinguistic information and WCF for children. As we pointed out above, children are less well equipped cognitively to develop metalinguistic understanding of grammar. It may be, therefore, that while these two types of FFI have a positive contribution to make to adult learners' accuracy in writing by expanding their explicit knowledge of grammar they will be ineffective for children.

2.   Method

The following research questions were devised to investigate the comparative effects of two types of FFI – metalinguistic explanation and direct written corrective feedback – on children's use of the Present Perfect Simple Tense:

1. Does FFI lead to more accurate use of Present Perfect Simple in new pieces of writing than writing practice alone?
2. Is there any difference in the effect that metalinguistic explanation and direct written corrective feedback have on the accurate use of Present Perfect Simple in new pieces of writing?

While we remain open to the possibility that both metalinguistic explanation and direct WCF may lead to greater accuracy in the children's use of Present Perfect Simple Tense, we consider that this is unlikely for the reasons given in the preceding sections. Of the two types of FFI, we considered that direct WCF was the more likely to result in gains in accuracy as it provides learners with the correct input.

2.1   Participants

The study was carried out at British Council, Kuala Lumpur, with three intact general English classes that studied once a week for two hours. One of the researchers was also the class teacher. Forty-two students agreed to participate in the study but only 33 children completed all the treatments and tests. The children were 9–12 years old, with an average age of 10.5. There were 15 boys and 18 girls. Of the 33 subjects, 22 spoke Mandarin or Cantonese at home, 8 spoke (Malaysian) English and 3 spoke Malay. The majority of the children were multilingual, typically speaking Mandarin and/or Cantonese, Malay, English, and an additional Chinese dialect. A key feature of these children was that they were highly functional in using more than one language. They were considered low intermediate in English, typically displaying intermediate-level receptive skills but having less control over accuracy in productive tasks. They were fluent writers who could generally produce Roman script rapidly without conscious effort. The children were accustomed to formal grammar instruction, which was favoured in the school environment.

2.2   Design

The three classes were randomly assigned to a treatment: the Metalinguistic Explanation (ME) group ($n=11$), the direct WCF group ($n=11$), and the Comparison Group ($n=11$). The children participated in four sessions as outlined in

Table 1. In Week 1, all participants completed Writing Task 1 (pre-test). In Week 2, the ME group received eight minutes of teacher-led whole class instruction while the WCF group had eight minutes to study their direct WCF. Neither treatment group revised their writing. The Comparison Group had eight minutes to proof-read their own writing and make their own corrections. The participants then completed Writing Task 2. The pattern of treatment from Week 2 was repeated for each group in Week 3 when the students completed Writing Task 3. In Week 5, all groups completed Writing Task 4 (as a delayed post-test) and a background questionnaire.

Table 1. Design of the study

	ME	WCF	Comparison
Week 1	Writing Task 1 (pre-test) 8 minutes	Writing Task 1 (pre-test) 8 minutes	Writing Task 1 (pre-test) 8 minutes
Week 2	Meta-linguistic explanation (based on Writing Task 1) 8 minutes	Studying WCF on Writing Task 1 8 minutes	Self-correction of Writing Task 1 8 minutes
	Writing Task 2 8 minutes	Writing Task 2 8 minutes	Writing Task 2 8 minutes
Week 3	Meta-linguistic explanation (based on Writing Task 2) 8 minutes	Studying WCF on Writing Task 2 8 minutes	Self-correction of Writing Task 2 8 minutes
	Writing Task 3 8 minutes	Writing Task 3 8 minutes	Writing Task 3 8 minutes
Week 5	Writing Task 4 8 minutes Student questionnaire	Writing Task 4 8 minutes Student questionnaire	Writing Task 4 8 minutes Student questionnaire

2.3   Target structure

A continuing limitation of WCF studies is the narrow range of grammatical structures that has been investigated. Study after study has focused on English definite and/or indefinite articles. A few studies have investigated prepositions and a few others past simple tense. Shintani, Ellis and Suzuki's (2013) study addressed hypothetical conditionals. We chose Present Perfect Simple on the grounds that this tense causes difficulty for L2 learners of English with regard

to its form, meaning and use but also because no study involving the two FFI options we elected to investigate has investigated this structure to date.[1]

The Present Perfect Simple was chosen as the grammatical target in part because it had not been previously taught to the students[2] and in part because it is semantically complex and often causes learners difficulty. Two functional uses of Present Perfect Simple (McCawley (1971), as cited in Michaelis, 1994, p. 113) were the target of this study:

Universal/continuative
e.g. He has studied at British Council since 2012.
A state continues throughout a time period whose upper boundary is the time of speaking.
Existential/experiential
e.g. He has had five teachers so far.
One or more events of a given type occur within a time span that includes the present.

The perfect aspect is problematic for most learners in the Malaysian context. Yong (2001) and Chang (2001) cite the use of Present Perfect for past events as problematic for both Malay and Chinese speakers because these languages rely heavily on adverbials instead of morphology to perform the same function. Malaysian speakers of English typically over use the temporal adverb *already* without supplying the requisite tense marking. A study of Malaysian high school students' errors in written compositions (Talif & Edwin, 1989) identified the Present Perfect as the most problematic structure.

2.4   Materials

2.4.1   *Background questionnaire*

A background questionnaire elicited information about the learners' gender, parent tongue, school, and languages spoken.

2.4.2   *Dictogloss tasks (Appendix A)*

The materials consisted of four texts describing four children and their life experiences. Each text was approximately 80 words long. The functional distinctions described by McCawley (1971) (as cited in Michaelis, 1994, p. 113) of universal/ continuative and existential/ experiential events were used to develop the texts.

---

1. Rummel (2014) investigated the effect of WCF on Present Perfect but this study reported only the combined results for this tense and Past Simple.

2. The teacher of the class confirmed that the Present Perfect had not been taught in the previous six months. It is possible, however, that it had been taught at some time prior to this.

The writing tasks also contained temporal adverbials that commonly occur with the Present Perfect, for example *so far, already, since*, in order to provide contexts in which Present Perfect was obligatory and in which Past Simple could not be substituted. There were five instances of Present Perfect Simple in each text, with two regular and three irregular verbs to allow for the possibility that WCF might have a differential effect on regular and irregular forms. Each text also contained one obligatory use of past simple in order to check for over-generalisation of Present Perfect Simple after the children received ME or WCF. Reconstruction tasks rather than free writing tasks were chosen as Malaysian learners were likely to avoid the Present Perfect Simple in producing their own texts.

2.4.3   *Procedure*

The procedure outlined here was repeated for each of the four writing tasks. The teacher/researcher read the text twice while the children watched visual and word prompts on the interactive whiteboard. Auxiliary *have* was not contracted. The children were asked to recall and reconstruct the text individually using a printed copy of the presentation as a memory aid. This was a modification of the standard dictogloss procedure described by Wajnryb (1990) that was intended to bring the texts alive for the children and to reduce the cognitive load involved in processing them. Each presentation took four minutes and the children had eight minutes to write the text individually. ME and WCF were provided in Week 2 and Week 3 immediately before the students completed a new writing task.

The ME consisted of an eight-minute mini-lesson in Week 2 (focusing on the text written in Week 1) and in Week 3 (focusing on the text written in Week 2). It took place immediately before the students began a new writing task. The teacher used a gapped version of the interactive whiteboard presentation and elicited the correct verb forms (Present Perfect Simple and Past Simple) from the whole class. The teacher asked questions to clarify the difference in meaning and use of the two structures and to highlight the difference in auxiliary form for singular and plural subjects. The learners were reminded to refer to their course book to look up the past participles of irregular verbs.

Students in the WCF group received direct feedback on Writing Task 1 and Writing Task 2 in Weeks 2 and 3 respectively, immediately prior to completing a new piece of writing. Errors in verb forms where Present Perfect Simple was obligatory were crossed out and the correct form was written above them. See Appendix B for a sample corrected script. Students had eight minutes of supervised, silent time to look over their feedback before completing the next writing task. The students did not have access to the corrected text when they wrote the new text.

The Comparison Group received no feedback but to eliminate the possibility of extra time contributing to an advantage for the other groups, the learners in this group were given eight minutes in Weeks 2 and 3 to read over and edit their own writing from the previous week before completing a new piece of writing.

2.4.4   Coding and scoring

For each occurrence of Present Perfect Simple, five in each text, a maximum of two points was given as shown in Table 2.

Table 2. Scoring of present perfect simple

Auxiliary 'have'	Correct form of 'have'	1
	Incorrect form of 'have' (have, has, had)	0.5
	Some other auxiliary or verb form	0
Past participle Only awarded if preceded by an auxiliary verb	Correct form of past participle	1
	An incorrect form of past participle	0.5
	– Over use of 'ed' e.g. *hitted* – Incorrect spelling – A past participle is supplied but the choice of verb is inaccurate e.g. *played gymnastics*	
	No past participle / past participle not preceded by an auxiliary verb	0

Points were only awarded for the past participle if it was preceded by an auxiliary verb although not necessarily *have*. A different main verb was scored if the meaning was the same (*he has seen all his films/he has watched all his films*). If the Present Perfect Continuous was supplied in appropriate contexts, two points were also possible as shown in Table 3. Where present perfect continuous was used inappropriately, only one point was possible for auxiliary 'have'. Examples of how the scoring was applied can be found in Appendix C.

Table 3. Scoring of present perfect continuous

Auxiliary 'have'	Correct form of 'have'	1
	Incorrect form of 'have'	0.5
	Some other auxiliary	0
Been + verb + ing	Correct form of been + verb + ing	1
	Incorrect form of been + verb + ing	0
	Use in incorrect contexts	0

An accuracy score was calculated for each student for each task, by dividing the total number of points scored by the total number of possible points, expressed as a proportion of 1. The scripts were also checked for overuse in obligatory Past Simple Contexts of which there was one possible in each text. If over use occurred, it was calculated using Pica's (1994) Target-like Use formula by adding two to the denominator – two being the number of points awarded for each obligatory occasion of Present Perfect Simple. Scores were calculated for total verbs and also for regular and irregular verbs separately.

2.4.5   Analysis

To check the reliability of scoring, the pre-tests (25% of the total tests) were re-scored by the main researcher one month after the original scoring. The two sets of scores were compared using Pearson Product Moment Correlation (r) with a correlation of .991.

Three students, from the ME and WCF groups, produced Present Perfect Simple with 80% accuracy or higher on the pre-test. These students were the excluded from the data analysis because there was very little room for improvement. The final sample comprised: ME ($n=10$), WCF ($n=9$), and Comparison ($n=11$).

Because no statistically significant differences were found between the pre-test scores for each group ($F(2,27)=1.089$, $p=0.351$, $\eta_p^2=.075$), a repeated measures ANOVA was chosen to assess the comparative effects of different types of treatment on accuracy scores for Present Perfect Simple at the four times. Model diagnostics based on residuals indicated that the normality and homogeneity assumptions were met.

However, the distributions of the separate scores for regular and irregular past-participles were found to violate the assumption of normality. The assumption of equal variance, as assessed by a visual inspection of boxplots, was also not met. As such, non-parametric tests were conducted: Kruskal-Wallis H Tests with post hoc Whitney-Mann U for group comparisons, and individual Friedman tests for time effects.

Between group effect sizes were calculated as partial eta-squared (η_p^2), with .01, .06 and .14 indicating 'small', 'moderate', and 'large' effects respectively (Cohen, 1988). Within group effect sizes were also calculated using Cohen's d, with $d=0.2$ considered 'small', $d=0.5$ considered 'medium', and $d=0.8$ considered a 'large' effect size.

3.   Results

Tables showing the mean and standard deviations of all the scores can be found in the supplementary materials to this article. To obtain a general idea of what effect the FFI had on accurate use of the Present Perfect Tense a comparison was made of those children whose accuracy score increased from Task 1 to Task 4 and those children whose score remained the same or declined. The results of this analysis for the three groups is shown in Table 4. This shows clearly that neither the ME nor the WCF had any consistent impact on accuracy. While some children's accuracy did increase, the same or a greater number of children in the FFI groups showed no increase. In the Comparison Group a bare majority of the children improved in accuracy.

Table 4. Number of children whose accuracy showed an increase or no increase

Group	# Learners showing increase in accuracy	# Learners showing no increase in accuracy
ME	5	5
WCF	3	6
Comparison	6	5

The results for the three groups will now be presented using graphs. To answer the first research question, whether teacher feedback led to more accurate use of Present Perfect Simple in new pieces of writing than writing practice alone, the scores for the combined treatment groups (ME+WCF) were compared with those of the Comparison Group across the four times. The results are displayed in Figure 1. A repeated measures ANOVA showed no significant effect for treatment, $(F(1, 28) = 0.290, p = 0.594, \eta_p^2 = .010)$, time $(F(3, 84) = 1.346, p = 0.265, \eta_p^2 = .046)$ or any time x treatment interaction $(F(3, 84) = 1.300, p = 0.280, \eta_p^2 = .044)$.

The second research question addressed the comparative effect of ME and direct CF. The descriptive statistics are shown in Figure 2. A repeated measures ANOVA revealed no statistically significant differences for group $(F(2, 27) = 1.358, p = 0.274, \eta_p^2 = .091)$ or changes in accuracy over time $(F(3, 81) = 1.575, p = 0.202, \eta_p^2 = .055)$. The time-group interaction was also non-significant $(F(6, 81) = 0.629, p = 0.707, \eta_p^2 = .044)$. A pairwise comparison of means for each group by time/treatment (see Table 5) showed a small positive effect for each group from Time 1-Time 2, ME $(d = 0.33)$, WCF $(d = 0.42)$, and comparison $(d = 0.39)$. There was also a small positive gain from Time 3 to Time 4 for the Comparison Group $(d = 0.40)$ but small negative effects for the ME $(d = -0.38)$ and WCF $(d = -0.39)$.

Given that previous research (e.g. Frear and Chiu, 2015) suggests that the effects of corrective feedback may vary depending on whether or not the target is
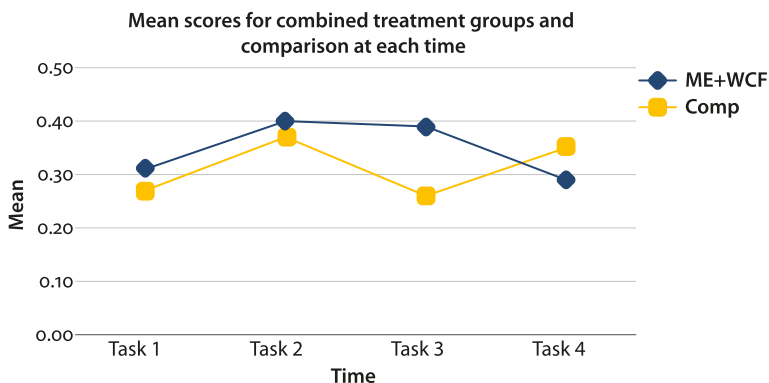
Mean scores for combined treatment groups and comparison at each time

Figure 1. Scores for ME+WCF and the Comparison Group over the four writing tasks

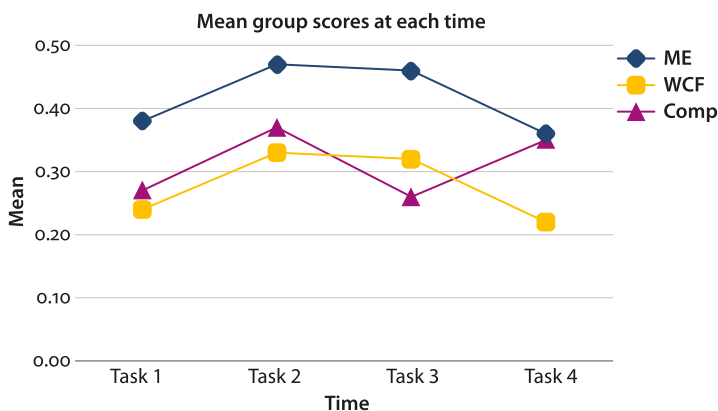**Mean group scores at each time**

Figure 2. The three groups' mean scores on the four writing tasks

Table 5. Effect sizes for changes in accuracy over time

| Group | Time 1 – Time 2 | | Time 2 – Time 3 | | Time 3 – Time 4 | |
	Cohen's *d*	Effect size	Cohen's *d*	Effect size	Cohen's *d*	Effect size
ME	+0.33	small	−0.03	negligible	−0.38	small
WCF	+0.42	small	−0.04	negligible	−0.39	small
Comp	+0.39	small	−0.44	small	+0.40	small

rule-based, a further analysis was carried out to see if the FFI benefited just accurate use of regular past-participles. Because these are rule-based, they are arguably

more likely to be influenced by FFI.[3] Accuracy scores over the four times are shown in Figure 3. There were statistically significant group differences in the pre-test scores (Kruskal-Wallis H test, $\chi^2(2) = 7.884$, $p = 0.019$). As a result gain scores were calculated and used in subsequent analyses. A series of Kruskal-Wallis H tests found no statistically significant group differences at any time: $\chi^2(2) = 0.926$, $p = 0.629$ (Gain Score 1), $\chi^2(2) = 1.132$, $p = 0.568$ (Gain Score 2), $\chi^2(2) = 0.978$, $p = 0.613$ (Gain Score 3). Individual Freidman tests were conducted to see if there were any significant within group effects over time. These showed no significant changes for regular verbs (ME ($\chi^2(2) = 0.000$, $p = 1.00$), WCF ($\chi^2(2) = 5.000$, $p = 0.082$), Comparison ($\chi^2(2) = 1.083$, $p = 0.582$)).
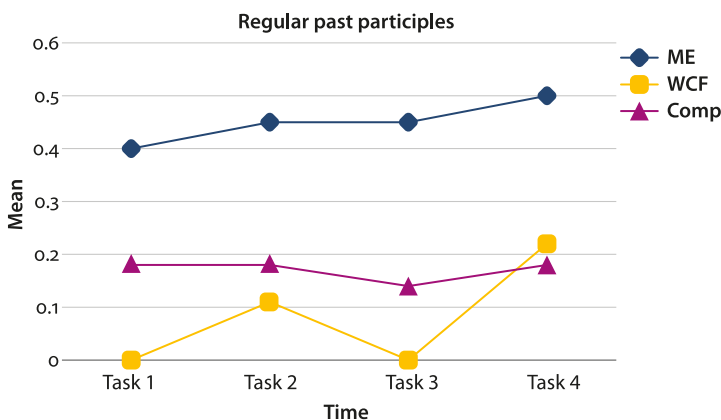

Figure 3. Mean scores for regular past participles by group at each time

To sum up, FFI did not result in increased accuracy of the target structure (Present Perfect Simple) over time. Also there was no difference in the effects of the Metalinguistic Explanation and Direct WCF. In both cases, there was an initial small positive effect but this was also evident in the Comparison Group and it was not sustained. Nor, when accuracy scores for regular participle forms were considered separately, was any beneficial effect for either type of FFI found. Within group comparisons also revealed no significant changes in accuracy in either regular or irregular participles over time.

---

3. A limitation of this analysis, however, is that the total possible score for regular past participle was only 4.

4.   Discussion

FFI consisting of metalinguistic explanation (ME) or direct written corrective feedback (WCF) had no impact on the young learners' accurate use of Present Perfect Simple Tense. The initial gain evident in the second writing task dissipated in the third writing task even though the children had received further FFI on the writing they produced for the second task. By the final writing task negative effect sizes were evident for both the ME and the WCF groups while the Comparison Group had regained all the losses in accuracy in Task 3. In short, there was no evidence that either type of FFI conferred any advantage nor evidence of any difference in the effect of the two types. Both were equally ineffective.

To investigate further, we also explored whether there was any effect for the FFI when regular verb forms were considered separately. Previous research (e.g. Doughty & Varela, 1998; Yang & Lyster, 2010) has suggested that different types of oral corrective feedback impact differently on regular and irregular verb forms so it was possible that the same would occur for FFI on writing. However, once again, no effect for either type of feedback on the accuracy of regular past participle forms was found and there was no difference in the effect of the two types of FFI.

These results for ME differ from those of other studies (e.g. White et al., 1991; White & Ranta, 2002), which have shown a positive effect of providing children with metalinguistic information about grammatical features. However, there is a fundamental difference between the current study and these other studies, all of which involved quite extensive metalinguistic explanation coupled with input-based and output-based practice opportunities. In the current study the ME was restricted to two sessions of eight minutes and there were no supporting practice activities other than the follow-up writing tasks. A possible conclusion, then, is that ME, when unaccompanied with adequate practice, will have no effect on young learners' grammatical accuracy in writing tasks. Interestingly, however, ME has been found to have a positive effect for adult learners even without practice (Shintani, Ellis, & Suzuki, 2013).

Perhaps, too, the ME was ineffective because it did not sufficiently engage the children. Myhill et al. (2013) emphasized that "the teaching of grammar and writing requires metalinguistically aware teaching … involving active discussion about authorial choices in writing" (p. 110). The approach we adopted was dialogic in nature but it took as its starting point the form of the Present Perfect Simple Tense, linking this to the meanings it conveyed in texts that had been contrived to illustrate its use. This differed from the approach reported in Myhill et al., where the primary focus was on writing, not grammar, and the starting point was making meaning, not grammatical form. Myhill et al. (2016) emphasized the importance of "teachers skillfully challenging and questioning students about

their writing choices" and then "handing back the final decision to the authors" (p. 39). But the ME in our study was teacher-centred and focused on the structure itself rather than on the students' writing.

Like Fazio's (2001) study, the results of the current study suggest that WCF is of no value in helping young learners' to improve grammatical accuracy. The explanations that Fazio offered for her results also apply here. Present Perfect Simple is a complex grammatical structure that is typically acquired quite late (see Bardovi-Harlig, 2000) so the learners may not have been developmentally ready. The learners may have failed to pay attention to the corrections. Observations of how they responded to their corrected writing when it was returned to them indicate while some of the older students, especially the girls, engaged with the direct corrections, the other children were not interested. Possibly, too, the children were so focused on reconstructing the message content of the texts that they did not draw on any explicit knowledge they had developed by processing the corrections.

We are still left with why the WCF in this study proved ineffective when oral corrective feedback directed at learners of a similar age has been found to contribute to increased accuracy of grammatical structures such as past tense. Doughty and Varela (1998), for example, reported that 11 to 14 year old children who received corrective recasts when they made errors in the use of English past verb forms in an oral report of a science experiment showed gains in accuracy in both oral and written tests in both the short and long term. Why then, was the WCF in Fazio's and our studies so ineffective? The crucial difference between oral CF and WCF lies in the timing of the feedback. Oral CF occurs immediately and contiguously to the utterance containing an error. Written CF is delayed. Doughty (2001) argued that there is a short 'window of opportunity' during which learners can carry out the cognitive comparison of their own erroneous form and the target language form and that if the opportunity this affords is taken up and the target form attended to interlanguage modification can occur. In the case of WCF (and also the ME in our study), however, the act of communication is over and the window of opportunity long past. If motivation lies within the act of communication itself, as suggested by McNamara (1972), then there is no inherent need for learners to attend to a written correction. Adult learners may choose to attend to the corrections as they are more predisposed to treat language as an object for analysis and to engage in intentional language learning and thus may benefit from WCF. The young learners in our study (and perhaps Fazio's too), however, were clearly functionally oriented, geared to incidental learning, less equipped cognitively to attend to linguistic objects, and less inclined affectively to do so.

If this explanation is right, it follows that it is the fact that the FFI did not occur online as learners struggled to produce verbs in the Present Perfect Tense that made it ineffective. If ME or direct WCF had been available immediately to

learners, as is possible with synchronous computer-mediated feedback (Shintani and Aubrey, 2016), it is possible that children would have benefitted from it. Perhaps, then, it is necessary to distinguish two senses of 'integrated FFI' (Spada and Lightbown, 2008) – one where the FFI occurs <u>between</u> practice activities and one where it occurs <u>within</u>. For children it may be the within-task FFI that is needed.

5.   Conclusion

We have examined the effects of two types of FFI on children's use of a difficult grammatical structure (Present Perfect Simple) and found it ineffective. The most likely explanation is that the children were not able or not disposed to use the information they received to attend to form when focused on meaning in the writing tasks. Neither abstract information about the grammatical rule nor direct corrections of their errors helped them to avoid errors in subsequent writing. However, it would be premature to call for abandoning FFI with young learners. Within-task FFI or FFI supported by extensive practice opportunities and with opportunities for young learners to engage dialogically with meaning-to-form mapping may prove effective. Clearly, though, further research is needed to investigate the conditions that can make different types of FFI effective for children.

There are a number of other limitations in our study. Working with intact classes meant it was not possible to balance the groups based on pre-test scores. The ME group started with notably (but not significantly) greater accuracy in the use of the Present Perfect Simple although this did not enable them to benefit any more from the FFI. The mortality that resulted from difficulties in obtaining parental permission and learners being absent from one of the four testing days resulted in the relatively small sample size. It could also be said that the dictogloss writing tasks lacked ecological validity. Van Beuningen (2010) argued that it is necessary to use writing tasks of the kind typically found in the instructional context under investigation. Perhaps, too, the children may not have been invested personally in the dictogloss tasks (see Reyes, 1991). There were only two FFI treatment sessions. It is possible that more sessions would have produced an effect although studies involving adults have shown that even a one-shot treatment can be effective.

References

Ammar, A., & Spada, N. (2006). One size fits all?: Recasts, prompts, and L2 learning. *Studies in Second Language Acquisition*, 28(04), 543–574. https://doi.org/10.1017/S0272263106060268

Andrews, A. et al. (2004). *The effect of grammar teaching (sentence combining) in English on 5 to 16 year olds' accuracy and quality in written composition*. Department of Educational Studies Research Paper, University of York.

Bardovi-Harlig, K. (2000). *Tense and aspect in second language acquisition: Form, meaning and use*. Oxford: Blackwell.

Biber, D., Nekrasova, T., & Horn, B. (2011). The effectiveness of feedback for L1-English and L2-writing development: A meta-analysis. *ETS Research Report Series*, 1, 1–99. https://doi.org/10.1002/j.2333-8504.2011.tb02241.x

Bitchener, J., & Ferris, D. (2012). *Written corrective feedback in second language acquisition and writing*. New York, NY: Routledge. https://doi.org/10.4324/9780203832400

Bitchener, J., & Storch, N. (2016). *Written corrective feedback for L2 development*. Bristol: Multilingual Matters. https://doi.org/10.21832/9781783095056

Bouffard, L., & Sakar, M. (2008). Training 8-year-Ood French immersion students in metalinguistic analysis: An innovation in form-focused pedagogy. *Language Awareness*, 17, 3–24. https://doi.org/10.2167/la424.0

Bryant, P., Devine, M., Ledward, A. & Nunes, T. (1997). Spelling with apostrophes and understanding possession. *British Journal of Educational Psychology*, 67, 91–110. https://doi.org/10.1111/j.2044-8279.1997.tb01229.x

Cameron, L. (2001). *Teaching languages to young learners*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511733109

Chang, J. (2001). Chinese speakers. In M. Swan & B. Smith (Eds.), *Learner English: A teacher's guide to interference and other problems*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511667121.022

Doughty, C. (2001). Cognitive underpinnings of focus on form. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 206–257). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139524780.010

Doughty, C., & Varela, E. (1998). Communicative focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 114–138). Cambridge: Cambridge University Press.

Fazio, L. (2001). The effect of corrections and commentaries on the journal writing accuracy of minority- and majority-language students. *Journal of Second Language Writing*, 10(4), 235–249. https://doi.org/10.1016/S1060-3743(01)00042-X

Frear, D. & Chiu, Y.-H. (2015). The effect of focused and unfocused indirect written corrective feedback on EFL learners' accuracy in new pieces of writing. *System*, 53, 24–34. https://doi.org/10.1016/j.system.2015.06.006

Hanan, R. (2015). The effectiveness of explicit grammar instruction for the young foreign language learner: A classroom-based experimental study (Unpublished PhD dissertation). University of York, UK.

Harley, B. (1998). The role of focus-on-form tasks in promoting child L2 acquisition. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 156–173). Cambridge: Cambridge University Press.

Inhelder, B., Piaget, J. (1958). *The growth of logical thinking from childhood to adolescence* (Parsons, A., Milgram, S. Trans.), New York, NY: Basic Books. https://doi.org/10.1037/10034-000

Laval, C. (2013). The age factor on the primary, secondary and cumulative transfer-of-training effects of processing instruction on the acquisition of French as a second language. In J. Lee & A. Benati (Eds.), *Individual differences and processing instruction* (pp. 105–130). London: Equinox.

Liu, Q., & Brown, D. (2015). Methodological synthesis of research on the effectiveness of corrective feedback in L2 writing. *Journal of Second Language Writing*, 30, 66–81. https://doi.org/10.1016/j.jslw.2015.08.011

Lyster, R. (2004). Differential effects of prompts and recasts in form-focused instruction. *Studies in Second Language Acquisition*, 26(3), 399–432. https://doi.org/10.1017/S0272263104263021

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake. *Studies in Second Language Acquisition*, 19(1), 37–66. https://doi.org/10.1017/S0272263197001034

McCawley, J. (1971). Tense and time reference in English. In Fillmore, C. & Langendoen, D. T. (Eds), *Studies in linguistic semantics* (pp. 97–113). New York: Holt Rinehart.

McNamara, J. (1972). Cognitive basis of language learning in infants. *Psychological Review*, 79(1), 1–13. https://doi.org/10.1037/h0031901

Michaelis, L. (1994). The ambiguity of the English present perfect. *Journal of Linguistics*, 30(1), 111–157. https://doi.org/10.1017/S0022226700016200

Mollestam, E., & Hu, L. (2016, March 18). Corrective feedback on L2 students' writing. Degree project; Malmo Hogskola. Retrieved from <https://dspace.mah.se/bitstream/handle/2043/20687/Corrective%20feedback%20on%20L2%20students%20%20writing.pdf?sequence=3>

Muñoz, C. (2006). The effects of age on foreign language learning. In C. Muñoz (Ed.), *Age and the rate of foreign language learning* (pp. 1–40). Clevedon: Multilingual Matters. https://doi.org/10.21832/9781853598937-003

Myhill, D., Jones, S., Watson, A. & Lines, H. (2013). Playful explicitness with grammar: A pedagogy for writing. *Literacy*, 47, 103–111. https://doi.org/10.1111/j.1741-4369.2012.00674.x

Myhill, D., Jones, S. & Wilson, A. (2016). Writing conversations: fostering metalinguistic discussion about writing. *Research Papers in Education*, 31, 23–44. https://doi.org/10.1080/02671522.2016.1106694

Norris, J. M., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50, 417–528. https://doi.org/10.1111/0023-8333.00136

Pica, T. (1984). Methods of morpheme quantification: Their effect of the interpretation of second language data. *Studies in Second Language Acquisition*, 6, 69–78. https://doi.org/10.1017/S0272263100000309

Pinter, A. (2006). *Teaching young language learners*. Oxford: Oxford University Press.

Reyes, M. (1991). A process approach to literacy using dialogue journals and literature logs with second language learners. *Research in the Teaching of English*, 25(3), 291–313.

Rummel, S. (2014). Student and teacher beliefs about written CF and the effect those beliefs have on uptake: A multiple case study of Laos and Kuwait. (Unpublished PhD dissertation). Auckland University of Technology, Auckland.

Shak, J., & Gardner, S. (2008). Young learner perspectives on four focus-on-form tasks. *Language Teaching Research*, 12, 387–408. https://doi.org/10.1177/1362168808089923

Shintani, N., & Aubrey, S. (2016). The effectiveness of synchronous and asynchronous written corrective feedback on grammatical accuracy in a computer-mediated environment. *The Modern Language Journal*, 100(1), 296–319. https://doi.org/10.1111/modl.12317

Shintani, N., & Ellis, R. (2013). The comparative effect of direct written corrective feedback and metalinguistic explanation on learners' explicit and implicit knowledge of the English indefinite article. *Journal of Second Language Writing*, 22(3), 286–306. https://doi.org/10.1016/j.jslw.2013.03.011

Shintani, N., Ellis, R., & Suzuki, W. (2013). Effects of written feedback and revision on learners' accuracy in using two English grammatical structures. *Language Learning*, 64(1), 103–131. https://doi.org/10.1111/lang.12029

Spada, N., & Lightbown, P. (2008). Form-focused instruction: isolated or integrated? *TESOL Quarterly*, 42(2), 181–207. https://doi.org/10.1002/j.1545-7249.2008.tb00115.x

Swain, M., & Lapkin, S. (2001). Focus on form through collaborative dialogue: Exploring task effects. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks: Second language learning, teaching, and testing* (pp. 99–118). London: Routledge.

Talif, R., & Edwin, M. (1989). Error analysis of form four English compositions. Retrieved September 20, 2017, from <http://www.melta.org.my/index.php/11-melta-articles/140-error-analysis-of-form-four-english-compositions>

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning*, 46(2), 327–369. https://doi.org/10.1111/j.1467-1770.1996.tb01238.x

Van Beuningen, C. (2010). Corrective feedback in L2 writing: theoretical perspectives, empirical insights, and future directions. *International Journal of English Studies*, 8(2), 1–27. https://doi.org/10.6018/ijes/2010/2/119171

Van Beuningen, C., de Jong, N., & Kuiken, F. (2012). Evidence on the effectiveness of comprehensive error correction in second language writing. *Language Learning*, 62(1), 1–41. https://doi.org/10.1111/j.1467-9922.2011.00674.x

VanPatten, B. (1996). *Input processing and grammar instruction in second language acquisition*. Norwood, NJ: Ablex.

VanPatten, B. & Oikkenon, S. (1996). Explanation vs. structured input in processing instruction. *Studies in Second Language Acquisition*, 18, 495–510. https://doi.org/10.1017/S0272263100015394

Wajnryb, R. (1990). *Resource books for teachers: grammar dictation*. Oxford: Oxford University Press.

White, J., & Ranta, L. (2002). Examining the interface between metalinguistic knowledge and oral production in a second language. *Language Awareness*, 11, 259–290. https://doi.org/10.1080/09658410208667060

White, L., Spada, N., Lightbown, P. M. & Ranta, L. (1991). Input enhancement and L2 question formation. *Applied Linguistics*, 12, 416–432. https://doi.org/10.1093/applin/12.4.416

Williams, J. (2012). The potential role(s) of writing in second language development. *Journal of Second Language Writing*, 21(4), 321–331. https://doi.org/10.1016/j.jslw.2012.09.007

Yang, Y., & Lyster, R. (2010). Effects of form-focused practice and feedback on Chinese EFL learners' acquisition of regular and irregular past tense forms. *Studies in Second Language Acquisition*, 32(2), 235–263. https://doi.org/10.1017/S0272263109990519

Yong, J. (2001). Malay/Indonesian speakers. In M. Swan & B. Smith (Eds), *Learner English. A teacher's guide to interference and other problems* (pp. 279–295). Cambridge: University of Cambridge Press. https://doi.org/10.1017/CBO9780511667121.020

Appendix A.   Dictogloss texts

Task 1

Bryan and his family have lived in Ampang for three years. Bryan likes doing exciting things. He has been to Legoland three times since it opened in 2012, and last year his parents took him to Hong Kong Disneyland. Bryan is learning English. He has studied at the British Council since 2012. He has had five teachers so far, but Teacher Mary is his favourite. Bryan likes *Diary of a Wimpy Kid*. He has read two of the books this week! (81 words)

Task 2

Jessica lives in Damansara with her family. They have known Mary since 2013. Jessica is ten years' old and she is very clever. She has already started high school. She has studied hard this year because the other children are much older than her. Jessica is also very good at sport. She has done Taekwondo for five years. She got her black belt last year, so don't fight with her! She has already won two international competitions so far this year. (81 words)

Task 3

Kylie lives in Penang with her family. Her parents have owned a restaurant there since 2011. Kylie is a good student and goes to Han Chiang School. She has also studied at the British Council for two years. Kylie has had a lot of adventures since she moved to Penang. Her parents have taken her all over the world. Her favourite place is England. She has been there three times. Last year she met Mr Bean on the London Eye! (80 words)

Task 4

Zac lives with his parents near Universal Studios in Singapore. They have lived there for three years. Zac wants to be an actor. His parents have taken him to acting classes since 2008. His hero is Jackie Chan. He first saw a Jackie Chan film when he was eight years' old and since then he has seen every Jackie Chan film three times! Zac also wants to be a professional stuntman. He has done martial arts since he was three years' old. (82 words)

Appendix B.   Example of a corrected text

Appendix C.   Examples of application of scoring system

Example	'Have'	Regular past participle	Irregular past participle	Been + verb + ing	Total (/2)
(Bryan) had lived	0.5	1			1.5
(Bryan and his parents) have been living	1			1	2
(He) studies at British Council since 2012	0	0			0
(He) has have five teachers	1		0		1
(He) had five teacher so far	0		0		0
(Kylie) has been	1		1		2
(Her parents) has own	0.5	0			0.5
(She) has been studying	1			1	2
(Her parents) had brought (her all over the world)	0.5		0.5		1
(She) has been studied at	1			0	1
(He) was seen every film	0		1		1

Supplementary materials

Descriptive statistics for the accuracy scores of present perfect simple comparing combined treatment scores with the comparison group

Group	N	Time 1 (pre-test)				Time 2 (immediate post-test)				Time 3 (immediate post-test)				Time 4 (delayed post-test)			
		Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
ME+WCF	19	.31	.22	.00	.75	.40	.29	.00	1.00	.39	.25	.00	.80	.29	.28	.00	.85
Comp	11	.27	.24	.00	.70	.37	.27	.00	.67	.26	.23	.00	.55	.35	.22	.00	.60

Note. ME = metalinguistic explanation, WCF = direct written corrective feedback, Comp = comparison group.

Descriptive statistics for the accuracy scores of present perfect simple by treatment group

Group	N	Time 1 (pre-test)				Time 2 (immediate post-test)				Time 3 (immediate post-test)				Time 4 (delayed post-test)			
		Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
ME	10	.38	.22	.05	.75	.47	.31	.00	1.00	.46	.28	.00	.80	.36	.25	.00	.75
WCF	9	.24	.21	.00	.60	.33	.26	.00	.75	.32	.21	.00	.75	.22	.30	.00	.85
Comp	11	.27	.24	.00	.70	.37	.27	.00	.67	.26	.23	.00	.55	.35	.22	.00	.60

Descriptive statistics for regular and irregular past participle scores

Group	N	Regular past participles								Irregular past participles							
		Time 1		Time 2		Time 3		Time 4		Time 1		Time 2		Time 3		Time 4	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ME	10	.40	.39	.45	.37	.45	.37	.50	.24	.33	.27	.30	.29	.43	.28	.10	.16
WCF	9	.00	.00	.11	.25	.00	.00	.22	.36	.25	.30	.29	.33	.38	.28	.20	.25
Comp	11	.18	.25	.18	.25	.14	.23	.18	.34	.33	.33	.33	.42	.27	.33	.21	.31
Total	30	.20	.31	.25	.31	.20	.31	.30	.34	.31	.30	.31	.35	.36	.30	.17	.25

Descriptive statistics for gain scores and mean rank scores for accuracy with regular past participles

Group	N	Regular past participles														
		Gain Score 1					Gain Score 2					Gain Score 3				
		Mean	SD	Min	Max	Mean Rank	Mean	SD	Min	Max	Mean Rank	Mean	SD	Min	Max	Mean Rank
ME	10	0.05	0.55	−1.00	0.05	16.65	0.00	0.47	−1.00	0.50	17.30	0.05	0.37	−0.50	0.50	14.65
WCF	9	0.13	0.23	−0.50	0.50	16.39	−0.13	0.23	−0.50	0.00	13.72	0.25	0.38	0.00	1.00	17.67
Comp	11	0.00	0.22	−0.50	0.50	13.73	−0.46	0.27	−0.50	0.50	15.32	0.05	0.35	−0.50	0.50	14.50

Table 12. Descriptive statistics for gain scores and mean rank scores for accuracy with irregular past participles

		Irregular past participles														
		Gain Score 1					Gain Score 2					Gain Score 3				
Group	N	Mean	SD	Min	Max	Mean Rank	Mean	SD	Min	Max	Mean Rank	Mean	SD	Min	Max	Mean Rank
ME	10	0.30	0.33	−0.67	0.34	14.15	0.13	0.23	−0.33	0.34	18.05	−0.34	0.27	−0.67	0.00	11.85
WCF	9	0.04	0.12	0.00	0.34	16.94	0.08	0.24	−0.34	0.34	14.56	−0.17	0.40	−0.67	0.34	15.38
Comp	11	0.00	0.54	−1.00	0.67	15.55	−0.06	0.42	−0.67	0.34	13.95	−0.06	0.47	−0.67	0.67	17.59

Address for correspondence

Mary Gorman
University of Auckland
14 Morgan Street
Methven 7730, Canterbury
New Zealand

marygorman_2003@yahoo.com.au

Biographical notes

Mary Gorman is a recent graduate of the MTESOL programme at Auckland University. She is currently a freelance teacher trainer based in Christchurch, New Zealand. Her research interests include teacher response to constructive feedback and second language acquisition.

Rod Ellis is currently a research professor in Curtin University, Perth Australia. He is also a visiting professor at Shanghai International Studies University and an Emeritus Distinguished Professor of the University of Auckland. He has recently been elected as a fellow of the Royal Society of New Zealand. He has written extensively on second language acquisition and task-based language teaching. His most recent book is *Reflections on Task-Based Language Teaching* (2018) published by Multilingual Matters.